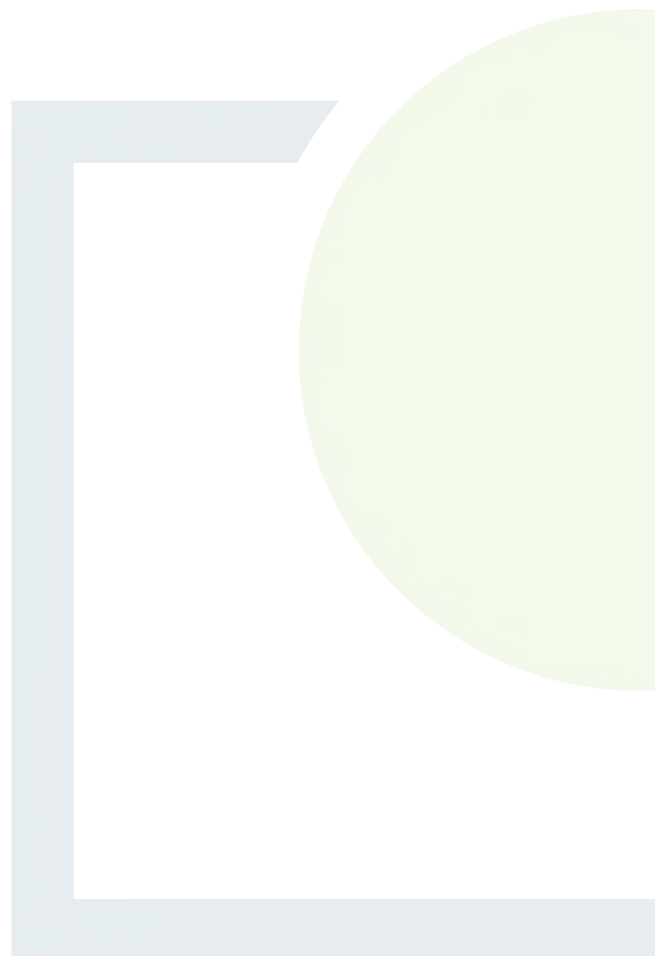




DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Appendix 1

Introduction



APPENDIX 1.1

CVs



Jim Hughes

Director of Energy & Planning



Profile

Jim Hughes is the Director responsible for the Energy and Planning Department. Jim has a BA in Public Administration (Development) from the University of Limerick, a Masters in Town Planning from Queens University Belfast and a Diploma in EIA/SEA Management from University College Dublin. Jim is also a member of the Irish Planning Institute.

Jim is a Qualified Town and Environmental Planner with over 20 years post qualification planning experience in both the private and public sector. He has extensive experience in providing strategic level advice to clients and negotiating with and presenting to local authorities. Jim has experience in the management and coordination and the preparation of planning applications, masterplans and Environmental Impact Statements for large scale infrastructure projects throughout Ireland. He has specific experience in the renewable energy sector. Jim has represented clients on planning enforcement matters and as expert witness at oral hearings. He is also experienced in peer review and preparation of independent planning assessments and appraisals on behalf of clients.

Key Skills

Jim's experience includes:

- Project Director for multiple renewable energy projects throughout Ireland
- Lead planning consultant for major road infrastructure projects and waste projects.
- Highly qualified and experience in Irish and European planning and environmental law.
- Over 19 years as an IPI accredited Town Planner
- Acted as expert witness at ABP Oral Hearings and in Judicial Review Hearings and High Court Cases.
- Extensive experience in Offshore Renewable Energy delivery.

Previous Experience Essentials for This Project

2024

- Project Director for Long Duration Energy Storage Projects.
- Project Director on multiple wind farm projects for a variety of clients.
- Project Director on multiple solar farm projects for a variety of clients.
- Providing strategic planning advice across the Business on Road and Waste Projects.

2023

- Project Director on the Shelmalare Offshore Wind Farm delivering the Environmental and Planning Consultancy aspects of the project.
- Project Director on EIA Scoping and Foreshore license applications for multiple offshore renewable energy projects
- Project Director on the SEA and AA of the Eirgrid Grid Implementation Plan 2023.
- Project Director on multiple onshore Solar Farms
- Project Director on multiple onshore Wind Farms
- Project Director on onshore Battery Storage Energy Systems

Key Information

Qualifications

BA in Public Administration (Development), University of Limerick (2002)

MSc. Town Planning, Queens University Belfast (2004)

Diploma in EIA/SEA Management, University College Dublin (2008)

Professional Memberships

Member of the Irish Planning Institute
FConsEI - ACEI FELLOW
PROFESSIONAL CONSULTING ENGINEERS

Employment History

2020 – Present

Fehily Timoney & Company
Director

2017 – 2020

Fehily Timoney & Company
Associate Director

2015- 2017

Fehily Timoney & Company
Senior Planner

2007 – 2015

Cunnane Stratton Reynolds (SCR)
Senior Planner

2004 – 2007

Cork County Council
Area Planner



Jim Hughes
Director of Energy & Planning



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2022

- Project Director Annagh Wind Farm, Co. Cork
- Project Director Ballinagree Wind Farm, Co. Cork
- Project Director Barnadivane Wind Farm, Co. Cork
- Project Director Fahy Beg Wind Farm, Co. Clare
- Project Director Multiple Solar farm planning projects
- Project Director for a portfolio of 4 no. Synchronous Compensator units.

2020

- Project Director for Croaghaun Wind Farm, Co. Carlow
- Project Director for Coom Green Energy Park, Co. Cork
- Project Director for multiple solar farm planning applications
- Project Director for Dernacart Wind Farm, Co. Laois

2019

- Project Director on the Kipaddogue Peaking Plant ancillary grid infrastructure development, Co. Kerry. Planning Strategy and Environmental Report
- Project Director on a 12 wind turbine development in Co. Kildare, Drehid Wind Farm.
- Project Director on the carrying out of masterplan and feasibility assessment on brownfield industrial sites in Nenagh and Roscrea on behalf of Zinc Properties
- Project Director on up to 10 Solar Farms
- Portfolio management of Shannon Commercial Properties portfolio of properties in mid-west region, including planning appraisals, zoning submissions and masterplan.

2018

- Planning Lead on the South Kerry Greenway EIAR
- Project Director for Derrysallagh Wind Farm Grid Route rEIAR
- Project Director for Raragh Wind Farm Grid Route EIAR.
- Project Director on Kilbarry Residential Development, consisting of 800-unit residential scheme
- Project Director on 19 no. unit residential development, Cork South Docklands
- Project Director 100-unit Roxborough Residential Scheme, Co. Wexford
- Project Director 100-unit Bettystown Residential Scheme, Co. Meath.
- Project Director 300-unit Enniscorthy Residential Scheme, Co. Wexford
- Project Director for Derrysallagh Wind Farm EIA.

2017

- Review of Strategic Environmental Assessment and Appropriate Assessment for the nationwide Catchment Flood Risk Assessment and Management Plans
- SEA Screening for the Bandon Transportation and Public Realm Enhancement Plan
- Provision of planning advice on substitute consent applications for wind farm, Derrysallagh Wind Farm
- Provision of planning advice on the successful Maighne Wind Farm Judicial Review
- Provision of planning advice on the preparation of an EIA for the Raragh Wind Farm cable route planning application
- Project manager for Moanvane Wind Farm proposal, Co. Offaly.

2016

- Preparation of and SEA and AA in conjunction with CAAS Ltd. of the Wind Energy Strategy for Co. Tipperary 2016
- Project Management of Castletownmoore Wind Farm SID application Co. Meath
- Project Director on the preparation of approximately 20 no. solar farm planning applications nationwide
- Preparation and coordination of planning application for 50 no. dwelling units in Croom Co. Cork
- Planning Advice and negotiation for a 49,000 tonne Metal Recycling Facility, Limerick
- Planning advice on the Derragh Wind Farm Judicial Review
- Preparation of an integrated tourism masterplan for tourism site on the banks of the River Shannon Co. Clare
- Preparation and submission of planning application for a recreation facility at the old Burlington Plan, Co. Clare
- Development Plan submissions and retained Planning Consultant for Shannon commercial Properties, provide planning advice and strategy for the management of portfolio of property in the mid-west region.



Jim Hughes

Director of Energy & Planning



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2015

- Management and coordination of a design team for An Bord Pleanála Oral Hearing in Cork for a mixed-use Retail Development, Ballyvolane, Co. Cork
- EIS, RIA and planning application for a mixed-use District Centre Development, Cork
- Project Manager Ardglass Wind Farm, Co. Cork.

2008 – 2014

- SID Pre-Planning consultation with An Bord Pleanála for a Local Authority Marina development in Cork
- Strategic Review of Dursey Island and Cable Car. In conjunction with AECOM and TDI, an overall economic and tourism development strategy was developed for Dursey Island
- Development Plan Monitoring and submissions on behalf of a large international Financial Institution
- EIS, RIA and planning application for a mixed-use retail development, Clonmel
- Feasibility Assessment for Waste to Energy facility, Co. Clare
- Co-ordinating a multi-disciplined team; contributed to EIS and planning submission for the regeneration of the south-western docklands area of Waterford City. The scheme consisted of 11 no. development blocks ranging in height from one floor to thirty floors over basement level
- Coordinated a multi-disciplined team of 5 Architects and preparation of EIS and planning submission for the regeneration of the south docklands area of Cork City. The proposed development was the largest planning application ever to be lodged with Cork City Council. 2007
- Coordinated the lodging of a planning application, contributed to EIA and response to Third Party appeal for a mixed-use development consisting of retail, commercial, residential, tourism, leisure development, Waterford City
- Contribute to EIA for Road and Bridge Infrastructure for Cork City Council including preparation of a scoping document and public consultations.



Rita Mansfield

Subject Matter – Ecology



DESIGNING AND DELIVERING
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Profile

Rita is a Senior Associate Director (Ecology) and Project Manager at Fehily Timoney with twenty years previous experience as a technical lead within the environmental and planning services sector. She specialises in statutory consent and environmental assessment for large scale public and private infrastructure projects in the energy, water (including flood relief schemes) and transport sectors.

She is a qualified ecologist in environmental impact assessment, planning applications (conventional and strategic infrastructure development), climate adaptation, Appropriate Assessment, foreshore licensing, Water Framework Directive, integrated catchment management, and stakeholder engagement.

In the energy sector particular specialist experience in securing statutory consent for combined and open-cycle gas turbines, solar and wind projects, peat fired power stations, utility scale batteries and transmission (110 kV, 220 kV and 400 kV overhead line and underground cable) infrastructure.

In the transport sector, specialist experience in securing statutory consent (including CPO, EIA and AA), environmental detailed design and environmental contract administration in Light Rail and Highways.

In the water sector, specialist experience in securing statutory consent (including planning, CPO, EIA and AA) for sewerage schemes, municipal wastewater treatment, potable water treatment and distribution and flood relief schemes.

Key Skills

- Environmental Impact Assessment (EIAR)
- Appropriate Assessment (AA): Habitats Directive
- Ecological Impact Assessment (EclA)
- IED licence
- Foreshore Licence
- Construction Environmental Management Plan (CEMP)
- Ecological Clerk of Works (ECoW)
- Water Framework Directive
- Environmental design and mitigation
- ArcGIS Desktop /Collector/Online

Previous Experience

Energy Services

- **Killough Solar Farm, Co. Tipperary**
EclA and NIS for the Killough Solar Farm to include scoping ecology surveys and review of EclA and NIS.
- **Dennistown 110kV Grid and Substation / Harmony Solar**
Strategic Infrastructure Development application to An Bord Pleanála for 110 kV infrastructure to support a solar development in Wexford.

Key Information

Qualifications

H. Dip Environmental Protection and
Pollution Control
Sligo Institute of Technology, 2008

BSc. (Hons) Applied Ecology,
University College Cork, 2003

Employment History

2020 – Present

Fehily Timoney & Company
Senior Environmental Specialist

2004 – 2020

Mott MacDonald Ireland Limited
Senior Environmental Specialist



Rita Mansfield

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- **Wind Energy Development County Waterford / EMP**
Strategic Infrastructure Development application to An Bord Pleanála (including EIAR and NIS) for a 10-turbine array. Particular challenges include site topography and peat.
- **Feasibility Studies for Solar and Wind.**
Review feasibility studies for renewable energy developments. Advisory services on surveys required, methodologies in accordance with best practice and advise clients on risks.
- **Peat Extraction All-Ireland /Bord na Mona**
Project Lead for Appropriate Assessment (NIS) of peat extraction activities across ca. 75,000 hectares.
- **Celtic Interconnector PCI Project / EirGrid**
Principal Ecologist for the statutory consents which include foreshore application and Strategic Infrastructure Development application comprising ca. 575 km of submarine cable, underground HVDC / HVAC cable and converter station.
- **Rye Water Valley - Kellystown Project /Confidential Client**
Environmental assessment of options for the upgrade to the power supply to a manufacturing plant in Leixlip comprising new substation and underground cables connecting to an existing line. The site is within the Rye Water Valley SAC. Planning application to the Board under S.182A of the Planning and Development Act 2000 supported by Natura Impact Statement, EIA Screening report and Environmental Report.
- **Converter Station EcOW Services / Siemens**
Project Manager for the delivery of EcOW services for the Celtic Interconnector Converter Station project at Ballyadam, Cork.
- **Wind Energy Development County Galway / RWE**
Strategic Infrastructure Development application to An Bord Pleanála (including EIAR and NIS) for a 13-turbine array. Particular challenges include flood risk and karst geology.
- **Moneypoint – Oldstreet 400 kV Line Refurbishment /EirGrid**
Planning application for refurbishment works to the power line. The Moneypoint - Oldstreet overhead power line is approximately 102.5km in length and runs in a north-east direction from the Moneypoint substation in Kilrush, County Clare to the Oldstreet substation in Portumna, Co. Galway. An extensive Natura Impact Statement was required for this project.
- **Greenlink PCI – Peer Review EIAR & NIS**
Technical Peer Review services for the Greenlink Project of Common Interest. Greenlink is a subsea and underground electricity interconnector cable (with associated converter stations) linking the existing electricity grids in Ireland and Great Britain.
- **ESB Poolbeg Development – Bess and FlexGen**
EIAR and NIS to support four separate planning applications for the development of two flexible thermal generating systems and two battery energy storage systems within the Poolbeg Peninsula.
- **Huntstown Battery Energy Storage System /Viridian**
Senior Ecologist for the preliminary design, statutory planning approval and environmental assessments of BESS development within the Huntstown Power Station site.
- **Open-Cycle Gas Turbines and Utility Scale Battery Developments, 100MW at Kilkenny, Athlone and Cahir /Bord Gáis Energy/Centrica**
Senior Ecologist for the preliminary design, statutory planning approval and environmental assessments of various 100 MWe energy generation technologies (OCGT, gas engines and battery) at three sites across Ireland.
- **West Offaly and Lough Ree Power Plants /Bord na Móna**
Ecological Assessment of the harvesting and supply of peat fuel to West Offaly and Lough Ree Power Plants.
- **Wind Energy Development County Offaly / Bord na Móna**
Strategic Infrastructure Development application to An Bord Pleanála (including EIAR and NIS) for a 10-turbine array. Particular challenges include sensitive ornithology.
- **Open Cycle Gas Turbine Power Plant County Kilkenny / Greener Ideas Limited (GIL)**
Lead ecologist for the Environmental Impact Assessment (EIA), Appropriate Assessment, and planning application for the development of a 100MW OCGT power plant in County Kilkenny. This application was submitted to Kilkenny County Council on behalf of Greener Ideas Limited (GIL), a joint venture company comprising Bord Gáis Energy and Mountside Properties.
- **Cross Shannon Cable /EirGrid**
Senior Scientist for the planning and foreshore applications for this 400 kV submarine cable connecting Moneypoint and Tarbert substations.



Rita Mansfield

Subject Matter – Ecology



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- **Upgrade of Woodland 400kV Substation / EirGrid**

Principal Ecologist (planning and environment) for Section 5 declaration application (planning) for proposed new bay at 400 kV substation.

- **Edenderry Power Plant, County Offaly / Bord na Móna**

Planning permission was sought for the continued use and operation of Edenderry Power Plant up to 2030. Assessment of the in-combination impacts of peat harvesting comprised a significant element of this project.

- **Renewable Exports Source (RES) Scheme – Strategic Environmental Overview:**

The Renewable Exports Source (RES) refers to the strategy for the delivery of large amounts of renewable (wind) generation from Ireland to the United Kingdom via sub-sea interconnector cables under the Irish Sea. SEO Objectives:

- Evaluate the potential impacts of developing wind energy transmission systems interconnecting to the UK on environmental resources and communities;
- Identify sensitive receptors;
- Identify areas of good potential for future development;
- Inform the future network designs and configuration.

Water Services

- **Gort Lowlands Flood Relief Scheme / Galway County Council**

Assessment and development of a flood relief scheme to manage the existing flood risk in Gort Lowlands, and also the potential for significant increases in this risk due to climate change, ongoing development and other pressures that may arise in the future. Project Manager for the environmental services for the feasibility stage of the scheme, which investigates the diversion of overland flood flows in to Kinvarra Bay in Galway. Project deliverables include Appropriate Assessment, Public Consultation, EIAR, Marine modelling, Public Exhibition.

- **Local Network Reinforcement Project / Irish Water**

Environmental lead responsible for environmental and planning reports for wastewater network infrastructure projects throughout Leinster, including site and route selection reports, technical notes, Natura Impact Statements, planning strategy reports and planning applications.

- **Enniscorthy Flood Defence Scheme /OPW**

The development of flood defence scheme to alleviate flooding in Enniscorthy Town. The scheme includes the removal of the Seamus Rafter Bridge, underpinning of the main Wexford to Dublin railway bridge over the River Slaney and the construction of a new road bridge which transverse the River Slaney SAC and approach road ties in to the key strategic routes in the south east on the N30 and N11.

- **Clonakilty Flood Relief Scheme, Ongoing.**

The scheme will protect to the town of Clonakilty from both river and tidal flooding, and includes the construction of a dam, modification to several bridges, 2km of riverbank improvement works, and four pumping stations. Environmental Manager involved in the preliminary design, planning process, detailed design, tender process, and contract administration. Currently overseeing Ecological Clerk of Works role on the construction stage.

- **South Western River Basin District Catchment Flood Risk Assessment and Management (CFRAM) Study / OPW.**

The objective of this study was to accurately map flood risk and to develop management strategies and measures to mitigate flood risk in the South Western RBD. Environmental Manager responsible for the assessment of flood risk in the South West of Ireland as it pertains to environmental impact, the assessment of flood risk management options through multi-criteria analysis (MCA), stakeholder consultation, Appropriate Assessment and Strategic Environmental Assessment.

- **Caraholly Flood study / Mayo County Council**

Preliminary design of a €1million flood relief scheme in Co. Mayo. Senior ecologist responsible for the Natura Impact Statement and environmental considerations report for the planning package to Mayo County Council. S

- **Inniscarra WTP Sludge Treatment / Irish Water**

Senior ecologist for the planning application for sludge treatment facilities.

- **River Basin Management Plan - South Western River Basin District.**

A four-year catchment management study leading to the publication of the River Basin Management Plan and the development of measures to achieve good water quality status in order to comply with the implementation of the Water Framework Directive (2000/60/EC). The purpose of this Directive is to establish a framework for the protection of all waters in order to prevent and reduce pollution, protect the aquatic environment, improve the status of aquatic ecosystems, and promote sustainable water use. Environmental Scientist responsible for the delivery of several national studies and the development of the River basin Management Plans. The project involved detailed data management which was supported through the use of geographic information systems (GIS).



Rita Mansfield

Subject Matter – Ecology



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- **Millstreet WWTP Upgrade/ Irish Water**

Senior ecologist for the Appropriate Assessment (NIS) and Planning Application for the proposed upgrade works to the Millstreet WWTP. The WWTP discharges in to the Munster Blackwater SAC

- **South Westmeath and Lanesborough/Central Longford Water Supply Scheme / Irish Water**

Environmental Lead for the design and procurement of a new waste water treatment plant (WTP) and intake works, upgrade/expansion works to two WTPs, decommissioning of five WTPs and the provision of an extensive network of pipelines and linkages across a large area from Athlone to Mullingar and northwest to Lough Forbes. The upgrade works were being provided to a secure and adequate supply of drinking water in compliance with EU (Drinking Water) Regulations, 2014.

- **Waste Water Discharge Licencing Project, Irish Water**

Project Lead for work programme involving the preparation of reports assessing the impacts of the waste water discharge points from residential agglomerations on protected shellfish waters along the Irish coast.

- **Rossaveel Fishery Harbour / Department of the Marine**

Senior Ecologist for the Environmental Impact Assessment and planning application for the development of a 200m deep water quay in Rossaveel. The EIA assessed both marine and terrestrial environmental impacts across a range of sensitive parameters, i.e. biodiversity, archaeology, traffic, noise and vibration etc. This project is critical to ensuring that continued viable operation of one of Ireland's Fishery Harbour Centres. Planning was granted in 2018.

- **Greystones Harbour Development / Wicklow County Council**

Scientist for the environmental impact assessment. This development included coastal protection works and the development of a 400 berth marina in addition to a significant commercial and residential provision. Key concerns included populations of sand martin, sea kale and public amenity.

- **Waterford City Infiltration Remediation / Waterford City Council**

The infiltration study involved the assessment of the existing combined sewer collection system in Waterford City centre, and recommendations on its upgrade to reduce infiltration to acceptable levels. Employers Representative responsible for scoping, procurement and management of CCTV survey to identify defective sewer in the Waterpark Catchment. Prepared recommendation report for remediation measures, including a cost-benefit analysis to ensure value for money. Prepared contract documents using the Works Designed by the Contractor (CWMF) form of contract for the rehabilitation of the sewers which includes the procurement of specialists. Responsible for preliminary H&S Plan which encompassed significant traffic management issues as well as confined space entry requirements.

- **Effluent Characterisation Study /Environmental Protection Agency**

Project co-ordinator and lead scientist for this year-long study into the characteristics of wastewater discharges from municipal waste water treatment plants across Ireland. The output of the study was an estimation tool to assist WWTP operators in estimating the mass emissions released from their treatment plant. This information is required to be reported to the EPA under law (Pollution Release and Transfer Regulations).

Transport Services

- **Dunkettle Interchange Upgrade Scheme / John Sisk & Son Holdings Ltd**

Environmental Lead for the Detailed Design on the Design & Build contract for the reconfiguration of the Dunkettle Interchange to a free flowing interchange including: A series of direct road links between the N8, the N25 and the N40 and links to the R623 Regional Road in Little Island and Burys Bridge in Dunkettle; 1 grade separated junction arrangement at the existing N25 to the east of the existing Dunkettle Interchange; 4 roundabouts – 2 at the grade separated junction and 2 at tie ins with the existing road network; 51 major structures of various forms; several culverts where the scheme crosses watercourse or intertidal area; pedestrian and cyclist facilities; and modification of existing Silversprings junction on the N8 Lower Glanmire Road.

- **Cork Southern Distributor Link Road / Cork City Council**

Gene is the Project Manager for the Southern Distributor Link Road, a proposed new road link between the N27 and Sarsfield Road with the potential to also link to the N71 and Cork Airport. Gene is responsible for delivery of the route selection process as per Phases 1-2 of the NTA's Guidelines for the Management of Public Transport Investment and Cost Management Guidelines and Phases 0-1 of DPER's Public Spending Code 2019.

- **Wexford Town to Rosslare Strand Greenway / Wexford County**

Environmental Coordinator for the development of a proposed greenway extending between Wexford Town and Rosslare Strand Train Station. The appointment covers PSDP, Route Selection, Preliminary Design, Environmental Assessment, including preparation of an EIAR and Statutory Consent Processes.

- **N11/N25 Oilgate to Rosslare Harbour / Wexford County Council**

This project involves the development of the N11/N25 national primary road between Oilgate and Rosslare Harbour Co. Wexford. The scheme is approximately 30km of motorway/dual carriageway with a major crossing of the River Slaney.



Rita Mansfield

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Technical Lead responsible for the delivery of environmental services necessary to deliver Phases 1 to 4 of Transport Infrastructure Ireland's Project Management Guidelines (PE-PMG-02041) and Phases 1 to 4 of the National Roads Authority's Project Management Guidelines 2010 (NRA PMG 2010). The project is currently at Phase 1.

- **Western Rail Corridor Redevelopment, Ireland / Iarnród Éireann**

Feasibility study and business case assessment for reopening of the disused railway line between Athenry and Claremorris in the west of Ireland. Senior Ecologist, responsible for the qualitative assessment of the effects on biodiversity and the environment from the proposed reopening of the railway between Athenry and Claremorris. Assessment was carried out using GIS data and through consultation with national environmental protection agencies.

- **N25 New Ross Bypass PPP Scheme / TII**

Construction of approximately 14.8km of National Route, 13.6km of Dual Carriageway and 1.2km of Single Carriageway and associated works. It includes an Extrados bridge structure which consists of two 230m spans with an overall length in region of 900m. It also includes over 40 other structures comprising of 1 Railway Bridge, Underbridges, Overbridges, Underpasses, Culverts, Retaining Walls, Environmental Barriers, Sign Gantries, and VMS. Environmental Specialist, responsible for the certification of design and construction insofar as it pertains to environmental matters.

- **N71 Footpath / Cycleway: Glengarriff village to NPWS Nature Reserve /Cork County Council**

Feasibility assessment and assessment of design alternatives for the development of pedestrian and bicycle access between Glengarriff village and the nature reserve. The alignment passes through the Glengarriff Woods SAC and as such the assessment of alternatives in Appropriate Assessment is required.

- **Cork Bridge Rehabilitation, Cork, Ireland / Cork County Council.**

Repair of approximately 50 road bridges located around the Cork region. The list of structures included predominately masonry structures dating from the 13th to 19th centuries, including a number of protected structures. Environmental Team Leader, responsible for the preliminary ecological appraisal (PEA), screening for Appropriate Assessment, Natura Impact Statements, and Ecological Impact Assessment (EclA) including invasive species survey for proposed repair works to the bridges in County Cork. Devised and implemented mitigation (under licence from NPWS) for the exclusion, protection, and enhancement of several bat roosts at various bridges.

- **N18 Gort to Crusheen Dual Carriageway, Galway County Council**

Scientist for the environmental impact assessment for 22km road scheme in County Clare and Galway.

- **N22 Baile Bhuirne to Macroom Road Development (Ph 5-7) / Cork County Council**

The scheme is an approximately 22 km Type 2 Dual Carriageway, to be constructed offline. It will require construction through challenging terrain which varies through the scheme from hilly, remote land with rock outcrops at the western end, to low lying pasture lands to the east of Macroom. Significant ecological constraints on the scheme include Kerry Slug, Freshwater Pearl Mussel, and Lesser Horseshoe Bat. Responsibilities at this stage (Tender Assessment) in the scheme development include co-ordination of the ecology team, preparation of contract documents, provision of technical environmental advice, consultation with key stakeholders (e.g., NPWS), assessment of Tenders.

- **Limerick Depot Metropolitan Area / Limerick City & County Council.**

Design and development of a consolidated operations depot for the Metropolitan Area operations including Cleansing & Parks, Housing Maintenance, Road Maintenance, Burial Grounds, Water, Drainage, Surface Water Maintenance, Storage of Emergency Equipment and Salt Barns. The Depot will occupy a space between 4 – 6 acres. Senior Ecologist responsible for the management of environmental impact assessment of the proposed development.

- **Bergen Bybanen Light Rail System Phase 3 & Depot, Norway / Hordaland Fylkeskommune, 2016.**

Detailed design and construction of the Bergen light rail transport system in Norway. The project comprised 7.1km of double track from Rådal to Flesland airport, including 2.8km of tunnels and over 1km of structures and the development of a tramwash and workshop at a site in Flesland (approximately 20540m²). Environmental Specialist responsible for the construction management environmental specification, applications for discharges to waters for construction and operation of the scheme, constraints study for the workshop site and light rail line and environmental sustainability recommendations for the workshop.

- **N11 Arklow- Rathnew PPP Contract / BAM, 2013.**

Provision of 16.5km of high-quality dual carriageway between Arklow and Rathnew in Co. Wicklow, a motorway service station, and a grade-separation of the N7 Newlands Cross Junction in Dublin. Senior Ecologist, responsible for pre-construction environmental surveys and environmental and ecological design for:

1. Section A – dual carriageway approximately of 16.3km in length between the north end of the existing Arklow Bypass and the southern end of the existing Newtownmountkenedy to Ballynabarny road scheme.
2. Section C – new motorway services area on the existing M11 near Gorey, Co. Wexford.



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3. Section D – upgrade to the Newlands Cross junction (N7 Nass Road junction with the Belgard / Fonthill Road [R113]) to a grade separated junction.
- **East Coast Railway Line between MP19% and MP22½, County Wicklow / Iarnród Éireann, 2014.**
Appropriate assessment for emergency railway safety fencing works on the main railway line between Dublin City and Rosslare Harbour. This project required an assessment to identify and control ecological impacts on an area of land protected under the habitats directive candidate special area of conservation (cSAC) and the bird's directive special protection area (SPA). Of particular relevance to the project is the habitat 'perennial vegetation of stony banks'. The railway line sits on top of a shingle beach which is known to support this vegetation type.
In addition, the shingle beach is an important nesting area for Little Tern (*Sternula Albifrons*). Significance of impact was assessed, and mitigation measures were prescribed.
 - **National Roads Authority Development of and Consolidation of (D&B) and (PPP) Works Requirements, 2010.**
Technical advice and support in preparing consolidated works requirements for use on contracts tendered using both the PPP and the D&B mechanisms. Responsible for the development of clauses to ensure protection of the environment at design and construction stages of road scheme development. This included run-off and sediment control, mitigation for specific protected species e.g., otter and bat, mitigation for water crossings, management of extracted material, measures to control noise and lighting impacts, landscaping measures, control of invasive species, control of noxious weeds, pre-construction, and post-construction survey requirements.

Other Services

- **Grid Implementation Plan 2023-2028 / EirGrid**
Project Manager for the Strategic Environmental Assessment and Appropriate Assessment of the Grid Implementation Plan 2023-2028 for the Electricity Transmission System in Ireland.
- **Local Authority Environmental Management System, Environmental Protection Agency**
Project Scientist for the development of a web-based environmental management system for local authorities in the tracking and managing of the implementation of their statutory environmental protection functions. This project involved extensive training of personnel from all local authorities in Ireland in environmental legislation and environmental enforcement prioritisation for compliance with the European Commission Recommendation on Minimum Criteria for Environmental Inspections.
- **Mid-Western Area Strategic Plan**
MWASP was a strategic land use and transportation plan for the Mid-West region with the objectives of ensuring sustainable and balanced growth in the region for the period 2010 – 2030. The requirement to undertake an Appropriate Assessment (also referred to as Habitats Directive Assessment) derives from Article 6 (3) and 6 (4) of the Habitats Directive (92/43/EEC). All Natura 2000 sites located within 15km of the MWASP boundary, including those within the boundary itself, were identified. The potential impacts of the plan policies and strategies were assessed, and mitigation prescribed, as necessary.
- **Irish Offshore Oil and Gas Strategic Environmental Assessment (IOSEA6)**
Technical Peer Reviewer for the SEA Scoping for the Department of the Environment, Climate and Communications (DECC) Plan for Issue of Petroleum Exploration and Production Authorisations in Irish Offshore Waters for the period to 2030 (currently in Draft). The SEA assess any potential impacts associated with activities conducted under petroleum exploration and production authorisations within Irish offshore waters.
- **AER / WWDL Technical Assistance (ongoing) Client / Irish Water**
Project manager responsible for the co-ordination and management of annual environmental returns (AER) returns from Local Authorities in the Southern Region of Ireland between 2014 to present. Prepared reports to satisfy licence conditions including shellfish water assessments, storm water overflow risk assessments and priority substances reports.
- **Guidance the Licensing of Discharges to Surface Waters and to Sewer / Water Services Training Group**
Manager for the development of guidance for local authorities on their functions and responsibilities under water pollution legislation. Developed supporting technical training and delivered training to in excess of 500 local authority staff through the Water Services Training Group's five regional training centres.



Trevor Byrne

Associate Director and Project Manager



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Profile

Trevor works as an Associate Director for Fehily Timoney and Company. Trevor holds a master's degree in Sustainable Energy Systems from the University of Edinburgh and an honours degree in Civil Engineering following his studies at Edinburgh Napier University and Cork Institute of Technology. Trevor is a senior project manager within the Planning and Energy division at FT and is a chartered engineer with Engineers Ireland. His primary area of expertise is in the design and construction of renewable energy projects and urban developments.

Trevor gained much of his experience working in the UK renewable energy industry and has delivered a wide variety of projects employing different technologies including onshore wind, hydroelectric and solar PV. He also has significant experience working in the Irish construction industry and in the United States on a variety of environmental projects focusing on renewable energy, solar PV, water treatment and surface water and wastewater treatment projects using green infrastructure.

Trevor has considerable environmental engineering and environmental impact assessment experience and is a proven project manager with a track record in successfully guiding large scale projects through the consenting process as well as construction stage. He also has significant on-site experience relating to managing the construction of renewable energy developments and environmental coordination roles. Trevor has experience in the following:

- Project Management
- Renewable Energy Development Design and Construction
- Environmental Impact Assessment and Appropriate Assessment
- Engineering Design
- Transportation Impact Assessment and Traffic Management Plans
- Environmental Coordination
- Technical and Public Consultation
- Oral Hearing
- Site Supervision
- Detailed Design
- Strategic Infrastructure Developments

Meeting the Minimum Requirements of the Role

- BSc. (Hons) in Civil Engineering with first class honours (2008); BEng. In Civil Engineering (2005); MSc in Sustainable Energy Systems (2009);
- Chartered Engineer (Engineers Ireland) 2017;
- Over 15 years of industry experience;
- Over 10 years of project management experience in the renewable energy industry.

Previous Experience Essentials for this Project

- **Killough 110kV GIS Substation**
This substation was submitted for planning to ACP pursuant to Section 182 of the Planning & Development Act 2000. Trevor was responsible for the Traffic and Transportation Assessment and also preparation of the construction methodology.
- **Fahy Beg Wind Farm, 2023**

Key Information

Qualifications

MSc. Sustainable Energy Systems
University of Edinburgh
2008-2009

BSc. (Hons), Civil Engineering
Edinburgh Napier University
2006-2008

BEng in Civil Engineering
Cork Institute of Technology
2002-2005

Professional Memberships

Chartered Engineer, 2017

Member of Engineers Ireland, 2010

Employment History

2016 - Present

Fehily Timoney and Company
Associate Director

2012 – 2016

Greenspan, Edinburgh, UK
Project Manager

2010 – 2012

Cardinal Resources LLC,
Pittsburgh, PA, USA
Project Engineer

2005 – 2007

O'Shea Leader Consulting Engineers,
Cork
Graduate Engineer



Trevor Byrne

Associate Director and Project Manager



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Fahy Beg is an 8 no. turbine wind farm in County Clare. FT prepared a planning application and EIAR for the project on behalf of RWE Renewables Ireland. Trevor project managed all aspects of the environmental impact assessment and planning application for the project.

As well as this Trevor also lead the environmental coordination and engineering design of all onsite and offsite infrastructure for the proposed development including all infrastructure associated with the wind farm, grid connection and turbine delivery route, working closely with the client's electrical consultant. The application was successfully submitted to the local authority in early 2023.

- **Ballinagree Wind Farm, 2022**

Ballinagree is a 20 no. turbine wind farm development in County Cork with an installed capacity of up to 132 MW. FT prepared a planning application and EIAR for the project on behalf of Orsted and Future Energy Ireland. Trevor project managed all aspects of the environmental impact assessment and planning application for the project. As well as this Trevor also lead the environmental coordination and engineering design of all onsite and offsite infrastructure for the proposed development including all infrastructure associated with the wind farm, grid connection and turbine delivery route. The application was successfully submitted to an Bord Pleanála in early 2022 through the strategic infrastructure developments (SID) consents process.

- **Croaghaun Wind Farm, 2021**

Croaghaun is a large-scale onshore wind development in Co. Carlow comprising up to 7 wind turbines with a total installed capacity of up to 40MW. FT prepared a planning application and EIAR for the project on behalf of Future Energy Ireland. Trevor project managed all aspects of the environmental impact assessment and planning application for the project. As well as this Trevor also lead the environmental coordination and engineering design of all onsite and offsite infrastructure for the proposed development including all infrastructure associated with the wind farm, grid connection and turbine delivery route. The application was successfully submitted to the local authority in early 2021.

- **Coom Green Energy Park, 2020**

Coom Green Energy Park is a large-scale onshore wind and battery storage development in Co. Cork comprising up to 21 wind turbines with a total installed capacity of up to 120MW. FT prepared a planning application and EIAR for the project on behalf of Coillte and Brookfield Renewables Ireland. Trevor project managed all aspects of the environmental impact assessment and planning application for the project and acted as environmental coordinator for the EIA. As well as this Trevor also lead the engineering design of all onsite and offsite infrastructure for the proposed development including all infrastructure associated with the wind farm, grid connection and turbine delivery route. The application was successfully submitted to an Bord Pleanála in early 2020 through the strategic infrastructure developments (SID) consents process.

- **South Kerry Greenway (Kerry County Council) 2019**

South Kerry Greenway (SKG) is a 32km long proposed recreational trail in Co. Kerry. Trevor produced the construction and environmental management plan for the greenway as part of the environmental impact assessment for the project as well as preparing the traffic impact assessment for the project on behalf of Kerry County Council.

- **Teevurcher Windfarm, 2018**

Teevurcher is a development in Co. Meath. FT are acting as designer to the Design and Build contractor, Roadbridge, for the construction of all onsite infrastructure associated with the development. Trevor successfully project managed all aspects of the detailed design for the project, liaising with the main contractor's management and coordinating the design team including the development's environmental design commitments.

- **Moanvane Windfarm, 2017**

Moanvane is a development in Co. Offaly. FT acted as the planning consultant for the client and project supervisor for the design stage of the project. Trevor produced the outline construction and environmental management plan for the site as part of the environmental impact assessment for the project as well as producing the traffic and transportation section of the environmental impact assessment including a traffic impact assessment.

- **Knockacummer Windfarm Grid Connection, 2017**

Knockacummer is a 20km long 110kV grid connection project in Co. Cork for which FT acted as Employer's Engineer for the client. Trevor managed the coordination and supervision of full-time site staff throughout the construction stage to ensure that the project was delivered in accordance the engineer's designs and specifications, the client's health and safety framework as well as statutory obligations, and the project's environmental management plan.

- **Gortfinbar Wind Farm, 2016**

Gortfinbar is a 5 no. wind turbine development in Co. Tyrone. FT are acting as designer to the Design and Build contractor, DMKL, for the construction of onsite roads, hardstandings, substation and all other infrastructure associated with the wind



Trevor Byrne

Associate Director and Project Manager



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farm development. Trevor successfully project managed all aspects of the detailed design for the project, liaising with the main contractor's management and coordinating the design team.

- **Sliabh Bawn Wind Farm, 2016**

Sliabh Bawn is a 20 turbine project in Co. Roscommon. FT acted as designer to the Design and Build contractor, Alexander for the construction of a series of walking trails, riding tracks and recreational areas throughout the wind farm.

Trevor is managing the design contract on behalf of FT for this project and ensured the project design was delivered in accordance the engineer's the client's health and safety framework as well as statutory obligations, and the project's environmental management plan.

- **Moanvane, 2017**

Moanvane is a development in Co. Offaly. FT acted as the planning consultant for the client and project supervisor for the design stage of the project.

Trevor produced the outline construction environmental plan for the site as part of the environmental impact assessment for the project as well as producing the traffic and transportation section of the environmental impact assessment including a traffic impact assessment.

- **Rosspile Solar PV, 2019**

Rosspile is a ca. 75MWp ground mounted solar PV scheme on a site of approximately 153 hectares in County Wexford. The project consists of solar photovoltaic panels on ground mounted steel frames, an electrical control building and associated compound, inverter/transformer stations, underground power and communication cables, boundary fencing, internal access tracks and associated drainage infrastructure, CCTV cameras and all associated site services and works. The project also incorporates significant battery storage on site as part of its design. A Natura Impact Statement accompanied the planning application.

Trevor acted as project manager for this project which successfully achieved planning permission in 2019 and is one of the largest consented projects of its type in Ireland to date. Duties included coordination of all environmental assessments for the project. The comprehensive environmental report included assessments of potential impacts on hydrology, water quality, biodiversity, traffic and transportation, population and human health, cultural heritage, landscape and visual, and glint and glare.

- **Barnahely Battery Energy Storage, 2018**

Barnahely is a battery energy storage system (BESS) project in County Cork. Trevor carried out the outline civil engineering and drainage designs for the site. Trevor also prepared the outline construction and environmental plan for the project along with carrying out the traffic impact assessment.

- **Millvale Solar PV, 2017**

Millvale is a 15MWp solar photovoltaic generation scheme near Rathnew in Co. Wicklow for which FT were appointed by the client, BNRG, to gain planning permission. Trevor project managed the planning application and associated Environmental Report for the proposed Wicklow Solar Farm, including a 38 kV substation and associated ancillary works. Lead contributor to the Environmental Report, and responsible for coordination of overall project team members, including landscape and visual, ecological and archaeological sub-consultants. Responsible for extensive consultation during the planning process, including attendance at meetings with key stakeholders. Millvale was one of the first large scale solar farms commissioned in Ireland under RESS.

- **Ralphtown Solar Farm, Co. Wexford – Planning Application, 2016**

Project Engineer responsible for site layout design for the proposed 16 MW Ralphtown Solar Farm comprising approximately 61,500 photovoltaic (PV) panels on ground mounted steel frames within a site area of approximately 32 hectares. Key contributor to the Environmental Report, and responsible for preparation of the Construction and Environmental Management Plan (CEMP).

- **Brookhill Solar Farm, Co. Wexford – Planning Application, 2016**

Project Engineer responsible for site layout design for the proposed 40 MW Brookhill Solar Farm comprising approximately 154,000 photovoltaic (PV) panels on ground mounted steel frames within a site area of approximately 90 hectares. Key contributor to the Environmental Report, and responsible for preparation of the Construction and Environmental Management Plan (CEMP).

- **Dennistown Solar Farm, Co. Wexford – Planning Application, 2016**

Project Engineer responsible for site layout design for the proposed 20 MW Dennistown Solar Farm comprising approximately 77,000 photovoltaic (PV) panels on ground mounted steel frames within a site area of approximately 40 hectares.



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Associate Director and Project Manager



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Key contributor to the Environmental Report, and responsible for preparation of the Construction and Environmental Management Plan (CEMP).

- **Cairnmore Hybrid Wind and Solar Park, Scotland, 2015**

Cairnmore is a 4MW solar PV park in North Aberdeenshire. The site is located on a farm with a pre-existing wind farm with which the SPV scheme shares a grid connection.

Trevor acted as project manager and coordinated the design, construction and procurement of the project on behalf of the client. The scheme was commissioned in early 2016 and is now generating successfully in tandem with the existing wind farm.

This was the largest combined technology scale project of its type in Scotland at the time of commissioning.

- **Cashile, Hydro, 2015**

Cashlie is an estate near the upper end of Glen Lyon in the Perthshire Highlands in Scotland. Trevor successfully project managed the construction of 2no. run of river hydroelectric generation schemes concurrently and the schemes were successfully commissioned in December 2015.

Trevor managed all aspects of the development detailed design and construction stage on behalf of the client as well as compliance with the project's environmental plan and various planning conditions. Challenges included working in remote location in extreme conditions and the use of helicopters for the lifting of construction materials to the intakes.

- **Dow Corning Corporate Campus Storm Water System, USA, 2012**

The project involved the Design and construction of a wastewater system with pumping station for a Fortune 100 client at their corporate headquarters in Michigan. The challenges associate with this project involved the flat topography of the site and phasing the project to facilitate the day to day workings of a busy campus. Trevor acted as a design engineer for the environmental consultant on this project.

- **Dow Corning Silicon Plant, Brazil, 2011**

The project involved the design and construction of a storm water system for a large silicon smelting plant in southern Brazil incorporating green infrastructure engineering for sustainable storm water management.

Trevor acted as a design engineer for the project and made visits to the site for the purposes of project evaluation and inspection of constructed infrastructure.

- **Lefever Landfill, Pennsylvania, USA, 2010-2012**

This project involved civil engineering and design support for a large residual waste disposal landfill for a coal fired power plant. Trevor was the main engineering contact for the site contractor and provided design drawings and specifications for the continuous operational development of the landfill.

- **Red Bird Solar Powered Water Treatment System, USA, 2010-2012**

Worked as a design engineer in the development of a patented solar powered potable water treatment system designed to provide drinking water to remote communities, disaster zones and underdeveloped regions.

Worked closely with a large international manufacturer (Pierce Oshkosh) to construct units which would go on to act as demonstrators in West Africa. Included spending a number of weeks in the factory supervising the construction and testing of two prototype systems. Design input included pressure pipe system, filtration tanks, disinfecting dosing tanks, solar PV and battery power system, bespoke solar PV mounting system design, control system design and testing.



Conor Auld

Principal Planner



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Profile

Conor holds a MSc in Urban and Rural Design and BSc in Environmental Planning, both from Queen's University Belfast. He is a Principal Planner with over 10 years of professional experience in private and public sector roles in Ireland and the United Kingdom; in excess of 9 years having been spent working in private sector planning in Ireland. Conor graduated from Queen's University Belfast in 2013 with a MSc in Urban Design (Commendation) and in 2012 a BSc (Hons) in Environmental Planning (2.1) and is currently a Principal Planner with Fehily Timoney.

Previous Experience Essentials for this Project

Preparation and review of application documentation (including EIAR) for a mixed use, wind farm and residential development as well as preparation of first party appeal of local authority decision to refuse. Experience in preparation of further information response material (including analysis and response to prescribed body and third party submissions to assist same).

Conor has also led the preparation of feasibility assessments for a number of potential development types across Ireland, and is experienced in leading multi-disciplinary teams to prepare planning applications from initial design to lodgement.

Residential and Mixed Use Projects

- **Parnell Square Cultural Quarter, 2018**

The intent of the Parnell Square Cultural Quarter is to provide a new City Library for Dublin. Conor worked in a Coordination role as part of preparation of Section 175 application to An Bord Pleanála for joint applicants Dublin City Council and PSQ Developments Limited. Formed the important link between Design Team and EIAR Team as part of EIAR coordination role and preparation of chapters such as Population & Human Health and overall formatting of the EIAR document into an accessible format.

- **Cherrywood SDZ Planning Scheme Planning Applications, 2023**

Assisted in the preparation of a Planning Appraisal of Project Eden Portfolio for our private client comprising approximately 2,500 dwellings, two major parks and a Village Centre. Currently involved in master planning of a client's landholding within the Cherrywood SDZ lands including preparation of Pre-Planning submissions and attendance at Pre-Planning meetings through to lodgement of planning applications for residential developments, ensuring compliance with the SDZ Planning Scheme as well as post grant of planning compliance submission preparation.

- **Capital Dock, 2020**

Capital Dock is one of Ireland's most prestigious mixed-use developments and includes the tallest building in Dublin. Working in a direct client facing role, Conor was involved with the preparation of planning application documents and coordination as part of revision planning applications to the overall permitted scheme and management of planning compliance involving coordination and negotiation between project managers, design team members and Planning Authority staff.

- **Adamstown SDZ Planning Scheme Planning Applications, 2023**

Involved through preplanning stage to lodgement and compliance submissions of various planning applications throughout the SDZ Planning Scheme area for a range of clients. These range from residential schemes, to community assets such as Community Centre, pitches and parks.

Wind Energy Projects

- **Fahy Beg Wind Farm** - Fahy Beg is an 8 no. turbine wind farm in County Clare. Conor assisted with assessment of observations on this project and response to same as part of the first party appeal to An Bord Pleanála in relation to Local Authority refusal.
- **Balinagree Wind Farm** - Ballinagree is a 20 no. turbine wind farm development in County Cork with an installed capacity of up to 132 MW. Conor assisted with the preparation of the further information response material (including analysis and response to prescribed body and third party submissions to assist same).
- **Counnagappul Wind Farm** - Conor Assisted with the preparation of the Strategic Infrastructure Development application to An Bord Pleanála (including EIAR and NIS) for a 10-turbine array (PA93.318446). Conor assisted with the environmental impact assessment and planning application for the project. Particular challenges at this site include steep site topography, Annex I habitats on site and presence of birds of conservation concern.

In addition to the above, Conor is assisting with the preparation of additional wind farm projects as well as advising clients on planning strategy for mixed technology renewable energy projects.

Solar Energy Projects

Preparation of planning application material, advise on planning strategy (including grid connections) and project management for solar PV renewable energy developments. Each solar application undertook public consultation with local communities.

Each solar application included a detailed environmental and planning report which assessed the impact of the solar development on a multitude of factors including: Biodiversity, Cultural Heritage, Glint and Glare, Landscape and Visual Impact, Noise and Hydrology.

Other reports, documents and drawings are also included as part of the planning application for said solar development.

Experience in contributing and reviewing reports such as Appropriate Assessment Screening Reports, Natura Impact Statements (NIS), Construction Environmental Management Plans (CEMP), Flood Risk Assessments. In addition, all application material reviewed and checked to ensure a valid application can be submitted and ensuring a successful outcome for said application.

Preparation and review of solar feasibility assessments and due diligence in the following counties:

Cork, Kerry, Roscommon, Mayo and Kildare.

Energy Storage Projects

Key Information

Qualifications

Advanced Diploma – Planning and Environmental Law, The Honorable Society of King's Inns, 2023

MSc Urban and Rural Design – Commendation, Queen's University Belfast, 2013

BSc (Hons) Environmental Planning, Queen's University Belfast, 2012

Professional Memberships

Corporate Member – Irish Planning Institute (IPI)

Licentiate member of the Royal Town Planning Institute (RTPI)

Employment History

2023 – Present

Fehily Timoney & Company
Principal Planner

2017 – 2023

Stephen Little & Associates
Executive Planner

2016 – 2017

Orkney Islands Council
Graduate Planner

2016

Southend on Sea Borough Council
Graduate Planner



Conor Auld
Principal Planner



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- **Ballynahone Long Duration Energy Storage Facility** – Conor was assistant Project Manager and lead planning advisor for this project which involved the use of iron-air battery storage in Donegal. Conor also prepared the Planning Statement, Planning Strategy and EIA Screening inputs as well as the response documents for appeals received.



Evan Rossiter

Senior Project Planner

CV 01



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Profile

Evan holds BSc in City Planning and Environmental Policy and a MSc in Regional and Urban Planning.

He has 2 years postgraduate experience and is a Senior Project Planner with Fehily Timoney.

Evan has experience in preparing planning applications for small, medium and large scale developments, preparing responses to requests for further information and clarification of further information, compliance submissions, first and third party appeals, resolving enforcement cases, preparation of material for oral hearings and strategic infrastructure developments.

Key Skills

Evan's key skills include:

- Good Communication Skills
- Committed and hard working
- Ability to work in high-stress and pressured environments
- Ability to lead a team of people efficiently and effectively

Previous Experience Essentials for this Project

• Project Waterfront, Ongoing

This project involved the development of one of the last remaining sites in the North Lotts and Grand Canal Docks Strategic Development Zone (SDZ). The development at a site known as City Block 9 involves the development of commercial and residential buildings. Evan was part of the project design team and was involved in the preparation of planning applications for: 3 commercial office blocks (referred to as Blocks 1, 2 and 3), multiple amendment applications for Block 2 (currently under construction and soon to be the European Headquarters for Citi Bank Europe plc), a planning application for a 25-storey residential building delivering 550 apartment units, discharging of compliance submissions and project management.

The need for amendment applications arose as a result of Client requirements and also due diligence reviews conducted by the project team.

• Glass Bottle Site, Capital Value, Ongoing

This project involved the development of a c.15.06 ha site known as the former Irish Glass Bottle and Fabrizia Sites, Poolbeg West, Dublin 4. The site also falls within the Poolbeg West Strategic Development Zone (SDZ) and aims to deliver an extensive mixed-use development. Evan was part of the project team and was involved in: the preparation of planning application documentation and planning applications for multiple residential apartment blocks, a community and innovation hub (referred to as Block P), a 228 no. bedroom hotel, various amendment applications for permitted development on site, discharging of compliance submissions, and project management.

The need for amendment applications arose as a result of Client requirements and due diligence reviews conducted by the project team.

Key Information

Qualifications

BSc City Planning and Environmental Policy, University College Dublin, 2022

MSc Regional and Urban Planning, University College Dublin, 2023

Professional Memberships

Graduate member of the Irish Planning Institute

Licentiate member of the Royal Town Planning Institute (RTPI)

Employment History

2025 – Present

Fehily Timoney & Company
Senior Project Planner

2022 – 2025

Tom Philips and Associates
Planner



Evan Rossiter

Senior Project Planner

CV 01



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- **St. Francis Hospice Extension, c. €29.8m, 2023/2024**

This project involved the development of a two-story over basement extension onto the existing St. Francis Hospital building delivering 24 no. additional, single occupancy, palliative care rooms for patients.

- **BESS Application and Minor Amendments to a Data Centre Development at Orion Business Park, Ballycoolin, Dublin 15, 2024**

This project involved obtaining planning permission for the construction of a Battery Energy Storage System (BESS) for a permitted Data Centre and incorporating minor amendments to the existing permission which was being built. These amendments were to facilitate Client requirements and regularise unauthorised development, which were identified as a result of conducting an extensive review of planning documentation, drawings, and conditions. Evan was the project lead and point of Client contact and was involved in the preparation of planning application documentation, review of consultant inputs, and project management. The Application received final planning permission in the second half of 2024



Ida Wulff

Graduate Planner



Profile

Ida holds a Masters in Planning and Sustainable Development in University College Cork. She is a Graduate Planner with Fehily Timoney in the Energy and Planning sector. Ida has a keen interest in all areas of planning, renewable energy, and sustainable development.

Ida specializes in preparing EIAR Chapters for wind farms and associated developments to industry standards.

Ida has experience in preparing planning applications for active travel paths and greenways as well as remedial works within urban/rural settings.

She is currently a Graduate Member of the Irish Planning Institute and a Licentiate Member of the Royal Town Planning Institute.

Key Skills

Ida's key skills include:

- Planning Knowledge
- Report Writing
- Presentation
- GIS
- Community Consultation

Previous Experience Essentials for this Project

- **Littleton Wind Farm, 2026**
Prepared EIAR Chapters in line with industry standards.
- **Littleton Peat Extraction Substitute Consent, 2026**
Prepared rEIAR Chapters in line with industry standards.
- **Cloonkett Wind Farm, 2025**
Prepared EIAR Chapters in line with industry standards.
- **Coom Green Energy Park Grid Connection, 2026**
Prepared EIAR Chapters in line with industry standards.
- **Cliff Protection at Dunmore East, 2025**
Prepared planning documents related to remedial works and amenity area in ecologically sensitive area.

Key Information

Qualifications

MPlan Planning and Sustainable Development
University College Cork
September 2023 - June 2025

BSc International Development and Food Policy
University College Cork
September 2017 - May 2021

Professional Memberships

Royal Town Planning Institute
Licentiate Member

Irish Planning Institute
Graduate Member

Employment History

2025 – Present

Fehily Timoney & Company
Graduate Planner

2024 – 2025

Fehily Timoney & Company
Planning Intern



Anthony Ryan

Project Planner



DESIGNING AND DELIVERING
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Profile

Anthony graduated with First Class Honours from both the Master's in Planning and Sustainable Development (MPlan) at University College Cork and the B.A. in Heritage Studies from Galway-Mayo Institute of Technology, Galway.

Before joining FT, Anthony worked as a Graduate Town and Environmental Planning Consultant for The Planning Partnership Planning Consultants, Cork and the Department of Strategic Planning & Economic Development in Cork City Council. Since joining FT in 2021, Anthony has worked on a number of wind and solar renewable energy projects. Anthony prepares planning statements and environmental assessments, and project manages these projects into the planning system.

Key Skills

- Research and report writing
- Microsoft Word, PowerPoint and ArcGIS
- Strategic Planning
- Project Management
- Full/Clean Irish driving licence and Safe Pass holder

Previous Experience

• The Planning Partnership, Cork, 2020-2021

Anthony was a Graduate Planning Consultant. His role involved working within the Town, Environmental and Retail Planning team on projects which involved a varying workload while working within the office or remotely delivering projects within a deadline and to a professional standard. His responsibilities required working on projects of varying scale and nature, and included stakeholder interaction, desk-based research, and site visits to prepare assessments and reports for residential, commercial, retail and mixed-use development, as well as renewable energy projects and Development Plan submissions.

Anthony used Microsoft office suite such as Word, Excel and PowerPoint and research tools such as ArcGIS to draft and prepare multi-source reports such as Planning Reports, Replies to Requests for Further Information (RFI) and Planning Status Reports. These required attention to detail and high standards of presentation and allowed Anthony to develop his communication, research and report writing skills and expand his knowledge of the Irish Planning System and Irish and Policies, as well as European planning and environmental legislation such as Birds and Habitat Directives.

• Woodies D.I.Y & Garden Centre, Galway and Cork, 2008-2020

Anthony was a Store Horticulturalist. He was responsible for managing all aspects of Garden Centre operations and maintaining a customer-focused shopping experience through practical gardening and plant advice, training, communication, and teamwork. He grew sales through increased customer footfall and loyalty by providing outstanding customer service, professional gardening advice, excellent stock quality and providing positive shopping experience.

Anthony generated year-on-year sales increases and annual savings by implementing stock management procedures and more efficient processes in reducing wasted resources to increase sales margins.

Key Information

Qualifications

Master's in Planning and Sustainable Development (MPlan),
University College Cork,
2020

B.A in Heritage Studies,
Galway-Mayo Institute of Technology,
2017

Diploma in Commercial and Amenity
Horticulture, Warrenstown
Horticultural College,
1999

Employment History

2021 – Present

Fehily Timoney & Company, Cork
Graduate Planner – Energy and
Planning Team

2020 – 2021

The Planning Partnership, Cork
Graduate Planning Consultant

2008 – 2020

Woodies D.I.Y., Cork
Horticulturalist

2019 – 2019

Cork City Council
Planning Clerical Officer

2006 – 2007

Queensland Federal Government,
Agricultural and Crop Inspector

2003 – 2006

Emerald Group Christmas Tree
Growers, Co. Wicklow,
Field Supervisor

1998 – 2003

New Place Nurseries, UK
Horticulturalist



Anthony Ryan

Project Planner



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- **Cork City Council, Cork, 2019**

Anthony was a Planning Clerical Officer working within the Department of Strategic Planning & Economic Development to finalise the city-wide Vacancy Survey for Cork City. He researched and updated all GIS data required information needed for accurate and detailed data regarding property vacancy and dereliction within Cork City. The survey's contributed to creating an understanding of levels of building vacancy and dereliction, allowing Cork City Council to develop and implement measures to reduce its prevalence and resolve the circumstances which lead to it emerging. Anthony also carried out surveys on visitor habits, patterns and demographics in Bishop Lucey Park and Kent Train Station. The survey's assisted in creating an understanding of the usage patterns and general requirements of both locations as part of proposed re-development and upgrade work to their functionality and the public realm.

- **Queensland Federal Government, Brisbane, Australia, 2006-2007**

Horticultural Inspector.

- **Emerald Group Christmas Tree Growers, Co. Wicklow, 2003-2006**

Field Supervisor.

- **New Place Nurseries, UK, 1998-2003**

Horticulturalist.

Previous FT Experience Essentials for this Project

Wind Energy Projects

Anthony contributed to various wind farm projects planning applications and assisted in the preparation and drafting of non-technical reports, finalising notices and forms, reviewing of planning drawings and collating of applications for submission. Anthony provided project management of a response to Further Information. Anthony worked on several projects where he directly contributed to client engagement and landholder interactions in relation to day-to-day client interface, ensuring that objectives were met and that projects were delivered to time, cost and quality targets. Anthony has carried out site visits and gained end-to-end knowledge of the planning application and commissioning process, including experience of client and landowner interaction in relation to site evaluation and constraints assessments (ArcGIS and Landdirect.ie), land management and Site Notice and planning compliance. Anthony has contributed to EIAR chapters to include Chapter 1, 'Introduction', Chapter 2 'Site Selection and Alternatives' and Chapter 4 'Policy and Public Consultation'.

- **On-Shore Wind Farms 2021-2022**

Anthony provided Planning Support for several Wind Farm developments nationwide which included the drafting of non-technical reports, finalising notices and forms, reviewing of planning drawings and collating of applications for submission. Anthony provided project management of a response to Further Information.

- **Ballinagree Wind Farm 2020-2022**

Provision of Planning Support including the drafting of statutory SID notices and forms. Review of planning drawings and collating of application for submission of this 22-turbine wind farm in Co. Cork.

- **Coom Green Energy Park 2021**

Collation and project management of a response to Further Information on this 20-turbine wind farm in North Cork.

- **Extension of Use Application**

Anthony provided planning support for an 'Extension of Use' Application for a Temporary Met Mast on the following project:

- o Coom Green (P21-141)

Anthony participated in drafting and submitting the following:

- **Environmental Impact Assessment Reports (EIAR)**

Anthony participated in drafting non-technical chapters for the EIAR into the effects a proposed project may have on the environment for the following projects:

- o Coumnaappul Wind Farm, Co. Waterford (P2360): Chapter 1, 'Introduction', Chapter 2 'Development Description' and Chapter 4 'Policy', Chapter 17 'Interactions of the Foregoing'.
- o Garryhinch Wind Farm, Co. Offaly (P21-180): Chapter 1, 'Introduction' and Chapter 4 'Policy'.
- o Littleton Wind Farm, Co. Tipperary (P20-211): Chapter 1, 'Introduction' and Chapter 4 'Policy and Public Consultation'.
- o Annagh Wind Farm, Co. Cork (P2359): Chapter 1, 'Introduction', Chapter 2 'Site Selection and Alternatives' and Chapter 4 'Policy'.
- o Ballinagree Wind Farm, Co. Cork (P2114): Chapter 1, 'Introduction', Chapter 17 'Interactions of the Foregoing'.



Anthony Ryan

Project Planner



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- o Fahy Beg, Co. Clare (P20-003): Chapter 1, 'Introduction', Chapter 2 'Site Selection and Alternatives' and Chapter 4 'Policy'.
- o Milltownpass (20-030): Chapter 1, 'Introduction', Chapter 2 'Development Description' and Chapter 4 'Policy'.
- o Shancloon, Co. Galway (P20-306): Chapter 1, 'Introduction', Chapter 2 'Development Description' and Chapter 4 'Policy'.
- o Cloonkett Wind Farm, Co. Clare (P22-125); Chapter 4 'Policy', Chapter 6: 'Population, Human Health' and Chapter 17: 'Telecommunications, Aviation and Material Assets'.
- **Substitute Consent Report / Applications**
Anthony participated in the preparation of Substitute Consent Planning Reports and documents to support the application to An Bord Pleanála under Section 177C of the Planning and Development Act 2000 (as amended):
 - o Littleton Wind Farm (P20-211): Planning Report for leave to apply for Substitute Consent for historic peat extraction activities (and all associated bog development works) that have been carried out on lands within Littleton Bog Group, Co. Tipperary.
 - o Garryhinch Wind Farm, Co. Offaly (P21-180): Report to support application for leave to apply for Substitute Consent under Section 177C of the Planning and Development Act, 2000 (as amended) to regularise the planning status of historic peat extraction (and ancillary bog development works) in the Garrymore Bog, County Laois and neighbouring Garryhinch Bog, County Offaly.
 - o Littleton Peat Extraction (P23-035): Report to support application for leave to apply for Substitute Consent under Section 177C of the Planning and Development Act, 2000 (as amended) to regularise the planning status of historic peat extraction (and ancillary bog development works) that have been carried out on Longford Pass, Littleton, Lanespark and Derryvella Bogs in Co. Tipperary.

Solar Energy Projects

Anthony contributed to various solar farm planning applications nationwide, including the Project Management of a portfolio of 4 solar farms in Co. Tipperary, which required the preparation of the Planning and Environmental report and finalising of statutory forms, documents and drawings. This portfolio successfully received a grant of planning permission in 2021.

Anthony assisted with and project managed the preparation and submission of planning applications for solar PV renewable energy developments. Each solar application was accompanied by reports such as a detailed environmental and planning report which assesses the impact of the solar development on a multitude of factors including Archaeology & Cultural Heritage, Ecology & Biodiversity, Glint and Glare, Landscape and Visual Impact, Noise, Hydrology and Traffic/Road assessments. Each solar application was accompanied by drawings and further reports providing specific development details as part of the planning application where Anthony contributed to reviewing drawings and reports such as Ecological Impact Assessment (EclA), Appropriate Assessment Screening Reports (AA), Natura Impact Statements (NIS), Construction Environmental Management Plans (CEMP), Flood Risk Assessments (FRA). In addition, all application material has to be reviewed and checked to ensure a valid application can be submitted and ensure a successful outcome.

Anthony participated in drafting and submitting of the following:

- **Solar Stage I Feasibility Study**
Anthony carried out to a Stage I Feasibility Study to analysis the feasibility of developing a solar PV farm for the following projects:
 - o Rahanisky Solar Farm, Cork County & City (P22-036)
 - o South Galway Solar Farm, Co. Galway (P21-243)
 - o Drummin (Castlebank), Co. Clare (P21-103)
 - o Corkbeg, Co. Cork (P21-230)
 - o Ballynookery, Co. Cork (P21-249)
 - o Rathleash, Co. Laois (P21-302)
 - o Clondardis, Co. Westmeath (P22-124)
- **Solar Stage II Feasibility Study**
Anthony carried out to a Stage II Feasibility Study to analysis the feasibility of developing a solar PV farm for the following projects:
 - o Kilmorna, Co. Kerry (P21-282)
 - o South Galway Solar Farm, Co. Galway (P21-243)
 - o Drummin, Co. Clare (Castlebank) (P21-187)
 - o South Galway, Co. Galway (P21-243)
 - o Kilmorna, Co. Kerry (P21-182)
 - o Shantallow, Co. Galway (P23-011)



Anthony Ryan

Project Planner



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A SUSTAINABLE FUTURE

- Milltown Extension, Co. Meath (P22-261)
- **Solar Farm Planning Applications**

Anthony participated in and project managed the preparation and lodgement of planning applications for the following Solar Farm developments:

 - Milltown, Co. Meath (P20-030)
 - Clashwilliam, Co. Kilkenny (P21-191)
 - Rathdrinagh, Co. Meath (P21-126)
 - Cahir Solar Farm 1, Co. Tipperary (P21-061)
 - Carrick SLR 2, Co. Tipperary (P21-061)
 - Deerpark 3, Co. Tipperary (P21-061)
 - Ballyvalode, Co. Limerick (P20-142)
 - Kilcormac Solar Farm, Co. Offaly (20-316)
 - Rahanisky, Cork County & City (P22-266)
 - Killough Solar Farm, Co. Tipperary (P24-169)
 - Cappakeel Solar Farm, Co. Laois (P23-226)
 - Ballylongford Solar Farm Amendment Application (P24-371)
- **A Section 177AE application**

Anthony completed the Planning and Environmental Report and associated documents on behalf of Cork City Council in support of a Section 177AE application to An Bord Pleanála for approval of repair and rehabilitation works at Glyntown Bridge.

 - Cork City Council - Glyntown Bridge (P21-200)
 - Cork County Council - Ardcahan Bridge (P1959)
- **Strategic Infrastructure Development (SID)**

Prepared documents for Strategic Infrastructure Development (SID) applications to An Bord Pleanála for electrical infrastructure projects associated with solar developments for the following projects:

 - Kilcormac, Co. Kerry (P20-316)



Ben O'Dwyer

Senior Project Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Ben O'Dwyer is a Project Ecologist working as part of the Energy and Environment Team at Fehily Timoney and Company. Ben has over eight years of ecological consultancy experience encompassing a wide range of projects and sub-disciplines. He holds a first class honours Bachelor of Science (BSc) in Wildlife Biology from Institute of Technology Tralee (now MTU). His degree focused on conservation of habitats, flora and fauna, with strong emphases on European and international legislation, and practical field skills encompassing terrestrial and aquatic ecology. Environmental science including laboratory and field sampling skills, in addition to legislation was also a key element throughout.

He has prepared Appropriate Assessment Screening Reports (AASR), Natura Impact Statements (NIS) and ecological impact assessments for a wide range of projects. Through this experience he has gained familiarity with the requirements of these processes and transferrable skills such as reviewing and critiquing Reports and Ecological Assessments. The areas his work has focused on include assessment of wind and solar energy projects, housing developments, gas networks, transport infrastructure, waste management, commercial/industrial projects, aquaculture and assessment of landslides. As such he is experienced in assessing the environmental and ecological effects of a diverse range of proposals in accordance with Habitats Directive, planning legislation and EclA Guidelines.

Ben is an experienced and versatile field surveyor, and as such is familiar with a wide range of survey methodologies, and is well-versed in the standards and level of information required to complete robust assessments. His experience across a broad range of projects in Ireland has given him an extensive knowledge of the protected sites and species across the country.

Key Skills

- Plant identification
- Habitat mapping
- Invasive species survey
- Ornithological surveying
- Mammal identification (field signs, live sightings & trail camera survey)
- Bat identification using bat detectors, behavioral characteristics & software-based analysis of recorded calls
- Bat roost survey
- Habitat assessments
- General and wide-ranging knowledge of ecological assessment, particularly focusing on protected species and habitats, encompassing terrestrial and aquatic ecology, ornithology, bats, mammals, rare/protected habitats and botanical species.
- Report writing and impact assessment (Ecological Impact Assessment, AA Screening & Stage 2 Natura Impact Statement)
- Wildlife license applications
- Ecological supervision, collaboration with other disciplines at both planning and construction stages.

Key Information

Qualifications

BSc. Wildlife Biology (1st Class Hons.),
ITT, 2016

Employment History

2016- Present

Fehily Timoney & Company
Ecologist

2015

Malachy Walsh & Partners, Tralee
Work Placement



Ben O'Dwyer
Senior Project Ecologist

Project Experience

Wind Energy Projects

- Knockastanna operational wind farm Co. Limerick – ecological monitoring plan, ornithological and collision monitoring survey management.
- Confidential wind farm Co. Offaly – ornithological survey management, reviewer/contributor to ornithological baseline reports, CRM review, audio surveys for nocturnal whooper swan activity (audio survey design, device deployment, call analysis and assessment).
- Confidential wind farm Co. Kildare – mammal surveys, bat roost surveys (GLTA/PRA), marsh fritillary survey, common lizard survey, habitat survey, Biodiversity Chapter for EIAR, NIS, bat report/assessment.
- Confidential wind farm Co. Laois – habitat survey and baseline report.
- Confidential wind farm Co. Tipperary – Annex I habitat survey; habitat survey of borrow pit lands; marsh fritillary surveys.
- Confidential wind farm Co. Laois – habitat survey, Annex I habitat survey, marsh fritillary survey, bat roost surveys.
- Confidential wind farm Co. Kildare – habitat survey, marsh fritillary survey.
- Fahy Beg wind farm Co. Clare – Biodiversity Chapter for EIAR, NIS, biodiversity enhancement plan, first-party appeal, habitat survey, mammal survey, ecological walkover, marsh fritillary survey, grid connection and TDR survey.
- Curragh Mountain Wind Farm – Vegetation monitoring, assessment and reporting (ecological monitoring of operational wind farm).
- Annagh wind farm Co. Cork – Biodiversity Chapter for EIAR, VP surveys, breeding bird and wader surveys, habitat survey, mammal survey, static bat detector survey, ecological walkover, grid connection and TDR survey.
- Croaghaun wind farm Co. Carlow – NIS, FI Response.
- Bilboa wind farm Co. Carlow (rotor modification) – Biodiversity Chapter for EIAR; detailed Biodiversity & AA RFI responses.
- Coom wind farm, Co. Cork – Turbine delivery route nodes survey, passive bat detector survey, replant lands survey, AA screening reports for TDR route & replant lands. Ecological survey scoping and management for grid connection planning application.
- Fossy/Curraglass wind farm Co. Laois – Summer & winter VP surveys; bird survey data collation; bat surveys (activity, emergence & passive detector surveys); habitat survey; mammal survey.
- Dernacart Windfarm Co. Laois – Biodiversity Chapter for EIAR.
- Drehid wind farm Co. Kildare – Summer & Winter VP surveys; Dawn/Dusk Winter VP Survey; bat activity survey.
- Barranafaddock Windfarm – AA screening report updates, post-construction collision monitoring survey, scavenger trial, annual monitoring report.
- Moanvane Windfarm – Preconstruction ecology surveys, construction-stage badger mitigation measures, bat Survey; bird survey data collation; habitat surveys; Mammal Survey; Replant Lands Habitat Survey. Post construction monitoring encompassing water quality sampling, re-vegetation checks, conclusion of badger mitigation hedgerow replanting and bat box installation specifications. Ornithological and collision monitoring survey management.
- Meenwaun Windfarm - Pre-Construction Badger, Otter & Bat Surveys; Badger Sett Hard-blocking & Monitoring.
- Moanincha Windfarm – Post-Construction Collision Monitoring Survey; Bat Survey; Post-Construction VP Surveys.
- Confidential Windfarm Co. Cork – Habitat surveys including Annex I survey, marsh fritillary survey, summer & winter VP surveys; breeding bird surveys; breeding moorland bird surveys; merlin survey; hinterland survey.
- Confidential Windfarm Co. Cork (2) – Summer & winter VP surveys; breeding bird surveys; hinterland survey; contributor to EIAR ornithological impact assessment.
- Gortyrhilly/Inchamore Windfarm Co. Cork – VP surveys, hinterland surveys, breeding bird and wader transects.
- Raragh Windfarm – Habitat Survey and Bat Survey (Cable Route).
- Galway Wind Park – Doon Bypass Habitat Survey.
- Dromada Windfarm – Baseline Vegetation Survey for Hen Harrier Breeding Habitat Management Programme.
- Knockacummer Windfarm Grid Connection Cable Route - Ecological Clerk of Works; Water quality monitoring; Invasive Species Survey; Otter Survey; Hen Harrier winter roost surveys.
- Derragh Windfarm- preconstruction ornithological and mammal surveys, preconstruction survey report.
- Garryhinch Wind farm – Hen harrier roost watches.



Ben O'Dwyer
Senior Project Ecologist

Solar Energy Projects

- Keiloge Solar Farm - AA Screening Report
- Glenamoy House Solar Farm - Habitat Survey and Desktop Study for AA Screening
- Ballyhale Solar Farm –Bat Survey
- Barrowsiders Solar Farm Carrigtwohill –Habitat Survey and AA Screening Report
- Casteltownbere Solar Farm – Habitat Survey and Ecological Feasibility Assessment
- Piercetown Solar Farm – AA Screening Report
- Meelshane Solar Farm – Habitat Survey, Site Walkover, Ecological Appraisal & Ecological Enhancement Plan.
- Furryhill Solar Farm – Habitat Survey, Site Walkover, AA Screening Report, Ecological Appraisal & Ecological Enhancement Plan.
- Cable Route Section 5 Application – AA screening Report
- Clondardis Solar Farm – AA Screening Report
- Ballyduff Solar Farm – Habitat Survey, Site Walkover, Cable Route Survey
- Johnstown North Solar Farm – Habitat Survey, Site Walkover, Cable Route Survey, AA Screening Report, Ecological Appraisal & Ecological Enhancement Plan
- Rosspile Solar Farm – Habitat Survey, Site Walkover, Cable Route Survey, Bat Survey, Mammal Survey, NIS & Ecological Appraisal.
- Middleton House Solar Farm - Habitat Survey, Site Walkover, Cable Route Survey, Mammal Survey, Ecological Appraisal
- Middleton House Solar Farm (additional lands)- Habitat Survey, Site Walkover, Cable Route Survey, Mammal Survey, Ecological Appraisal. Report for AA Screening

Miscellaneous Projects

- DECC Provision of a detailed scientific assessment of peatland landslides – completed Annex I type relevé surveys at 3 No. peat landslide sites to provide detailed botanical data for use in a wider assessment primarily focused on hydrogeology and peat stability.
- Dunkettle Interchange Upgrade– preconstruction mammal & botanical surveys, reporting, otter & badger surveys and mitigation measures, invasive species surveys rare plant and moth foodplant translocations, bat surveys, ornithological surveys, amphibian surveys, ecological supervision and associated reporting.
- N4 Sligo – preconstruction mammal, bat & amphibian surveys, ecological supervision, wildlife licence applications (frog, bat, badger, smooth newt), ecological design.
- Cork County Bridge Rehabilitation, South & West Regions- AA Screening Reports.
- Ardcahan Bridge Repair Co. Cork – NIS, bat emergence survey, onsite stakeholder consultation.
- Glanmire Bridge Repair Cork – bat emergence survey.
- Rathcooney Bridge Repair Cork – NIS.
- Blackpool Bridge Repair (Cork City) – AA screening report, Annex IV otter assessment.
- Tipperary Town Historic Landfill Remediation - Habitat & General Ecology Surveys, Invasive Species Survey, Appropriate Assessment Screening, Invasive Species Management Plan.
- Knockharley Landfill – Bat Survey & Desktop Study for EIS, Botanical & Habitat surveys and FI response Botanical & Habitat report
- Monart Spa – Q sampling (Aquatic Macroinvertebrate Identification & Analysis), biological water quality report
- Ballyogan Landfill – Aquatic Macroinvertebrate Identification & Analysis (Q values, SSRS)
- Dunsink Landfill – Aquatic Macroinvertebrate Identification & Analysis (Q values, SSRS)
- North Kerry Line – Habitat & General Ecology Surveys
- Burlington Facility - Habitat & General Ecology Surveys, AA Screening Report
- Center Parcs Gas Pipeline Route - Habitat & General Ecology Surveys
- Enniscorthy Residential Development - Habitat & General Ecology Surveys, with focus on hydrological connections for AA
- Kilbarry Residential & Solar Development EIAR - Habitat & General Ecology Surveys, Ecological Appraisal.
- Waterford Airport Runway Extension - Habitat & General Ecology Surveys
- Monaghan Historic Landfills- AA Screenings for Tier 3 Assessments
- Great Southern Trail Greenway - General Ecology Survey (Barnagh Tunnel Section)
- IDA National Technology Park, Limerick – habitat survey; general ecology walkover survey; badger see and otter holt (trail camera) monitoring; NIS for flood defence berm; ecological appraisal; badger mitigation report; Annex IV otter assessment & derogation application; invasive species management plan.
- Ballaghveny Landfill- Baseline Biodiversity Survey & Report



Ben O'Dwyer
Senior Project Ecologist



CONSULTANTS IN ENGINEERING,
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-
- Cúl Na Móna Gas to Grid Plant – Vantage point surveys, Breeding Bird Surveys.
 - Corduff FlexGen Gas Pipeline & AGI – AA Screening for Section 5 Application
 - Rogerstown Park (former Baleally Landfill) – AA Screening for maintenance shed
 - Thorpes & Oldcourt Historical Landfill Monitoring - AA Screening
 - Stewarts Hospital Front Terrace Restoration – Mammal Survey, Bat Roost Survey
 - Dungarvan oyster processing plant – AA screening report for extension of plant



Maureen Marsden

Senior Project Engineer



DESIGNING AND DELIVERING
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Profile

Maureen holds Master of Engineering degree in Acoustics and Vibration from Southampton University (Institute of Sound and Vibration Research).

She has 28 years postgraduate experience and is currently a Senior Project Engineer with Fehily Timoney.

Maureen specializes in environmental noise including industrial, energy infrastructure projects and transportation projects.

Maureen has a broad range of experience in noise and vibration across a variety of sectors including building, transport, industrial and energy sector projects.

She is currently a member of the Institute of Acoustics and Engineers Ireland.

Key Skills

Maureen has experience in the building/industrial/energy/gas projects including:

- Noise measurement
- Operational noise predictions
- Construction noise predictions
- Noise and vibration assessments

Previous Experience Essentials for this Project

• Wind Farm Projects

Involved in all stages of windfarm projects, from pre-planning to post construction compliance monitoring:

- o Conducted baseline noise measurements within Ireland to determine prevailing background noise in the vicinity of proposed windfarms. Analysed noise based on the Institute of Acoustics Good Practice Guide to the Application of ESTU-R-97 and the Institute of Acoustics Good Practice Guidelines. Determined noise limits in line with the Wind Energy Development Guidelines 2006 to define site noise criteria.
- o Predicted operational noise from proposed windfarms using 3-D noise modelling software to determine compliance with noise criteria, based on methodology in ISO9613 Attenuation of sound during propagation outdoors. Where noise limits were exceeded, determined curtailment strategy based on quieter turbine operational modes.
- o Assessed noise from temporary works associated with windfarm construction using BS5228 Code of Practice for noise and vibration control on construction sites. Predicted construction noise and advised on mitigation works as required. This assessment also includes consideration of construction noise from proposed grid connection works.
- o Produced Environmental Impact Assessment Reports for Windfarm developments, based on the operational and construction noise assessment as detailed above.
- o Conducted post construction compliance noise survey and analysed data for comparison with noise limits to determine compliance with the planning criteria.

Key Information

Qualifications

Master of Engineering in Acoustics and Vibration, Southampton University, 1994

Professional Memberships

Member of the Institute of Acoustics
Member of Engineers Ireland

Employment History

2019 – Present

Fehily Timoney & Company
Senior Project Engineer

2017 – 2018

Resonate Acoustics
Senior Acoustic Consultant

2015 – 2017

Soundsorba
Sales Engineer

2011 – 2015

Kellogg Brown and Root
Senior Technical Professional
(Noise and Vibration)

2011 – 2011

Mott Mac Donald
Senior Acoustic Consultant

2011 – 2011

Mott Mac Donald
Senior Acoustic Consultant

2008 – 2010

Applied Acoustic Design
Senior Acoustic Consultant

2007 – 2008

Hoare Lea Acoustics
Senior Acoustic Consultant

2002 – 2006

Sound Research Laboratories
Acoustic Consultant

1998 – 2001

Arup Acoustics
Acoustic Engineer



Maureen Marsden

Senior Project Engineer



DESIGNING AND DELIVERING
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- Conducted baseline noise surveys for windfarms where lifetime extension or windfarm repowering is required. Assessed operational windfarm noise in line with current guidance since the original windfarm application. Assessed noise and vibration impacts from proposed repowering as part of the planning process.
Sample projects include: Annagh Windfarm, Ballagh Windfarm, Ballinagree Windfarm, Barnadivine Windfarm, Carrane Hill Windfarm, Coom Green Energy Park, Coumnagappul Windfarm, Croaghaun Windfarm, Dernacart Windfarm, Drehid Windfarm, Fahy Beg Windfarm, Gneevs Windfarm, Letteragh Windfarm, Moanvane Windfarm, Tullahennel Windfarm,
- **Solar Farm Projects**
Derived noise criteria for solar farms based on EPA criteria. Predicted operational noise from proposed solar farm equipment (inverters and transformers) to determine compliance with the noise criteria. Advised on noise control measures where required including equipment relocation relative to noise sensitive locations, selection of quieter equipment and mitigation of equipment where required. Predicted construction noise from the temporary works associated with the solar farm construction and recommended mitigation as required.
Sample projects include: Ballyvalode Solar Farm, Clashwilliam Solar, Dunmurray Golf Course Solar Farm, Milltown Solar Farm, Moortown Solar farm, Kilcurly Solar Farm, Killough Solar Farm, Kilmorna Solar Farm, Rahanisky Solar Farm, Rathdrinagh Solar Farm.
- **Rotating Stabiliser Projects**
Conducted baseline noise survey, to allow noise criteria to be determined in line with EPA noise guidance. Predicted noise from the proposed rotating stabiliser to determine compliance with criteria. Measured transformer noise from a nearby substation to determine existing noise sources.
Sample projects Knockraha Rotating Stabiliser, Co. Cork, and Maynooth Rotating Stabiliser, Co. Kildare.
- **Compliance Monitoring at EPA Licenced Facilities**
Monitored noise at EPA licensed facilities to determine if emission limits within license conditions are met. This included food and drink production facilities, civic amenity sites, waste processing facilities and engineering facilities.
Advised on contribution from off site sources to determine if noise limits are exceeded. Assessed noise in line with EPA NG4 guidelines and BS4142 Methods for rating and assessing industrial and commercial sound.
- **Gas Projects 2014-2023**
Conducted baseline noise surveys for proposed compressed natural gas (CNG) installations following noise attenuation works. Predicted and assessed operational noise for inclusion within planning submission, where required.
Conducted a series of internal and external measurements at eleven Above Ground Installations (AGI's) in Ireland. Internal measurements were used to assess noise levels against occupational noise criteria for workers. External measurements were used to assess noise levels against external environmental noise criteria.
Conducted a baseline noise survey at Whitegate AGI (Above ground installation), prior to construction works.
Sample projects for proposed CNG installations include Carhoo, Birdhill service station, M7 Junction 14 Mayfield, Cappagh Rd, Virginia, City North. Sample projects for AGI installations include: Scholarstown AGI, Swords Road AGI, Kilshane AGI, Ballynaneashagh AGI, Cork Gas AGI, Abbotstown AGI, Ardree AGI, Ballyduff AGI.
- **Industrial Noise Assessments, 2011 - 2019**
Predicted noise from a range of industrial facilities using 3-D noise modelling software for a range of industrial developments. including LNG(liquid natural gas) facilities, dairy facilities and water works schemes to advise on noise control measures to meet appropriate environmental legislation. Also predicted in-plant noise contours for purposes of identifying hazardous zones related to Noise at Work requirements.
Sample projects include Thames Water projects, Irish Water projects, Co. Kilkenny, Ballyragget Glanbia site, Co. Kilkenny, Jazan Refinery, Saudi Arabia, Bioatlantis, Co. Kerry.
- **Port Noise Assessments 2017-2023**
Monitored noise at noise sensitive locations over several weeks overlooking the Ringaskiddy Deepwater port, Co. Cork. Noise was monitored over a period of weeks during the arrival and unloading activities of a particular ship which had led to noise complaints. The measured levels were compared the noise limits with NG4 criteria. Also BS4142 was used to assess the likelihood of adverse impact at nearby properties.
Measured noise at Dublin Port for the purpose of assessing if security personnel had the potential to exceed noise at work limits. The assessment was based on a combination of attended measurements in addition to use of noise dosimeters worn by key personnel. This was used to advise on the effect of the type of work undertaken by staff in order to meet noise at work limits.



John Cullen

Senior Project Acoustic & Environmental Engineer



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Profile

John is a Senior Project Acoustic Engineer / Environmental Engineer with Fehily Timoney & Company. He holds an honours degree in Agri-Environmental Science from University College Dublin, a Postgraduate Diploma in Environmental Engineering from Trinity College Dublin and a Diploma in Acoustics and Noise Control from the Institute of Acoustics, receiving the award for “Best Performing Irish Student” from the Institute of Acoustics. He is a member of the Institute of Acoustics, Institute of Environmental Sciences and the Institute of Engineers Ireland.

John has experience in the delivery of Environmental Impact Assessment Reports for a wide range of developments, including proposed Wind Farms, Solar Farms and Battery Energy Storage Systems (BESS), Waste Facilities, Anaerobic Digestion Plants and proposed residential and industrial developments.

John has over eight years' experience in the assessment of environmental noise and vibration, and has completed computational noise models and noise impact assessments for a range of developments, including residential, industrial and renewable projects. He has undertaken baseline noise surveys for wind farms, developed computational noise models, assessed construction and operational noise impacts for wind farm and renewable energy projects and provided input to Requests for Further Information (RFIs) and the legal response for Judicial Reviews.

He has carried occupational noise and hand-arm/whole body vibration risk assessments in accordance with the requirements of the Irish & UK workplace noise & vibration regulations. He has also acted as Lead Acoustic Consultant carrying out building acoustics assessments for a range of commercial and residential developments in Ireland, the UK and Europe.

John has carried out in-situ acoustic measurements of road noise barriers on behalf of Transport Infrastructure Ireland (TII), to determine acoustic performance of barriers throughout Ireland, including sound reflection (EN 1793-5) and airborne sound insulation (EN 1793-6). He is the Co-Author of research paper titled “Monitoring of Acoustic Performance of Noise Barriers along Roads in Ireland”, presented at Transport Research Arena (TRA) 2024.

Previous Experience Essentials For This Project

• Fehily Timoney and Company, 2022 – Ongoing

John is a Senior Project Acoustic Engineer / Environmental Engineer working as part of the Circular Economy and Environment team, delivering Environmental Impact Assessment Reports (EIARs), environmental management plans and licence applications/ compliance.

John has experience in the delivery of Environmental Impact Assessment Reports for a wide range of developments, completing noise surveys, computational noise models, noise impact assessments and noise mitigation schemes for proposed developments, participating in stakeholder engagement and public consultation, liaising with landowners to agree environmental monitoring programmes for proposed renewable energy projects, managing a team of subcontractors and coordinating the completion of ecological field surveys and assessments and participating in public consultation events with stakeholders.

Key Information

Qualifications

Diploma in Acoustics and Noise Control, Institute of Acoustics via Trinity College Dublin
2019 – 2020

Post Graduate Diploma in Environmental Engineering (NFQ Level 9) (P.Grad.Dip), Trinity College Dublin
2014 – 2015

Agri-Environmental Science (NFQ Level 8) (BAgrSc)
University College Dublin
2009 – 2013

Professional Memberships

Institute of Engineers Ireland (MIEI)

Institute of Acoustics (AMIOA)

Institute of Environmental Sciences (MIEnvSc)

Institute of Air Quality Management (MIAQM)

Employment History

2022- Present

Fehily Timoney & Company
Senior Project Acoustic Engineer / Environmental Engineer

2021- 2022

Self-employed Environmental & Acoustic Consultant

2016- 2021

Environmental Efficiency Consultants
Environmental & Acoustic Consultant

2015 - 2016

Philip Farrelly & Co.
Agri-Environmental Consultant

2014 - 2015

Verde Environmental Group
Environmental Operative



John Cullen

Senior Project Acoustic &
Environmental Engineer



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Recent projects include: Noise impact assessment for Ballynahone Long Duration Energy Storage (LDES) scheme in Co. Donegal, noise impact assessment and IE Licence application for a 250,000 TPA waste facility in Co. Dublin, noise impact assessment for Derrynadarragh Wind Farm, noise impact assessment for Rosspile Solar Farm & BESS Co. Wexford, noise impact assessment for the N19 Shannon Airport Access Road Improvement Scheme and undertaking in-situ acoustic measurements of road noise barriers throughout Ireland on behalf of TII. John has provided technical environmental support to Local Authorities, carrying out technical reviews and providing advice on environmental documents submitted as part of planning applications.

John has undertaken baseline noise surveys and carried out construction & operational noise assessments for proposed Solar Farms and Wind Farms throughout Ireland, including: Kilcormac Solar Farm, Rahanisky Solar Farm, Ballylongford Solar Farm Cortown Solar Farm, Barnadivane Wind Farm, Coom Green Park, Tullahennel Wind Farm, Dernacart Wind Farm and Coumnaappul Wind Farm.

- **Self Employed – Environmental & Acoustic Consultant, April 2021 – 2022**

Carrying out subcontract acoustic & environmental consultancy services including environmental noise monitoring & assessments, noise impact assessments, occupational noise & vibration assessments, sound insulation testing and building acoustics assessments. Environmental consultancy services including air quality assessments, bund integrity assessments, and verification audits for the Bord Bia 'Origin Green' sustainability programme. Agri-Environmental advisory services including BPS & Entitlements applications, REAP environmental scheme farm assessments, soil sampling and Nutrient Management Planning

- **Environmental Efficiency Consultants, Bray, January 2016 – April 2021**

John was an Environmental & Acoustic Consultant providing environmental consultancy services to clients across a wide range of sectors, including industrial, pharmaceutical, construction/quarrying and agri-food/drink. Working as part of a multi-disciplinary team delivering environmental reports, management plans, impact assessments, licence/permit applications and environmental compliance consultancy. Working across various areas of environmental consultancy, specialising in noise & acoustics.

His role involved developing project proposals & quotations, project management, research, carrying out and coordinating environmental monitoring & field surveys (Air quality, biodiversity, bunds, noise, vibration & water), liaising with sub-contractors and regulatory bodies, interpreting monitoring results & data, and technical report writing.

John acted as Project Manager for the delivery of the environmental monitoring schedule for a leading quarry operator at numerous sites throughout Ireland, including noise, dust, air emissions and water quality. Duties included coordinating regular sitework & field monitoring, managing junior staff, interpreting monitoring results & data, reporting, liaising with the client and Local Authorities. John acted as Lead Auditor for the Bord Bia 'Origin Green' sustainability programme. John undertook noise and air emissions monitoring for the validation of newly installed gas engines used for power generation at multiple sites throughout the UK and carried out an Indoor Air Quality Assessment at a refurbished brewery in Kisumu, Kenya for a multinational brewing organization, to assess performance with regards to the requirements of the LEED building performance standard.

- **Philip Farrelly & Co., Balbriggan, March 2015 – January 2016**

John was an Agri-Environmental Consultant providing technical agri-environmental advisory services to clients. He was also responsible for soil sampling & analysis, nitrates & nutrient management planning, ecological field surveys, and agri-environmental scheme consultancy.

- **Verde Environmental Group, Kilcoole, January 2014 – March 2015**

John was an Environmental Operative responsible for contaminated site investigation, drilling works, environmental monitoring (soil, water & air), site remediation and groundworks, and installing/maintaining on-site remediation systems.



Aoife Hurd

Senior Project Engineer



Profile

Aoife is a Senior Project Engineer in the Energy and Planning Department at Fehily Timoney and Company. She holds a Bachelors and Masters Degree in Civil, Structural, and Environmental Engineering from Trinity College Dublin. Aoife has 3 years of postgraduate experience working on residential, infrastructure, and renewable energy projects at all stages from concept to construction.

Aoife currently works on renewable energy projects preparing chapters of the EIAR for wind farms, solar farms and grid infrastructure developments, specifically the Traffic and Transport chapter and Air Quality and Climate chapter. She also has experience in designing renewable energy developments and carries out site inspection surveys to identify on-site constraints and solutions.

Key Skills

Aoife has experience in the following:

- EIAR, EIA
- Renewable Energy Development Design
- Coordination of Feasibility Studies
- Site Assessment
- Infrastructure and Utility Design
- Transport & Policy Analysis
- GIS & Data Reporting

Previous Experience Essentials for this Project

- **Large Scale Wind Farm Project, Co. Clare, Ongoing.**
The proposed development is a 14-no. turbine wind farm located in Co. Clare. Aoife was responsible for the preparation of the Construction and Environmental Management Plan (CEMP) and Air Quality and Climate chapter of the EIAR. She also assisted in the design and coordination of key engineering elements of the proposed development, including drainage infrastructure, electrical cabling, attenuation ponds, and peat deposition areas.
- **Large Scale Wind Farm Project, Co. Offaly, Ongoing.**
The proposed development comprises of 9-no. turbines, spanning across 208 hectares of land in the jurisdiction of Co. Kildare and Co. Offaly. Aoife was responsible for the preparation of the CEMP, Traffic and Transport chapter, and Surface Water Management Plan (SWMP) of the EIAR. She also designed the site drainage ensuring all designs were in line with relevant standards.
- **Drummalough, Lettermore and Srananagh Long Duration Energy Storage, Ongoing.**
Feasibility studies were carried out for two potential long duration energy storage sites at Drummalough and Lettermore in Co. Donegal. Aoife assessed the existing utility infrastructure by reviewing and mapping Uisce Éireann and utility records in ArcGIS to evaluate potential connection options and identify constraints.

Key Information

Qualifications

- Masters (MAI), Civil, Structural, & Environmental Engineering
Trinity College Dublin – First Class Hons (Distinction), 2022
- Bachelors (BAI) Civil, Structural, & Environmental Engineering
Trinity College Dublin – First Class Hons, 2017 - 2021

Professional Memberships

- Member of the Institution of Engineers of Ireland (MIEI)
- Overview of Safety, Health & Welfare at Work (Construction) Regulations
2013, April 2024
- SOLAS Safe Pass, December 2023

Employment History

March 2025 – Present

Fehily Timoney & Company
Senior Project Engineer

2023 – 2025

AECOM
Civil Engineer

2022 – 2023

AECOM
Transport Planner

2021

RPS
Engineering Intern



Aoife Hurd

Senior Project Engineer



- **Donore Project, Dublin 8, 2025.**

The proposed development, comprising 542 homes as well as a new creche, community spaces and landscaped public areas, is located on the former St. Teresa's Gardens site, in Dublin 8. Aoife was involved with this project throughout the planning, tender and construction stages and was responsible for infrastructure and drainage design, liaison with Uisce Éireann to manage connection and diversion applications and coordination with the client, contractor and multidisciplinary teams to effectively meet project deadlines. Aoife conducted bi-weekly site visits to inspect the progress of civil works on site.

- **School Street / Thomas Court Bawn Estate Renewal, Dublin 8, 2025.**

The proposed development involves the retrofit and development of 114 new residential units in place of the current 79 no. unit residential site as well as a multi-use childcare facility and all associated site infrastructure and landscaping. Aoife was responsible for preparing technical reports, including the Stage 2 Infrastructure Report and Flood Risk Assessment Report. She assisted with the planning application and carried out the design of Sustainable Urban Drainage Systems (SuDS), including detailed calculations for green and blue roofs and drainage modelling using Innovyze InfoDrainage. Aoife attended design team meetings and coordinated with Uisce Éireann and other multidisciplinary teams.

- **Maynooth Area Based Transportation Assessment (ABTA), 2023.**

The scope of work involved analysing current and future transportation demands, assessing infrastructure capacity, and considering the effects of planned developments or changes. Aoife was responsible for developing a walking / permeability strategy for Maynooth ABTA. She used VISUM and ArcMap, specifically the ArcMap Network Analyst tool, to accurately assess the walking distance to key destinations in Maynooth and quantified the benefits using GeoDirectory data.



Chandra Walter

Project Ecologist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Chandra holds a BSc in Ecology and an MSc in Organic Horticulture, both degrees were awarded with Honours by University College Cork.

Chandra is a dedicated ecologist, with excellent report writing and data management skill. She is skilled with QGIS and SPSS statistics. Chandra has good plant and insect identification skills, particularly for pollinators and freshwater macro-invertebrates.

Chandra is experienced in both terrestrial and freshwater ecology.

Key Skills

- Data Management in Excel
- Habitat surveys
- Bat activity surveys
- Freshwater Macro-invertebrate surveys
- Pollinator surveys, focused on Hymenoptera, Lepidoptera and Syrphidae
- Mapping in QGIS
- Statistics – SPSS
- Preliminary Ecological Appraisal
- Appropriate Assessment
- Ecological Impact Assessment

Previous Experience Essentials for this Project

- **Project Ecologist at Fehily Timoney and Company, 2021-Present.**
Chandra has been working on several wind and solar farm projects, as well as on numerous civil and commercial infrastructure projects. Her role involves surveying, data management, mapping and report writing.
 - **Garryhinch Wind Farm (Bord na Móna), Ongoing.**
Bat activity survey required for the Strategic Infrastructure Development application to An Bord Pleanála for a proposed wind farm comprising up to 12 turbines in counties Laois and Offaly.
 - **Dunkettle Interchange (TII), Ongoing.**
Breeding survey and report for Grey Heron and Little Egret as part of the ecological mitigation requirement for a large road project. This project involves a series of direct road links between the N8, the N25 and the N40 and links to the R623 Regional Road in Little Island and Burys Bridge in Dunkettle; 1 grade separated junction arrangement at the existing N25 to the east of the existing Dunkettle Interchange; 4 roundabouts – 2 at the grade separated junction and 2 at tie ins with the existing road network; 51 major structures of various forms; several culverts where the scheme crosses watercourse or intertidal area; pedestrian and cyclist facilities; and modification of existing Silversprings junction on the N8 Lower Glanmire Road.
 - **Cork Bridge Rehabilitation, Cork, Ireland / Cork County Council, 2022.**
Bat emergence survey at a Bridge near Dunmanway as part of ecological mitigation for the repair of approximately 50 road bridges located around the Cork region. Development of an Invasive species management plan for repair works to a bridge in Co. Cork.

Key Information

Qualifications

MSc Organic Horticulture,
University College Cork,
2017

BSc Ecology,
University College Cork,
2014

Employment History

2021 – Present

Fehily Timoney & Company
Project Ecologist – Energy & Planning
Team

2019 – 2021

German speaking technical support at
Telus International

2018 – 2019

Environmental Lab Technician and
Ecological Fresh Water Surveyor



Chandra Walter

Project Ecologist



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The list of structures included predominately masonry structures dating from the 13th to 19th centuries, including a number of protected structures.

- **Littleton Wind Farm, Bord na Móna, Ongoing.**
Management of bird data for a large wind project across bogland in Co. Tipperary. Bat activity surveys required for the planning application for a proposed wind farm comprising up to 12 turbines.
- **Fahybeg Wind Farm (RWE), Ongoing.**
Survey of oak woodland to find preferred suitable route for access road. Other surveys at this site included mammal surveys, invasive species surveys, habitat assessment and bat roost assessment along the proposed cable route.
- **Maynooth rotating stabilizers, Statkraft, 2021.**
Preparation of the Ecological impact section for an NIS for the proposed development of a synchronous compensator and ancillary equipment at Maynooth Co. Kildare. Challenges included a hydrological link that was identified to the Rye Water Valley/Carton SAC.
- **Brittas Road Historic Landfill rehabilitation, Tipperary County Council, Ongoing.**
Preparation of an NIS for the rehabilitation works of a historic landfill to the north of Thurles with a hydrological link to the Lower River Suir SAC. Application for an Annex IV derogation license for Otter.
- **Acorn Water, 2018 — 2019.**
Chandra was a freshwater macro-invertebrate surveyor, responsible for evaluating long term water quality around dairy plant discharge sites which are under license from the EPA. Chandra also had responsibilities as a lab technician, analysing private and industrial water samples for biological and chemical parameters, and involved in developing quality control procedures for lab procedures and water samples.



Eoin Downing

Graduate Engineer



Profile

Eoin holds a Master's degree in Sustainable Resource Management: Policy and Practice and a Bachelor's degree in Civil Engineering, in which he achieved First Class Honours in both degrees. He is currently a graduate engineer with Fehily Timoney in the Energy and Planning Sector. Eoin has a keen interest in all areas of engineering, sustainable development, and renewable energy. He has a strong work ethic and a passion for the environment. He has a broad range of skills including problem solving, communication, teamwork and leadership skills, and experience working both in design and on site in the construction industry.

Key Skills

Eoin's key skills include:

- AutoCad
- ArcGIS
- Project Management
- Report Writing
- Data Analysis
- Presentations
- Data Analysis

Previous Experience Essentials for this Project

- **Derryfadda Wind Farm, 2024**
Eoin conducted a site access survey to determine suitable entrances to the site that conform to TII requirements for direct access. Eoin was also involved in the Site Access Assessment, the Traffic and Transport Chapter and the Construction Environmental Management Plan within the Planning and Environmental Report.
- **Killough Solar Farm, 2024**
Eoin conducted a site access survey to determine suitable entrances to the site that conform to TII requirements for direct access. Eoin was also involved in the Site Access Assessment, the Traffic and Transport Chapter and the Construction Environmental Management Plan within the Planning and Environmental Report.
- **Coolnagun Wind Farm, 2024**
Eoin identified potential grid route options using ArcGIS from the wind farms to nearby substations.
- **Cloonkett Wind Farm, 2024**
Eoin completed a hydrological walkover of the site recording waterways. Eoin also was involved in a geotechnical walkover of ground conditions on site partaking in peat probing and shear vane testing of the soil to determine its depth and strength.
- **South Mayo Wind Farm, 2024**
Eoin was involved in the Site Access Assessment, the Traffic and Transport Chapter and the Construction Environmental Management Plan within the Planning and Environmental Report.
- **Drehid Wind Farm, 2024**
Eoin was involved in the drainage design of the wind farm using AutoCAD.

Key Information

Qualifications

MSc Sustainable Resources Management: Policy and Practice.
University of Limerick and University of Galway, 2024

BEng Civil Engineering, University of Limerick, 2023

Professional Memberships

Engineers Ireland

Employment History

2024 – Present

Fehily Timoney & Company
Graduate Engineer

2022

Ward and Burke
Site Engineer

2022

Roadbridge Construction
Design Engineer



Eoin Downing

Graduate Engineer



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- **Bachelor's Dissertation, 2023**

An Evaluation of the Feasibility of Micro-consolidation Hubs in Limerick City: In this project Eoin focused on the role that can be played by micro-consolidation hubs and the use of electric cargo bikes for last mile parcel distribution in reducing freight traffic in Limerick City. This included a detailed analysis of the environmental impacts of such a system on the area. He analysed the competitiveness of urban deliveries with micro-consolidation hubs and e-bikes and compared this with diesel vans from a suburban depot. He found that micro-consolidation hubs and electric bikes not only reduce emissions in comparison to suburban depot-van operations but are also a more cost-effective option. He therefore proved over the course of his project that micro-consolidation hubs are a feasible solution to last mile deliveries in Limerick City. He used several techniques and software in my projects, including ArcGIS Pro to determine the micro-consolidation hub locations and Microsoft Excel to determine the emissions and the costs. Eoin presented his findings in a report and a poster presentation to the civil engineering department.

- **Master's Dissertation, 2024**

An Evaluation of the Environmental, Energy and Social Impacts of Onshore and Offshore Wind Farms: In this project Eoin evaluated the carbon emissions and the energy production, as well as the shadow flicker, the noise and the visual impact of an onshore and an offshore wind farm. The wind farms that I evaluated and compared include Oriel offshore wind farm off the coast of Co. Louth, Ireland, and Zeewolde onshore wind farm in The Netherlands. I determined that the offshore wind farm produces more carbon emissions than its onshore counterpart. However, the offshore wind farm also produces more energy and has lesser social impacts when compared to the onshore wind farm. I used several techniques and softwares in this project including Google Earth Pro to determine the social impacts and Microsoft Excel to determine the energy production and the carbon production.



Aaron T. Clarke

Chartered Principal Geologist



DESIGNING AND DELIVERING
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Profile

Aaron is a Chartered Principal Geologist and a Member of the European Federation of Geologists, with over 21 years of experience providing specialist geoscientific input to multidisciplinary projects across Ireland and the UK. With more than a decade dedicated to ground engineering, he has developed particular expertise in supporting renewable energy developments alongside peat stability assessments and peatland restoration.

Aaron has been instrumental in the delivery of several high-profile infrastructure and environmental projects, including Cloonkett Wind Farm in Co. Clare and the Derryclare Peatland Restoration Project in Co. Galway. He has led numerous peat stability risk assessments, ground condition evaluations, and contributed to the preparation of robust Environmental Impact Assessment Reports (EIARs), particularly for upland and peat-sensitive sites.

His technical background is complemented by strong project and team management capabilities, gained through experience on both the consultancy and contractor sides. He has worked within the ground investigation sector and has supervised major earthworks operations as Designer's Site Representative on national road schemes, such as the Dunkettle Interchange, M7 upgrade and M11 extension.

Key Skills

- Project Management
- Rock Mass Assessment
- Peat and slope stability assessments
- Geotechnical assessment
- Geological and geomorphological mapping Earthwork supervision
- Ground Model and Conceptual Site Model development
- Desk studies & site surveys
- Scoping & management of ground investigations
- Environmental Impact Assessment Reports

Publications

- Clarke A, Parkes M, Gatley S, (2007) The Geological Heritage of Fingal, Geological Survey of Ireland Publications
- Clarke A, Parkes M, Gatley S, (2007) The Geological Heritage of Meath, Geological Survey of Ireland Publications
- Clarke A, Parkes M, Gatley S, (2007) The Geological Heritage of Kilkenny, Geological Survey of Ireland Publications
- Parkes M, Clarke A, (2005) The Geological Heritage of Kildare, Geological Survey of Ireland Publications

Key Information

Qualifications

MSc. Applied Geotechnics
Camborne School of Mines, UK (2012)

BSc. (Hons) Earth Sciences,
NUI Galway (2004)

Professional Memberships

PGeo – Institute of Geologists of
Ireland

EurGeol – European Federation
of Geologists

Employment History

2022 – Present

Fehily Timoney & Company
Principal Geologist

Jan 2018 – Jan 2022

AECOM Ireland
Senior Engineering Geologist

2016 - 2018

ARUP Ireland
Assistant to the Designers' Site
Representative

2015 – 2016

Geo Consulting Engineering Ltd.
Senior Engineering Geologist

2012 – 2015

EM Highway Services Ltd.
Engineering Geologist

2008 – 2011

Teck Resources
Lead Geologist

2007 – 2008

GHD Group Pty Ltd
Site Engineer

2004 – 2007

Geological Survey Ireland
Consultant Geologist



Aaron T. Clarke

Chartered Principal Geologist



DESIGNING AND DELIVERING
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Previous Experience

- **Cloonkett Wind Farm, Co. Clare, Value: €500K, Ongoing.**
Project Manager/Geotechnical Lead. Fehily Timoney and Company (FT) were engaged by Greensource to undertake an EIAR for the proposed Windfarm at Cloonkett, Co. Clare. As Project Manager, Aaron is responsible for the delivery of all site surveys and assessments, and final EIAR chapters. He is also responsible for the management of FT's multidisciplinary teams throughout the life cycle of this project. As Geotechnical Lead, Aaron undertook a desk study and site walkover to identify salient features to include relict failures, rock exposures, wet ground, general soil/rock types and geomorphology: and scoped, procured and managed a preliminary ground investigation to identify potential geotechnical constraints likely to affect the development.
- **Shancloon Windfarm, Co. Clare, 2025**
Principal Geologist. FT were engaged by RWE to undertake an EIAR for the proposed Windfarm at Shancloon. As part of the submission, Aaron was responsible for undertaking a Karst Assessment Report and the Soils, Geology and Hydrogeology Chapter of the EIAR. As part of the works, Aaron undertook a desk study and site walkover to identify salient features to include relict failures, rock exposures, wet ground, general soil/rock types and geomorphology: and managed a preliminary ground investigation to identify potential geotechnical constraints likely to affect the development.
- **Counmagappul Wind Farm, Co. Waterford, 2024.**
Principal Geologist. FT were engaged by EmPower to undertake an EIAR for the proposed Windfarm at Counmagappul. As part of the submission, Aaron was responsible for undertaking a Geotechnical Assessment Report, Spoil Management Plan and completion of the Soils, Geology and Hydrogeology Chapter of the EIAR. As part of the works, Aaron undertook a desk study and site walkover to identify salient features to include relict failures, rock exposures, wet ground, general soil/rock types and geomorphology: and scoped, procured and managed a preliminary ground investigation to identify potential geotechnical constraints likely to affect the development.
- **Derryclare Peatland Rehabilitation Project, Co. Galway, 2023.**
Lead Principal Geologist. FT were engaged by McCarthy Keville O'Sullivan (MKO) to undertake a geotechnical assessment of the proposed peatland rehabilitation site at Derryclare with respect to peat stability. As part of the geotechnical assessment of the proposed development, Aaron completed a series of walkover surveys, to identify salient features with respect to geotechnics such as geomorphological features, relict failures, rock exposures, wet ground, general soil/rock types and extent of any peat present. Based on the walkover findings, Aaron produced a Geotechnical & Peat Stability Report including recommendations on layout and mitigation measures in respect of peat storage and safe construction practices on site.
- **Keerglen Wind Farm, Co. Mayo, 2024.**
Principal Geologist. FT were engaged by ABO Wind to undertake a Peat Stability Assessment and Spoil Management Plan (to include an assessment on borrow pit viability and sizing). As part of the assessment Aaron undertook a desk study and site walkover to identify salient features to include relict failures, rock exposures, wet ground, general soil/rock types and geomorphology. Work on this project is ongoing and will involve a preliminary ground investigation to inform the planning application.
- **Dunmore East Cliff Protection, Co. Waterford, €300K, Ongoing.**
Project Manager/Principal Geologist. FT were engaged by the Department of Agriculture, Food and the Marine (DAFM) to provide consultancy services for the remediation of an approx. 100m length of unstable cliff section at Dunmore East Fishery Harbour Centre, Co. Waterford. As Project Manager, Aaron is responsible for successful delivery of all five stages of this project to include: Preliminary Design; Detailed Design; Tender Action, Evaluation and Award; Construction Supervision; and Project Handover. He is also responsible for the management of FT's multidisciplinary teams and all associated surveys and assessments. As Principal Geologist, Aaron is responsible for undertaking a robust geotechnical assessment of the exposed rock faces to include recording rock discontinuity data, assessment of groundwater flow, interpretation of ground investigation and photogrammetry data, and determination of potential rock failure mechanisms. He is also responsible for slope analysis using stereographic projection and finite element software methods to determine the most appropriate remediation design
- **Quarry Assessment, Co. Mayo, 2024**
Principal Geologist. FT were engaged by a Confidential Client to undertake an assessment of the western and northern faces of a quarry in County Mayo and report on potential stability issues likely to affect the adjacent lands owned by the Client. As part of this project, Aaron undertook a geotechnical assessment of the exposed rock faces, to include the recording of structural measurements of discontinuities.



Aaron T. Clarke

Chartered Principal Geologist



DESIGNING AND DELIVERING
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Using these data, coupled with field observations and site photographs, Aaron produced a Stability Assessment Report. As part of the reporting, kinematic analyses of the rock faces were undertaken using stereographic projection methods to determine the risk of rock failure.

- **Dunkettle Interchange, Capital Value €215M, 2023.**

Designers Site Representative for the reconfiguration of the Dunkettle Interchange to a free flowing interchange including: a series of direct road links between the N8, the N25 and the N40 and links to the R623 Regional Road in Little Island and Burys Bridge in Dunkettle; one grade separated junction arrangement at the existing N25 to the east of the existing Dunkettle Interchange; four roundabouts – 2 at the grade separated junction and 2 at tie ins with the existing road network; 51 no. major structures of various forms; several culverts where the scheme crosses watercourses or intertidal area; pedestrian and cyclist facilities; and modification of the existing Silversprings junction on the N8 Lower Glanmire Road. Aaron was responsible for inspection and approval of all elements of the earthworks to include material assessment and inspections of pavement subgrade and the formation to structures. Aaron's experience with large earthworks operations was invaluable in the day-to-day operations of this project. It enabled him to advise the Contractor (SISK) as to material acceptability and placement requirements. His efforts during inspections ensured that the highest quality of work was completed and also reduced liabilities associated with poor construction practices.

- **SCPX Erosion Report, South Caucasus Pipeline Company, Azerbaijan, Capital Value <€10K, 2021.**

Lead Engineering Geologist/Technical Lead. Following construction of the South Caucasus Pipeline in Azerbaijan, an annual programme of erosion control monitoring surveys was completed. AECOM were commissioned to report the findings of these surveys, which were undertaken by a third party appointed by the Client. The objective of the reports was to summarise the findings of the erosion control monitoring survey and to analyse the findings in the context of the local ground conditions and recommend remedial actions to rectify significant erosion observed and/or to prevent deterioration of erosion control measures that are in place. Aaron was responsible for reporting on the second round of erosion control monitoring. This required a detailed understanding of soil erosion processes and appropriate control measures. Aaron recognised the limitations associated with reviewing and analysing third party data and made a number of key recommendations to improve the data transfer process thereby reducing overall risk to both the Client and AECOM.

- **M7 Upgrade/R407 Sallins Bypass Scheme, Kildare County Council & TII, Co. Kildare, Ireland, Capital Value €100M, 2019.**

Designers Site Representative Online upgrade of 16km of the M7 between J8 and J11, and construction of the Sallins Bypass (R407) and Sallins Link Road. Works also included extensive earthworks, five new bridges and new/updated drainage networks. Aaron was responsible for inspection and approval of all elements of the earthworks to include material assessment and inspections of pavement subgrade and the formation to structures. Aaron's experience with large earthworks operations was invaluable in the day-to-day operations of this project. It enabled him to advise the Contractor (SIAC/Colas JV) as to material acceptability and placement requirements. His efforts during inspections ensured that the highest quality of work was completed and also reduced liabilities associated with poor construction practices. His in-depth knowledge of the site's geology allowed for quick and decisive assessment of ground conditions; this was particularly evident during piling operations where over drilling was kept to a minimum thereby reducing overall piling costs.

- **M11 Extension Scheme, Wexford Co. Co. & TII, Co. Wexford, Ireland, Capital Value €350M, 2018.**

Designers Site Representative. The project involved construction of 27km of new motorway (M11), 11km of new single carriageway (N30) and 4km of new dual carriageway (N80). Works also included mass earthworks (cut/fil) operations, construction of multiple structures (including the River Slaney Underbridge) and an extensive new drainage network. Aaron was responsible for inspection and approval of all elements of the earthworks to include material assessment and subgrade inspections to structures. Aaron's experience with large earthworks operations was invaluable in the day-to-day operations of this project. It enabled him to advise the Contractor (BAM/Dragados JV) as to material acceptability and placement requirements. His efforts during inspections always ensured that the highest quality of work was completed and also reduced liabilities associated with poor construction practices. Aaron's background in rock mechanics and knowledge of the site's sometimes complex geology perfectly positioned him to undertake rock mass inspections at proposed structure locations and to supervise piling operations at the locations of two of the largest underbridges on site. This removed the requirement to bring in external technical personnel saving time and reducing overall budget costs.

Doireann Tarrant

Senior Project Engineer

CV 01



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Profile

Doireann holds a Master's degree in Structural and Geotechnical Engineering and has a Bachelor of Engineering in Civil, Structural and Environmental Engineering.

She has over 5 years postgraduate experience and is a Senior Project Engineer with Fehily Timoney.

Key Skills

Doireann has experience in:

- Ground Investigations
- Peat Stability Assessments
- Slope Stability Assessments
- Formation Inspection and Approval
- Design of working platforms,
- Design of piled foundations and inspections

Previous Experience Essentials for this Project

- **Ballivor Wind Farm**
Doireann reviewed ground investigation logs and specified laboratory testing to be carried out on soil and rock samples.
- **Lemanaghan Wind Farm, Co. Offaly**
Doireann carried out a peat stability assessment and a detailed peat and spoil management plan which involved a site walkover, peat probing, shear vane testing and associated reporting. This helped to inform the client on the high risk areas, areas of deep peat and areas where peat instability may be a concern.
- **Shanclon Wind Farm, Co. Offaly**
Doireann carried out a peat stability assessment and a detailed peat and spoil management plan which involved a site walkover, peat probing, shear vane testing and associated reporting. This helped to inform the client on the high risk areas, areas of deep peat and areas where peat instability may be a concern.
- **Cloonkett Wind Farm, Co. Clare**
Doireann carried out hydrogeological monitoring across this site which involved the installation of a series of piezometers across the site along with monthly monitoring of the water levels. The results from this were assessed within a hydrogeological report as part of the main EIAR chapters.
- **Kilbarry Slope Stability Assessment**
Doireann carried out the slope stability assessment on a historic landfill site in Waterford. This involved visually inspecting the slope for any signs of instability or indications of future slope failure. She provided recommendations for slope monitoring and further slope remediation works.
- **Southeast Greenway Project**
Doireann was responsible for producing the ground investigation specification for the proposed greenway project Lots 4, 5b, 6, 7 and 8a. This involved choosing suitable locations and investigation methods along the scheme to achieve enough information to inform the design. She also supervised the ground investigation works including trial pits, boreholes and rotary cores and specified laboratory testing to be carried out on soil and rock samples.

Key Information

Qualifications

MSc Structural and Geotechnical Engineering, Trinity College Dublin, 2022

BEng Civil, Structural and Environmental Engineering, University College Cork, 2019

Professional Memberships

Engineers Ireland

Employment History

2024 – Present

Fehily Timoney & Company
Senior Project Engineer

2022 – 2024

AGL Consulting
Geotechnical Engineer

2019 – 2022

StructureCraft Contracting Ltd.
Project Manager & Estimator

2018 – 2018

RPS Engineering Consultancy
Civil Engineer Intern

Doireann Tarrant

Senior Project Engineer

CV 01



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- **U-Store It Liffey Valley**

Doireann was responsible for producing the ground investigation specification for the proposed warehouse facility on a brownfield site in Liffey Valley. This involved choosing suitable locations and investigation methods to collect enough information to inform the design. She also supervised the ground investigation works including trial pits, boreholes and rotary cores and specified lab testing to be carried out on soil samples. During the construction stage she supervised excavation of foundations and also inspected and approved subgrade at sub formation level prior to concrete pours.

- **Abbott Pharmaceutical Manufacturing Facility Kilkenny, €440 million**

Doireann supervised excavation of pad foundations and inspected and approved subgrade at formation level for pad foundations of the Abbott manufacturing facility.

- **Rosslare Europort Terminal 7, €166 million**

Doireann supervised the ground investigation including cable percussion boreholes, rotary coring and plate load testing. She logged and supervised trial pitting and in-situ testing at over 30 no. locations comprising complex made ground conditions. She supervised excavation and construction of the pavements across the site and provided instruction on ground improvement measures for the varying subgrade. Doireann acted as the client point of contact for the design of working platforms, slope stability solutions, and stockpile management during the construction stage.



Yumi Mihara
Senior Project Ecologist
CV 01



Profile

Yumi is a Project Ecologist working as part of the Energy and Environment Team at Fehily Timoney and Company. Yumi has specialised in botany, with over 8 years’ experience working in ecological consultancy section across Japan and Ireland. She holds a Master’s degree in Environmental Science from Hokkaido University with a focus on Plant Physiology and a Bachelor’s degree in Environmental Science from Tokyo University of Agriculture with a focus on Habitat Classification via Phytosociological Method.

She has practical field survey skills in botany, such as for rare/protected/invasive plant survey, habitat classification and mapping, relevé survey, assessment for Annex I type habitats, and provided detailed floristic data to report authors. Habitats which she has surveyed are diverse, including subalpine mountains at approx. 1900m – 2900m in Japan, and alluvial woodlands, heathlands, raised bogs, blanket bogs, calcareous grasslands, coastal cliffs and urban areas in Ireland.

She has also prepared reports on Appropriate Assessment Screening (AA), Natura Impact Statements (NIS), Ecological Impact Assessment (EclA), Hedgerow Appraisal and Invasive Species Management Plan (ISMP) for telecommunicate infrastructure, small to large-scale residential developments and other construction in Ireland.

Key Skills

- Yumi’s key skills including:
- Plant and Charophyte Identification
 - Flora Survey
 - Habitat Survey/Assessment/Mapping
 - Vegetation Classification
 - Draw Cross-section of Habitat
 - Hedgerow Appraisal
 - Biodiversity Net Gain
 - Tree Census
 - Report Writing (Appropriate Assessment, Natura Impact Statement, Ecological Impact Assessment, Invasive Species Management Plan)
 - GIS Works
 - Project Management

Previous Experience Essentials for this Project

Key Achievements for Habitat Assessment

- **Habitat Assessment for potential Annex Type Habitats, Ireland, 2023-2025**

Yumi responded to further information requests from local authorities to assess the conservation value of sites potentially qualifying as Annex I type habitats, particularly within or adjacent to SACs for inclusion in Ecological Impact Assessments (EclA) reports. She adapted the survey methodologies and assessment criteria based on the national survey guidelines for Article 17 reporting, conducted on-site habitat classification by collecting relevés (vascular plant species lists and cover data), and authored habitat assessment reports. Habitats assessed were included calcareous grassland, heath, saltmarsh, and vegetated sea cliffs across Ireland.

Key Information

Qualifications

- MSc Environmental Science (Plant Physiology), Hokkaido University, Japan, 2017
- BSc Environmental Science (Phytosociology), Tokyo University of Agriculture, Japan, 2015

Professional Memberships

2022 – Present

Botanical Society of Britain and Ireland (BSBI)

2022 – Present

Qualifying Membership of the Chartered Institute of Ecology and Environmental Management (CIEEM)

Employment History

2025 – Present

Fehily Timoney & Company
Senior Project Ecologist

2022 – 2025

Enviroguide Consulting a DNV Company
Project Ecologist

2017 – 2022

Econixe Ltd, Japan
Botanist



Yumi Mihara

Senior Project Ecologist

CV 01



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- **National Habitat Mapping Projects, Japan, 2017-2022**

Yumi contributed as a lead botanist to the development of detailed habitat maps across multiple 10km grid squares nationwide, collecting numerous relevés in various types of semi-natural and natural woodlands, fens, semi natural grasslands on lowland to subalpine areas. Her deliverables have been published on the website of the Biodiversity Centre of Japan to be utilized as the environmental baseline information for research and assessments across country (<https://www.biodic.go.jp>)

Other Projects

- Restoration Project for Subalpine Raised Bog, Northern Japan – Relevé survey for monitoring, plant and *Sphagnum* identification, habitat classification statistics analysis via R, report writing.
- River Dredging Projects, Northern Japan – Project management, rare plant surveys, designing transplantations of identified rare plants as mitigation measurements, supervising the constructors to conduct the transplantations.
- Bullet Train Development Project, Northern Japan – Project management, habitat survey collecting relevés, rare plant survey, designing and taking agreements with landowners for transplantation of identified rare plants, report writing for botanical sections, assistant for vantage point (VP) surveys for raptors, point-transect sampling surveys for birds, population surveys for clawed crayfish, mammals, amphibians and reptiles, sampling for Invertebrates by sweep netting, beating, sieving, suction sampling, pitfall trapping, deadwood searching and light trapping and electrofishing.
- Hydropower Plant Projects, Northern Japan – Relevé survey, drawing cross-section diagrams of habitats, report writing for botanical sections, assistant for lichen/bryophyte monitoring survey, VP surveys for raptors, point-transect sampling surveys for birds, population surveys for clawed crayfish, mammals, amphibians and reptiles, sampling for Invertebrates by sweep netting, beating, sieving, suction sampling, pitfall trapping, deadwood searching and light trapping and electrofishing.
- Confidential telecommunicate infrastructure across Ireland –Relevé surveys, rare/protected/invasive plant species surveys, assessments for Annex I type habitat heaths and blanket bog, AA Screening, NIS and ISMP reporting, reviewing reports.
- Confidential residential development, Co. Roscommon – Relevé survey, assessment for Annex I type habitat calcareous grassland.
- Confidential residential developments, Co. Dublin – Hedgerow appraisals, transect surveys, emergence and re-entry roost surveys. & static detector deployment for bats.
- Confidential amenity area development, Co. Wexford – Relevé survey, assessment for Annex I type habitat vegetated sea cliff, reporting the botanical section for EclA.
- Confidential solar farm project, Co. Offaly – Habitat survey for Preliminary Environmental Appraisal (PEA).
- Confidential industrial development, Co. Wicklow – Project management, reporting ISMP.
- Confidential industrial development, Co. Wicklow – Relevé survey, assessment for Annex I type habitat saltmarsh.
- Confidential cliff protection construction, Co. Wexford – Reporting EclA.
- Confidential road development, Co. Donegal – Relevé survey, assessment for Annex I type habitat wet heath and raised bog.
- Confidential road development, Co. Kerry – Reporting AA.
- Confidential wind farm project, Co. Laois and Co. Offaly – Relevé survey.



Shannon Burke

Project Ecologist



Profile

Shannon is a Project Ecologist on the Energy and Planning team at Fehily Timoney and Company. She holds a BSc (Hons) in Plant Biology and a PhD in Environmental Biology from University College Dublin. She has researched a variety of environmental topics, including plant physiology, biological invasions, and wetland ecology. Her PhD research focused on the carbon stocks and sequestration rates of Irish coastal wetlands. Shannon has extensive knowledge in terrestrial, coastal, wetland, and freshwater ecology and has completed a wide range of fieldwork nationwide including soil, habitat, macroinvertebrate, and ornithological surveys. She is also experienced in laboratory work, desk-based studies, and teaching.

Shannon has developed strong skills in mapping, data management, statistical analysis, and report writing through her PhD. She is an experienced technical writer, having published in several scientific journals and completing a PhD dissertation.

Shannon specialises in plant identification, habitat classification, and freshwater invertebrate ecology, with additional experience in invasive species, ornithology and bats. Since joining FT, she has honed these skills through ecological surveys, Appropriate Assessment Screening reports, Ecological Impact Assessment reports, and Natura Impact Statements.

Key Skills

- Report writing skills
- Field research skills
- Plant identification
- Habitat classification
- Freshwater and terrestrial macroinvertebrate surveys
- Mammal identification
- Mapping in QGIS
- Statistical analysis through R
- Data management in Excel

Previous Experience

Wind Energy Projects

- Bangarriff Wind Farm: Habitat surveys
- Cushaling Wind Farm: Habitat surveys
- Goulacullin Wind Farm: Preliminary ecological assessment/ecological constraints survey

Solar Energy Projects

- Coolmore Solar and BESS Feasibilities: Habitat, mammal, aquatic and river habitat surveys
- Killough Solar Farm: Habitat and vegetation surveys, bat preliminary bat roost assessments
- Maganey Solar Farm: Habitat and vegetation surveys, mammal surveys, bat activity surveys

Key Information

Qualifications

- PhD Environmental Biology, University College Dublin, 2024
- BSc Plant Biology, University College Dublin, 2019

Employment History

2024 – Present

Fehily Timoney & Company
Project Ecologist

2024

University College Dublin
Technical Officer (Part-time)

2019 – 2024

University College Dublin
Senior Laboratory Demonstrator



Shannon Burke

Project Ecologist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Miscellaneous Energy Projects

- Lettermore Energy Storage Project: Preliminary ecological assessment
- Celtic Interconnector Ecology: Vegetation surveys of donor site for green hay translocation

Landfill Projects:

- Corranure Landfill: Habitat surveys, mammal surveys, preliminary bat roost assessments and bat activity surveys
- Four Closed Landfill Sites in Co. Wexford: Constraints surveys pre vegetation clearance including invasive species, mammals, and breeding/roosting birds
- Tipperary Town Historical Landfill: Invasive species management surveillance

Greenways:

- South East Greenway: Preliminary bat roost assessments and bat activity surveys, mammal surveys, habitat and vegetation surveys, Barn owl survey, AA screening reports
- Nenagh Pedestrian and Cycle Scheme (Nenagh Urban Greenway): Preliminary bat roost assessment and bat emergence surveys, kingfisher vantage point surveys, habitat and vegetation surveys, mammal surveys, river habitat assessments, AA screening reports, Natura Impact Statement, and Ecological Impact Assessment Report
- Grand Canal Greenway: Habitat surveys, mammal surveys
- Wexford to Rosslare Greenway: Bird vantage point surveys

Miscellaneous Projects:

- Skyline Gondola Project: Bat roost assessments, bat activity surveys
- Esker Permeability Scheme: Bat roost assessments and activity surveys, mammal surveys, habitat and vegetation survey
- Gorey Relief Road: Habitat surveys, mammal surveys, river habitat assessments, wintering bird transects, AA screening reports, Ecological Impact Assessment
- John Street Grainstore, New Ross: Otter surveys, AA screening report and Natura Impact Statement
- Duleek Linear Park: Habitat and invasive species surveys, preliminary bat roost assessments, river habitat assessments, Ecological Impact Assessment
- N56 Doonwell to Drumbrick Road Scheme: Preliminary habitat assessment, mammal surveys, river habitat assessment, freshwater pearl mussel stage 1 surveys, AA screening report, Natura Impact Statement



Kate O'Regan

Project Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Kate O'Regan is a Project Ecologist with three years' experience in consultancy with FT. She holds a first-class BSc. in Zoology and first-class MSc in Marine Biology from University College Cork. Since joining Fehily Timoney, Kate has experience with Appropriate Assessment screenings (AAs), Ecological Impact Assessments (EclAs), Preliminary Ecological Appraisals, Ornithology Collision Risk Models and EIAR ornithology chapters. I have also conducted a range of fieldwork surveys including bat surveys, habitat surveys, white-clawed crayfish surveys, river habitat surveys, mammal surveys, breeding bird surveys, avian vantage point surveys, dedicated hen harrier roost surveys, red grouse tape lure surveys and marsh fritillary surveys

Key Skills

- Excellent report writing skills
- Field research skills
- Bat Survey Skills – activity survey, emergence surveys, static deployment preliminary bat roost assessment
- Bat ID Analysis – Bat Explorer, Kaleidoscope
- Habitat Surveys – ARCGIS, Fossitt
- Bird Identification
- Mammal Survey Skills
- Freshwater and River Habitat Surveys
- Marine intertidal and subtidal species identification
- Leadership and management
- Data handling and statistical analysis – excel and R
- QGIS training
- Appropriate Assessment (AA): Habitats Directive
- Ecological Impact Assessment (EclA)

Project Experience

Wind Energy

- Proposed Wind Farm Co. Tipperary (1): marsh fritillary surveys, bat static detectors, bat activity surveys
- Proposed Wind Farm Co. Tipperary (2): Project management, bird data analysis
- Proposed Wind Farm Co. Cork: Project management, bird data analysis
- Proposed Wind farm Development in Co. Offaly - hen harrier surveys, Collision Risk Model (CRM)
- Proposed Wind Farm Development Cork – Bat detector deployment, bat activity surveys, tape lure surveys
- Shanclon WF – Ornithology Chapter

Key Information

Qualifications

MSc Marine Biology, University College Cork, 2022 (First Class Hons.)

BSc Zoology, University College Cork, 2020 (First Class Hons.)

Joint Nature Conservation Committee (JNCC) - Marine Mammal Observer, 2023

Employment History

2022 – Present

Fehily Timoney & Company
Graduate Ecologist

2022

Marine Institute SMART Bursary
Celtic Sea Herring Acoustic Survey

2021

Ocean Research and Conservation Association
Ireland (ORCA Ireland)
Research Observer Intern

2020 - 2021

Ocean Research and Conservation Association Ireland
(ORCA Ireland)
Conservation Officer

2018 – 2019

Wildlife Sense (sea turtle research and conservation organization) Kefalonia, Greece
Research Volunteer



Kate O'Regan

Project Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Solar Energy

- Cappakeel Solar Farm: lamprey surveys, white-clawed crayfish surveys, grid route connection ecology surveys, EclA and NIS

Circular Economy Projects

- AA Screening and EclA for healthcare waste facility in Cork City
- Habitat surveys, bat emergence surveys, RHS, mammal surveys at bioenergy project in Carlow

Infrastructure

- Grand Canal Bridges – Ecological Impact Assessment
- Cork City Bridge Repairs Twopot and Ballincrussig Bridges: RHS, habitat surveys, EclA, AA Screenings, bat emergence surveys, mammal surveys, trail cam deployments
- Cork County Bridge Repairs – Toormore EclA and AA, bat activity surveys, habitat surveys, RHS. Gortafluddig bridge badger sett trail cam deployment/survey.
- Tralee- Listowel Greenway: Breeding bird surveys, hen harrier surveys habitat surveys, otter surveys, mammal surveys, trail cam deployment. Preparation of Options report

Previous Experience

Awarded a Marine Institute SMART Bursary, Kate was a researcher onboard the 'RV Tom Crean' assisting in acoustic surveys and biological sampling from midwater pelagic trawls to determine age stratified estimate of relative abundance of herring in the Celtic Sea.

During her MSc thesis, Kate advanced her data management, statistical analysis and mapping skills using R and QGIS. She also conducted desk-based assessments and field work to deploy GPS tags on the gulls

As a research intern with ORCA Ireland, Kate spent three months onboard eco-tour operators in West Cork conducting marine mammal surveys and engaging with the public about marine ecology and conservation.

Kate has also led a group intertidal research project on the Isle of Cumbrae, Scotland as part of her MSc studies. She showed strong management, coordination, delegation and organizational to ensure successful progress and completion of this project.



Orla Commins

Graduate Ecologist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Orla Commins is a Graduate Ecologist with Fehily Timoney and Company. She holds a first-class BSc in Ecology and Environmental Biology from University College Cork.

Since joining Fehily Timoney, she has undertaken a wide range of fieldwork, encompassing bat surveys (static detector deployment & activity surveys), marsh fritillary, mammal, habitat and ecological walkover surveys.

She has prepared Appropriate Assessment Screening reports, Ecological Impact Assessments and baseline reports including ornithology and bat reports, in addition to analysis of bat survey data, mapping and data management.

Key Skills

- Report writing
- Ecological walkover surveys
- Bat surveys
- Bat identification
- Mammal sign identification
- Mapping in QGIS
- Data management

Previous Experience

Wind Energy Projects

- Proposed Wind Farm Co. Cork - habitat surveys, static bat detector deployment, bat activity surveys, bat data analysis
- Kilgarvan Wind farm – static bat detector deployment, bat data analysis
- Proposed Wind Farm Co. Cork – Static bat detector deployment, bat activity surveys, Kerry slug surveys, bat data analysis
- Proposed Wind Farm Co. Offaly – hen harrier surveys, Winter bird survey
- Proposed Wind Farm Co. Galway – winter bird survey, bat detector deployment, breeding bird transects, white-fronted goose survey, bat data analysis
- Proposed Wind Farm Co. Cork – data management, report writing
- Proposed Wind Farm Co. Cork – audiomoth deployment
- Proposed Wind Farm Co. Cork – bat roost survey, otter survey, freshwater pearl mussel habitat assessment
- Proposed Wind Farm Co. Carlow – habitat survey, bat activity survey, mammal survey
- Proposed wind farm Co. Tipperary – habitat surveys, bat detector deployment, bat activity survey, marsh fritillary survey, mammal survey, data analysis, report writing

Solar Energy Projects

- Proposed Solar Farm Co. Galway – static bat detector deployment, bat activity surveys

Key Information

Qualifications

BSc Ecology and Environmental
Biology, University College Cork, 2024

Employment History

2024 – Present

Fehily Timoney & Company
Graduate Ecologist

2023

Dawn Meats
Work Placement



Orla Commins

Graduate Ecologist



Miscellaneous Projects

- Proposed trailhead in Co. Kildare – AA & EcIA
- Proposed Bridge Repairs Co. Cork – Bat emergence survey, mammal survey
- Proposed Greenway in Co. Kerry – Hen harrier survey, otter survey, mammal survey
- Proposed Active Travel Scheme in Co. Cork – Options reports
- Proposed bioenergy project in Co. Carlow – Habitat surveys, bat emergence surveys, mammal surveys
- Proposed bus stops in Co. Limerick – Habitat surveys, otter surveys
- AA & EcIA for historic landfill Co. Galway
- AA & EcIA for landfill Co. Monaghan
- AA for Road Scheme Co. Donegal
- Groundwater sampling for project in Co. Cork
- Red Grouse Surveys, VP ground truthing surveys, habitat assessment in Co. Louth
- Post-construction Grey Heron and Little Egret colony surveys in Co. Cork



Carla Deane

Project Ecologist



Profile

Carla holds a Bachelors of Science in Zoology from University College Dublin and a Masters of Science in Marine Biology from University College Cork. She is a motivated and hardworking consultant ecologist, with over two years of professional experience delivering ecological assessments, surveys, and project management across Ireland. Carla has authored Appropriate Assessment (AA) Screenings, assisted with Natura Impact Statements (NIS), and Ecological Impact Assessments (EclA) for a variety of developments. She is currently a project ecologist at Fehily Timoney and Company Ltd.

Key Skills

Excellent report writing skills

Authored and assisted in completion of Appropriate Assessment (AA) Screenings, Natura Impact Statements (NIS), and Ecological Impact Assessments (EclA) for developments ranging from small-scale housing schemes to large infrastructure projects, including data centres, solar farms, and power stations.

Field research skills

- Extensive experience of bat surveys (activity, emergence/ re-entry, roost inspections, and GLTA, static deployment)
- Wintering bird surveys
- Habitat surveys on large infrastructure projects
- SSRS aquatic surveys
- Amphibian surveys
- Terrestrial mammal surveys

Desk based skills

- QGIS
- Project Management
- Client liaising
- Communication & Presentation
- Data Management
- Bat acoustic analysis
- Survey planning and coordination

Previous Experience Essentials for this Project

Wind Energy Projects

Proposed Wind Farm, Co. Clare

Bat data analysis

Proposed Wind Farm, Co. Cork

Bat data analysis

Kilgarvan Wind Farm, Co. Kerry

Amphibian surveys

Key Information

Qualifications

BA (Hons.) Zoology University College Dublin, 2008

MSc. Marine Biology University College Cork, 2022

Professional Memberships

Certificate in Irish Wildflower Identification - ATU Sligo (2025)

Certified Bat Acoustic Analysis Technician for Irish and UK bat species – BatAbility (finishes in Oct 2025)

Certified Marine Mammal Observer – JNCC & NPWS

Certificate in Project Management Fundamentals - Institute of Project Management.

National Powerboat Certificate (2022)

PST STCW 95 Certificate (2022)

Divemaster– PADI

Employment History

2025 – Present

Fehily Timoney & Company
Project Ecologist

2024 – 2025

Scott Cawley
Consultant Ecologist

2023 – 2024

Scott Cawley
Seasonal Bat Ecologist

2023 – 2023

Marine Institute Ireland
Marine Student

2022 – 2022

Sharklife Ltd
Researcher



Carla Deane

Project Ecologist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Proposed Wind Farm, Co. Tipperary

Report Writing

Solar Energy Projects

Proposed Solar Farm, Co. Cork

Habitat Surveys, Bat Ground Level Tree Assessment

Miscellaneous Projects

Proposed Road Scheme Co. Tipperary

Bat activity survey, amphibian surveys, bat static deployment, habitat surveys, bat data analysis, report writing, EclA

N6 Galway City Ring Road, Co. Galway

Bat activity surveys, bat data analysis, amphibian surveys, report writing

Proposed Development, Sandyford, Co. Dublin

AA Screening, bat static deployment, bat roost inspection, habitat survey, project management

Proposed Development, Athlone, Co. Roscommon

Winter bird surveys, bat activity surveys, bat data analysis, SSRS survey

Proposed Development, Ashtown, Co. Dublin

AA Screening, habitat survey, mammal survey, bat ground tree level assessment, otter survey, project management

Proposed Development, Cahersiveen, Co. Kerry

AA Screening, Biodiversity Management Plan, Habitat survey, Preliminary bat roost inspection, mammal survey, project management

STEPHEN

KING

Field Environmental Surveyor

PROFILE

A resourceful, highly motivated and ambitious person, with deep experience in avian characteristics and behaviors. Offering practical experience gained whilst working with FTC, including strong data and analysis skills. A multiskilled team player with a transferrable skillset gained from a long and diverse exposure to bird watching from a young age, and commitment to quality. Seeking an ecologist role requiring specialist quality monitoring expertise.

CONTACT

PHONE:
0858329411

EMAIL:
Kinger901@gmail.com

HOBBIES

Bird watching
Reading
Travel
Fitness and Well-Being
Family Life

CORE SKILLS

Full Driving License
Relationship Management
Attention to Detail
Analytical
Team Collaboration
Results Focused
Flexibility
Decision Making

EDUCATION

Clonkeen College
2001 - 2007

Maymooth University
2022 - 2023
Political Science and International Relation (Lvl 7)

WORK EXPERIENCE

FTC Field Environmental Surveyor
2020
Littleton
Vantage Point Surveys
Transects
Hen Harrier Roost Watches

FTC Field Environmental Surveyor
2021
Garryhinch
Vantage Point Surveys
Transects
Hen Harrier Roost Watches

FTC Field Environmental Surveyor
2022–Present
Wexford Greenway
Vantage Point Surveys
Tidal Count Surveys
Transects

BIRDWATCHING ACHIEVEMENTS

- Birding since the age of Four
- Birded Europe, Africa, Asia, Middle East and North America
- Found Spains 2nd Bar Tailed Lark
- Found Irelands 2nd Eastern Black Eared Wheatear
- Founder of Irelands "Rare and Scarce" Whatsapp group contributing to bringing all of Irelands bird news to one place for over 350+ people

Ross Macklin PhD (in prep) B.Sc. (Hons) MCIEEM., MIFM, HDip GIS, PDip IPM
Principal ecologist – Triturus Environmental Ltd.
rossmacklin@gmail.com
087-9208742



Biography

Ross is an ecologist with over 15 years' professional experience in Ireland. He specialises in freshwater fisheries ecology, biology and water quality. He has considerable experience in a wide range of ecological and environmental projects including EIAR, EcIA and AA/NIS reporting, as well as biodiversity, water quality monitoring, invasive species and fisheries management. He also has expert identification skills in macrophytes, freshwater invertebrates, protected aquatic habitats and protected aquatic species including freshwater pearl mussel. His diverse project list includes work on renewable energy developments, flood relief schemes, road schemes, blueways/greenways, biodiversity projects, fisheries management projects and catchment wide water quality management.

He is currently completing his Ph.D. on the ecology and impact of common carp (*Cyprinus carpio*) in Irish waters.

Qualifications

- B.Sc. (Hons) Applied Ecology, University College Cork (2000-2004)
- HDip GIS, University College Cork (2006)
- PDip Integrated Pest Management, University College Dublin (2016)
- Ph.D. Environmental Science, University College Cork (2011-present part-time)

Professional affiliations

- Full member of Chartered Institute of Ecology and Environmental Management (CIEEM)
- Registered member Institute of Fisheries Management (MIFM)

Employment history

- 2005 – 2009 – Environmental consultant, Atkins
- 2010 – 2018 – Self-employed environmental consultant, Triturus Environmental Services
- April 2019 – present – Principal ecologist, Triturus Environmental Ltd.

Key skills and assets

- EIAR, EcIA, AA, NIS
- Fisheries assessments & fisheries habitat management
- Ecological Clerk of Works & expert witness
- Biological water quality (Q-sampling, SSRS, SSIS, RIVPACS)
- Habitat mapping
- Ecological design and habitat creation
- RHAT, River Habitat Surveys, Lake Habitat Surveys, Canal Habitat Surveys, Pond Surveys, Habitat Suitability Indices
- Invasive species
- Otter surveys (including Human Disturbance Index)
- Protected species (white-clawed crayfish, freshwater pearl mussel, amphibians, mammals, macrophytes, bryophytes)
- Biodiversity enhancement & community engagement
- Catchment water quality management plans
- Geographical Information Systems, Digital Terrain Models, Lake Bathymetric Studies & Drone Flight

Selected project experience

Lake and river habitat surveys (including water quality analysis)

Páirc na Mara Marine Innovation Park, 2018-2020 (client: Ryan Hanley/ Údarás na Gaeltachta)

Preparation and management of Biodiversity & Water Quality Chapter for EIAR report. The project involved fresh water abstraction from the Lough Skannive catchment, Co. Galway and the development of a marine innovation park. Extensive baseline surveys were completed including catchment-wide electro-fishing, Arctic charr netting and spawning surveys, physiochemical water quality including Q-sampling, lake macro-invertebrates, detailed lake habitat surveys including macrophytes and classification of Annex I oligotrophic isoetid lake habitat (3110). The baseline surveys were conducted in 4 lake basins and in multiple feeder rivers. The baseline data compiled informed the preparation of a very detailed Environmental Impact Assessment report that involved a multidisciplinary approach. It included the application of water balance modelling according to UKTAG thresholds relative to the identified aquatic sensitivities. This ensured Water Framework Directive compliance in adherence to a detailed schedule of environmental commitments. It also delivered commitments to protect Annex I aquatic habitats and salmonid fish.

Loch an Mhuilinn water abstraction, 2017 (client: Ryan Hanley)

Detailed bathymetric study of Loch an Mhuilinn, Co. Galway to inform fresh water abstraction, in addition to aerial drone surveys. Surveys were undertaken using state of the art hardware and software, RTK-enabled Trimble GPS, Lowrance SONAR, Ebee Sensee Fixed Wing Drone and Reefmaster Software. The Annex I littoral habitat 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) was characterised with over 20 species of macrophyte plants records including *Nitella flexillis* and *Elatine hydropiper*. Lacustrine littoral salmonid spawning areas were identified and a comprehensive report was prepared.

Dublin City otter survey, 2018-2020 (client: Ryan Hanley)

Completed the largest survey of urban otter populations in Ireland to date and prepared a comprehensive report with a large focus on management and conservation. The lower reaches of over 20 watercourses within Dublin City were surveyed for otter signs, with a particular emphasis on quantifying and mapping otter habitat. RHAT methodology was used to classify and map otter habitat quality along 500m sections of each watercourse. Novel methodology (the Human Disturbance Index, HDI) was developed by Triturus and used to detect relative levels of human disturbance/encroachment on riparian areas and the relative effects on otter sign distribution. The study identified an important link between riparian seclusion and otter breeding areas, greatly informing future management in Dublin City and improving knowledge of urban otter populations.

Irish Water SSRS surveys, 2018 (client: Irish Water)

SSRS surveys and reporting were undertaken for the National Certificate of Authorisation Programme (NCAP), which provides for smaller wastewater agglomerations (i.e. <500 PE). A survey and reporting was undertaken in receiving watercourses within 25 catchments inclusive of reporting.

IPPC licence compliance, 2019 (client: Duffy Meats t/a Kerry Foods)

Detailed Q-sampling and physiochemical analysis was undertaken across 12 no. watercourses to ensure IPPC licence compliance. This included riverine habitat surveys examining algae coverage, macrophyte coverage, gravel condition index and physiochemical data analysis of historical trends relative to targets of the Surface Water Regulations S.I. No. 77/2019.

Kilbarry Bog landfill, 2018-2020 (client: Ecosystem Services & Waterford City Council)

Detailed physiochemical and biological water quality analysis (Q-sampling) in addition to macrophyte surveys were undertaken to inform the preparation of the aquatic elements of annual environmental reporting. This included physiochemical and biological water quality sampling of 10 no. riverine sites in addition to 3 no. habitat compensation pond habitats (including PSYM methodology to assess ecological quality).

Kepak Environmental Report & IPPC license return, 2009-2014 (client: Kepak Group)

Preparation of biological and pathogenic water quality reports for Kepak Group, Condonstown, Co. Cork as part of their annual license return. This involved Q-sampling of riverine invertebrates and pathogenic water quality analysis.

Castlewaller wind farm, Co. Limerick, 2019 (client: Fehily Timoney)

Baseline physiochemical and biological water quality sampling (Q-sampling, 12 sites) in addition to catchment-wide electro-fishing and white-clawed crayfish surveys, was undertaken along a proposed cable route in the catchment of the proposed Castlewaller wind farm, Co. Limerick to inform EIAR preparation.

Derrinlough wind farm, Co. Offaly, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling) in addition to a fisheries habitat assessment, was undertaken in the catchment of the proposed Derrinlough wind farm, Co. Offaly to inform EIAR preparation.

Croagh wind farm, Co. Leitrim, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling, 13 sites) in addition to catchment-wide electro-fishing was undertaken along a proposed cable route in the catchment of the proposed Castlewaller wind farm, Co. Leitrim to inform EIAR preparation.

Croaghaun wind farm, Co. Carlow, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling, 21 sites) in addition to catchment-wide electro-fishing was undertaken in the catchment of the proposed Croaghaun wind farm, Co. Carlow to inform EIAR preparation.

Knockharley landfill, 2019 (client: Fehily Timoney)

Baseline physiochemical and biological water quality sampling (Q-sampling & SSRS), RHAT scores and electro-fishing was undertaken in the catchment of Knockharley Landfill to inform EIAR preparation.

Fisheries

Ballynacarrig River rehabilitation project, Co. Offaly, 2019 (client: LAWPRO)

Undertook a baseline aquatic assessment of the Ballynacarrig River (Silver River tributary) that included an assessment of fisheries (electro-fishing), biological and physiochemical water quality, and macrophytes. A detailed river management plan was prepared to help LAWPRO enhance the water quality and fisheries value as part of the Environmental River Enhancement Fund (EREP), as a designated 'Area For Action' within the wider catchment.

Owenacurra (Midleton) Flood Relief Scheme, 2018-2019 (client: Arup)

Conducted a catchment-wide electro-fishing survey in the Owenacurra and Dungourney River systems to establish a baseline of lamprey, salmonid and eel populations. Utilised a fixed-wing drone and RHAT surveys to establish the most pristine areas of channel pre-construction works and conducted detailed redd counting surveys and substrate assessments for sea trout and Atlantic salmon populations in the catchment.

River Barrow weirs fisheries survey, 2018 (client: McCarthy Keville O' Sullivan & Waterways Ireland)

Conducted an electro-fishing survey of three large weir sites on the River Barrow and prepared a detailed fisheries report on the conservation objective fish species found in the River Barrow and River Nore SAC. Used a 3m-RIB and bathymetric software to profile the sediment classes in order to establish the distribution of soft lamprey ammocoete habitat relative to proposed weir upgrade works and identified fisheries constraints based on the proposals.

Sea Lamprey *Petromyzon marinus* spawning survey, Lower Mulkear River, 2018 (client; IDA & Fehily Timoney)

Undertook a sea lamprey spawning survey of the Lower Mulkear River, Co. Limerick used a fixed-wing drone and infrared imagery to detect sea lamprey redds. Redd sites were validated on the ground using an RTK-enabled Trimble GPS and a correction factor was developed based on the accuracy of detection by the drone relative to data collected in the field. The project successfully established the most important zones of the river used by spawning lamprey with over 50 redds detected. This was the first time an aerial drone had been used to map sea lamprey redds in Ireland.

Macrophytes

Lough Skannive water abstraction, Carna 2019 (client: Ryan Hanley)

Conducted a detailed lake habitat survey of the macrophyte community of a 50-hectare lake using transects. This helped profile vegetation corresponding to the Annex I 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) and informed EIAR preparation.

Killaloe Canal Greenway, Co. Clare, 2019 (client: MKO).

Conducted detailed macrophyte, invasive species and fisheries surveys to inform an Ecological Impact Assessment (EclA) for a proposed Blueway development in Killaloe.

Opposite-leaved pondweed (*Groenlandia densa*) management plan, 2018 (client: Fehily Timony)

Undertook an opposite-leaved pondweed survey of the Loughmore Canal, Co. Limerick through a full macrophyte plant audit of the canal. A detailed management plan was prepared in light of proposed flood alleviation works

Floating river vegetation survey of the Lower River Lee, Co. Cork, 2015 (client: Ryan Hanley & OPW)

Conducted a detailed study of the distribution of floating river vegetation in the Lower River Lee between Inniscarra Dam and Cork City Centre. Transect and underwater dive surveys were undertaken using random replicated blocks. The distribution and cover of *Ranunculus*, *Potamogeton*, *Callitriche* and moss species was estimated and distribution maps compiled. It represented one of the most detailed studies in the south of Ireland on the Annex I habitat (3260) Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation.

Tony Cummins BA MA

Senior Archaeologist & EIA Consultant (John Cronin and Associates)

TONY CUMMINS has been a Senior Archaeologist with John Cronin & Associates since 2009 and has accumulated over 29 years' continuous industry experience since graduating with a Master's degree in Archaeology in 1994. He has extensive experience in the preparation of screening reports, option assessments and EIAR chapters for a wide range of large-scale developments, including various wind farm projects (examples provided below).

Professional Qualifications

Batchelor Degree (Archaeology) University College Cork, 1992

Master's Degree (Archaeology), University College Cork, 1994

Areas of Expertise

- Field Surveyor
- Excavation Director
- Desktop Research
- Environmental Impact Assessment Reports (EIAR)
- Archaeological Project Manager on infrastructure schemes
- Liaising with design teams and state/local authorities
- GIS analysis and production of mapping datasets

Relevant Experience

Mr. Cummins worked on a wide range of excavation projects following his graduation with a master's degree in Archaeology in 1994 and was approved as a licence-eligible archaeologist by the National Monuments Service in 1998. Since that time, he has directed numerous excavations in Ireland and also participated in archaeological projects in Britain and Lebanon. He also accumulated management experience as the senior project archaeologist on large-scale infrastructure road schemes, including the Limerick Southern Ring Road and the Waterford City Bypass. Mr. Cummins has prepared assessments for a wide range of energy supply projects over recent decades, and these have included ESBI transmission lines as well as wind and solar farm developments (including associated grid connection and haul routes). His inputs to these projects have included liaising with developers, project designers, statutory authorities and other EIA consultants as well as the preparation of EIAR chapters based on programmes of detailed desktop research and field surveys.

The following are examples of some of his current and recent wind farm projects:

- Garryhinch Wind Farm, Co. Laois
- Castlepook Wind Farm, Co. Cork
- Fahy Beg Wind Farm, Co. Clare
- Annagh Wind Farm, Co. Cork
- Coom Wind Farm, Co. Cork
- Gort Uí Rathaile Wind Farm, Co. Cork
- Inse Mhór Wind Farm, Co. Cork
- Ballykett Wind Farm, Co. Clare
- Moanmore Wind Farm, Co. Clare
- Tullaghmore Wind Farm, Co. Galway
- Croaghaun Wind Farm, Co. Carlow
- Castlegarden Wind Farm, Co. Kilkenny
- Coomnagappul Wind Farm, Co. Waterford
- Dyrick Hill Wind Farm, Co. Waterford



MICHAEL GILL P.Geo.
B.A., B.A.I., Dip. Geol., M.Sc.

Mobile: 086-267 5989
michael@hydroenvironmental.ie

Michael is a Civil Engineer and Hydrogeologist with 22 years of environmental and hydrology/hydrogeology consultancy experience. Michael has completed numerous wetland characterisation projects, drainage and water resource projects, and has extensive regional and local knowledge of wetland systems and blanket and raised bogs across Ireland. Michael has also completed hydrological and hydrogeological assessments and Environmental Impact Assessment Reports for energy-related projects (wind farms and solar), IPPC (peat extraction), quarries, and linear developments such as gas pipelines, and also for road schemes and other infrastructural developments. He has also managed EIAR assessments for infrastructure projects and private residential and commercial developments with particular emphasis on hydrology and hydrogeology, and where required peatland hydrology assessments for AA/NIS.

Nationality : Irish
Profession : Civil/Environmental Engineer and Hydrogeologist
Specialisation : Peatland/Wetland Characterisation, Water Resources, Karst Hydrology,
Flood Risk Assessment, and Engineering Hydrology
Position in Firm : Director/Principal Hydrogeologist

KEY COMPETENCE

- Peatland/Wetland hydrological characterisation and restoration assessments
 - Peatland construction management and water quality controls
 - Environmental impact assessments
 - Hydrology, karst hydrogeology and flood risk assessments
 - Water resource assessment and development
 - Hydrological and hydrogeological monitoring and modelling
 - Wastewater and environmental engineering
-

EDUCATION AND QUALIFICATIONS

- M.Sc. Applied Hydrogeology, Newcastle University, 2009–2013.
 - Dip. Geology, University College Cork, 2008
 - M.Sc. Research (Wetland Hydrology and Conservation), TCD, 2005
 - B.A., B.A.I. (Hons) Civil Engineering, TCD, 1992-1996
 - Member of Engineers Ireland (MIEI)
 - Member of the Chartered Institute of Water and Environmental Management
 - Member of the International Association of Hydrogeologists (IAH).
 - Professional member (P.Geo) of the Institute of Geologists of Ireland (IGI)
 - Member of the Irish Mining and Quarrying Society (IMQS)
-

SUMMARY OF PROFESSIONAL EXPERIENCE

2005 – Present	Director of Hydro-Environmental Services, Dungarvan, Co. Waterford
2001 – 2005	Project Manager/Environmental Engineer, Komex Ireland, Dublin
2000 – 2001	Groundwater Engineer, Geotechnics Ireland Ltd, Carlow
1996 – 2000	Research Assistant (Groundwater and Wetlands), TCD
1998 – 1999	Project Engineer, Minerex Environmental Ltd, Dundrum, Dublin 14
1994 – 1995	Student Engineer, Environmental Division, BnM, Newbridge
1993	Student Engineer, M7/M9 Newbridge/Kilcullen By-pass

SUMMARY OF PROJECT EXPERIENCE

Michael has considerable experience on a vast array of small to large scale engineering projects. He is a lateral thinker and a problem solver. He has regularly worked on multi-disciplinary project teams, and always strives to provide up to date and cutting edge solutions to water related challenges. A brief summary of relevant professional experience is provided below.

Peatland Hydrology Projects

I have worked on peatland hydrology project since 1995. The following is a (non-exhaustive) list of my previous peatland projects:

Raised Bogs/Fens	Clonaslee Fen (Clonaslee Esker and Derry Bog SAC) Raheenmore Bog, Co. Offaly Clara Bog, Co. Offaly Pollardstown Fen, Co. Kildare Clonfinane Bog, Co. Offaly Sharvogue Bog, Co. Offaly All Saints Bog, Co. Offaly Arragh More Bog, Co. Offaly Mouds Bog, Co. Kildare Cloncreen Bog, Co. Offaly Coole Bog, Co. Westmeath Clonsura Bog, Co. Westmeath Fenor Bog, Co. Waterford Tonabrocky Wetland Complex (Galway Outer Bypass) Sluggin Moss, Co. Antrim Carrowmore Lake Complex SAC Newpark Fen, Kilkenny Annagh Wood wetland/Auignaguig bog (N3), Co. Cavan ~150 cutover BnM bogs across all BnM bog units in 9 counties across the midlands (IPC licence reviews and substitute consent planning applications) Drummin Bog Killyconny SAC Loughbally Transition Mire
Blanket Bogs	Liffey Head, Co. Wicklow Oweninny WF, Bellacorick Iron Flush SAC, Co. Mayo Glenamoy Bog - Corrib Onshore Pipeline / Bellanaboy Bridge Gas Terminal Glencullen Bog, Co. Mayo Tullynamoyle, Co. Leitrim Arderoo, Co. Galway Sheskin, Co. Mayo Tawnanasool WF, Co. Mayo

Peat Extraction / IPPC

Hydrological and hydrogeological assessment for peat extraction at Coole and Clonsura bogs for Westland Horticulture Ltd, for EIS relating to IPPC application. Completed hydrological site characterisation, peat depth probing, drainage mapping, piezometer installation and water level and hydrochemical monitoring, and data compilation and reporting. 2012-2013.

Two of the major wind energy projects completed were on sites with existing IPPC licences, and therefore the projects required knowledge and integration of drainage controls and monitoring proposals, i.e. Oweninny Wind Farm and Cloncreen Wind Farm. 2012-2014, and 2016.

Mouds Bog (SAC), hydrological and morphological investigation and reporting to support an IPPC licence application, for Bulrush Horticulture Ltd, Co. Kildare, 2001-2002.

Other key projects - peatland drainage and hydrology

Michael has worked on many major projects that were planned and built on or adjacent to peatland sites. Examples include:

- Corrib Onshore Pipeline / Bellanaboy Bridge Gas Terminal (2002-2003; 2009-2016)
- Oweninny Wind Farm
- Center Parcs – Longford
- 83 no. other wind farm sites (blanket bogs and raised bogs)

Wind Farms – EIAR / peatland drainage and hydrology

Michael has worked on over 120 wind farm projects in Ireland, Northern Ireland and Scotland, starting on his first wind farm project in Scotland in 2002. He has worked on all stages of projects from feasibility assessments, through planning consent/compliance, detailed design, and construction stage monitoring and supervision.

Key wind farm experience:

- >120 no. wind farm related projects
- 3 no. ABP oral hearings, 3 no. PAC planning hearings (NI)
- Involved in 9 no. SID applications
- Involved in >50 no. EIAR assessments for wind farms
- Preliminary drainage designs for >30 no. wind farms

Wind Farm EIARs by County: Galway (11 no.), Mayo (14 no.), Clare (9 no.), Cork (10 no.), Kerry (7 no.), Northern Ireland (21 no.), Leitrim (6 no.), Donegal (8 no.), others (25).

Peatland/Wetland Hydrological Characterisation / AA/NIS Input

Since completing his MSc on peatland hydrology Michael has regularly been involved in projects on peatlands that required hydrological assessment for Natura 2000 sites, including some projects where restoration options were being considered. More frequently now Michael forms an integral part of the preparation of EIAR and AA/NIS documents with direct liaison with ecologists and geotechnical engineers, and planners.

Michael has worked with state agencies (NPWS, OPW, Forest Service, NIEA, EPA, BnM, Coillte) on peatland related projects, and also internationally with English Nature and Staatsbosbeheer (Dutch Forestry Service).

Example projects include:

Corrib Onshore Pipeline; Fenor Bog; Clara/Raheenmore Bogs; Tonabrocky Wetland Complex (Galway Outer Bypass); Bowness Common and Wedholme Flow, English Nature; Rye Water Lake (cSAC); Sharavogue and Clonfinane Bogs; Annagh Wood wetland/Auignaguig bog (N3); Bargerveen Nature Reserve (The Netherlands); Ballykenny Bog and Fisherstown Bog, Shannon Callows Complex; Sluggin Moss; Mouds Bog (SAC); All Saints Bog and Esker SAC; Lough Macask; Carrowmore Lake Complex SAC, Bellacorrick Iron Flush (SAC); Lough Gur.

Groundwater Resources Assessment and Development

Public water supply schemes:

Portarlinton (2000); EVELDEN, Yorkshire (2001); Technical review of the Water Strategy for Co. Kildare (2003); Kenmare Town (2007); Holyford, Co. Tipperary (2008); Inistioge WSS (2015); Stradbally (2016); Tallow (2016); and Ballylaneen (2016); Villerstown (2016).

Private water schemes:

Ballyfoyle, Co. Kilkenny (2001-2003); Lyrath Estate, Kilkenny (2003); Athlone (2004); Knocktopher, Co. Kilkenny (2005); Johnstown, Co. Kilkenny, (2005), Dungarvan, Co. Waterford (2005-2007); Donacorney, Co. Meath (2006); Villerstown, Co. Waterford (2006); Ardmore, Co. Waterford (2006-2007); Kiely's Cross, Co. Waterford (2006); Enfield, Co. Meath (2006-2007); Kilmacthomas, Co. Waterford (2008); Clonmel, Co. Tipperary (2008); Glencarin Abbey, Lismore, Co. Waterford (2010-2011); Dromahane, Co. Cork (2015);

Bulmers, Clonmel (2015-2016); Killenard, Co. Laois (2016); Dromoland Castle, Co. Clare (2016); and Enfield, Co. Meath (2016).

Source Protection Assessments:

Ballyorgan GWS; Ballintubber GWS; Ballyduff GWS; Ballinmona GWS; Co. Limerick. Windgap GWS; Listerlin GWS; Co. Kilkenny. Ballydurn GWS; Mooninane GWS; Co. Waterford. Lough Mascask, Kilkenny; Glencairn, Co. Waterford; Killenard, Co. Laois; and Enfield, Co. Meath.

Aquifer tests/Pumping tests: Michael has designed, managed, and executed nearly 50 pumping tests/yield tests across Ireland, including single well and multi-well tests. One of the largest was a 3 month multi-well pumping test at a quarry in Co. Meath that subsequently received planning consent from ABP.

Environmental Impact Assessment

Landfills:

Ballealy landfill, Co. Dublin, (2000); Rampere landfill, Co. Wicklow, (2000); Powerstown landfill, Co. Carlow (2002); Garrynagree landfill, Co. Waterford (2000); Tramore landfill, Co. Waterford (2000); Youghal landfill, Co. Cork (2001); Ballyguyroe landfill, Co. Cork (2001); Carrowbrowne Landfill (2015).

Sand and gravel quarries:

Brackagh, Co. Meath, (2000); Egham, London (2003); Drumakeenan, Co. Offaly (2004); Shanahoe, Co. Laois (2008); Dunkerrin, Co. Offaly (2008); Kilmore Quay, Co. Wexford, (2008-2012); Kilcraheen, Co. Cork (2014); Clonfinlough, Co. Offaly (2016).

Bedrock quarries:

Kinnegad, Co. Meath (2000); Bay Lane, Co. Dublin, (2000); Banagher, Co. Offaly (2004–2006); Mountrath, Co. Westmeath (2005); Castletown-Finea, Co. Westmeath (2005); Killbeggan, Co. Westmeath (2006-2008); Catsrock, Mullinavat, Co. Kilkenny (2006); Ballinalee, Co. Longford, (2006); Kilough, Co. Tipperary (2008 2010); Kilemssan, Co. Meath (2010-2014); Killenaule, Co. Tipperary (2012); Lecarrow, Co. Roscommon (2014); Turlough, Co. Mayo (2015); Ardfer, Co. Kerry (2015-2016); Toonagh, Co. Clare, (2015); Kilmacow, Co. Kilkenny (2015-2016); Mallow, Co. Cork (2016).

Waste Permit/Waste Licence Applications:

Clashford, Co. Meath (2015); Kilmeague, Co. Kildare (2015-2023); Mitchelstown, Co. Meath (2016); Ballynacraaddock, Co. Waterford (2016).

Gas pipelines:

Gas Pipeline to the West, (2000); Corrib Onshore Pipeline (2003-2004; 2009-2015).

Commercial:

Pye Centre, Dundrum (2000); Lyrath Estate, Co. Kilkenny (2003); Lough Macask, Kilkenny (2006-2010); Eras Eco, Youghal, Co. Cork (2010); Ashford Castle (2014); Center Parcs (2015), Greyabbey, Kildare, (2015-2023); Foynes, Co. Limerick, (2014-2016)

Infrastructure: N18 Gort to Crusheen Road Scheme, Co. Galway and Co. Clare, October 2003.

Wind Farms: as outlined above.

Karst Hydrology and Flood Risk Assessments

Karst: Turlough water level monitoring (1998-2005); Karst flooding problem, Sligo (2000); N18 road scheme (2002-2005).

Site investigation supervision and assessment of flooding problem at New Alresford Wastewater Treatment Works, New Alresford, Winchester, for Southern Water, 2003.

Flood Risk Assessments: Condalkin (2003); Gowran, Co. Kilkenny (2003); Warrington, Co. Kilkenny, (2004); Tinnahinch, Co. Carlow, (2004); Belturbet, Co. Cavan (2005); Ballyhale, Co. Kilkenny, (2005); Crokers Hill, Kilkenny (2006); Kilkenny Rd, Carlow, (2006); Radestown, Co. Kilkenny (2008); Kells, Co. Kilkenny (2010); Swords, Co. Dublin (2010); Newport, Co. Mayo (2011); Newmarket, Co. Cork (2015); Foynes, Co. Limerick (2014-2016); Ardfert, Co. Kerry (2015); Walshestown, Mullingar (2016); Baylin, Athlone (2016); Oughterard, Co. Galway (2016); Ryeval, Leixlip, Co. Kildare (2016); Lissarada, Co. Cork (2016).

Flood Risk Assessments for Solar Developments: Ballymorris, Co. Clare (2015); Clonloghan, Co. Clare (2016); Ardfinnan, Co. Waterford (2016); Dromore, Co. Kerry (2016); Sronagh, Co. Laois (2016); Rathleague, Co. Laois (2016); Monvoy, Co. Waterford (2016); Pickardstown, Co. Waterford (2016); Firgrove, Co. Limerick (2016); Tiglin, Co. Wicklow (2016); Knockamoohane, Co. Kerry (2016); Mulkear, Co. Limerick (2016); Ballyenaghty, Co. Kerry (2016); Youngstown, Co. Wexford (2016); Lissalen Intake, Co. Waterford (2016); Porterstown, Co. Kildare (2016); Kilsallaghan, Co. Dublin (2016).

Many of the more recent EIAR projects also required preparation of a Flood Risk Assessment Sections or appended FRA reports. Some examples include:

- Lough Macask, Co. Kilkenny
- Foynes, Co. Limerick
- Cluddaun WF, Co. Mayo
- Carrickaduff WF, Co. Donegal
- Corrib Onshore Gas Pipeline, Co. Mayo
- Ardfert Quarry, Co. Kerry
- Clonreen WF, Co. Offaly

All FRAs required some or all of the following:

- Working to 2009 DoEHLG Guidelines: The Planning System and Flood Risk Guidelines
- Using statistical and deterministic methods to determine greenfield runoff rates and peak design flows
- Review and assessment of flood maps, available flooding records
- River monitoring and development of stage-discharge relationships
- Drainage assessment including capacity and network modelling
- Flood modelling / flood routing / flooding mitigation / attenuation design
- Assessment of pluvial, groundwater, coastal and fluvial flooding

Discharge Licence Applications/Reviews

Mocklershill, Co. Tipperary (2007); Abbeylands, Co. Cork (2013); Gaulstown, Co. Meath (2014); Ballinascourney, Co. Dublin (2014); Ardfert, Co. Kerry (2015); Ballinclare, Co. Wicklow (2015); Moyvalley, Co. Kildare (2016).

Landspread Assessments / Agriculture

Termon, Co. Galway (2015); Dysert, Co. Westmeath (2015); Gort, Co. Galway (2015); Corrofin, Co. Clare (2015-2016); Turner farm, Co. Wexford (2015-2016).

Expert Witness and Legal

- NI wind farm PAC Hearings: Meenablagh (2013); Lisnahaney (2015 and 2016).
- N3 Arbitration – Aignaguig Bog 2014-2015.
- Wind Farm SID applications - Oral Hearings: Oweninny (2014), Cluddaun 2014, Ardderroo (2015)
- Corrib Onshore Pipeline Oral Hearings: 2003; 2004; 2009 and 2010.
- Landfill nuisance case, private client, 2002/2003.
- Peatland flooding case, private client, 2005-2010.
- Dispute over water abstraction well, Co. Tipperary, private client, 2008.

- Wastewater treatment system, Co. Kilkenny, private client, 2005.

CPD & ADDITIONAL TRAINING

- Professional Expert Witness Training, 2-day course by Bond Solon Legal Training Ltd. Completed in Dublin, November 2002.
- Safe Pass Training, 2003. Renewed in Dungarvan in August 2008, 2012, 2016, and 2020.
- PPG 25 – Flood Risk Assessment training course. One day, Leeds, April 2003.
- Borehole & Aquifer Test Interpretation, ESI, Shrewsbury, October 2003.
- Modular SUDS training – Designing SUDS, CIRIA training Course, December 2004.
- Introduction to HEC-RAS training course – River Modelling and Flooding Assessments, JBA Consulting, Edinburgh, Scotland, March 2005.
- Site Suitability Assessment Training for On-Site Wastewater Treatment Systems – FAS Training Course, GSI Beggars Bush and Johnstown Castle Estate (EPA Headquarters), completed May/June 2005.
- An Introduction to ground source heating and cooling – professional short course by David Banks, HolyMoor Consultancy, Dunston Innovation Centre, Chesterfield, Derbyshire, UK – May 2007.
- Groundwater Source Protection Zone Delineation – Short Course run by the Geological Survey of Ireland and the Institute of Geologists of Ireland, Beggars Bush, October, 2007.
- MS Excel 2003 Advanced. Procad Training IT Skills Course, Limerick 2009.
- MS Excel 2003 VBA. Procad Training IT Skills Course, Limerick 2009.
- Conflict Management, Defensive Driving, Sea safety training, 2011 (Corrib Onshore Pipeline Project)
- Professional Geologist with IGI, 2014
- Introduction to Arbitration, Engineers Ireland, April 2015
- Prioritisation & Time Management Skills, Engineers Ireland, May 2016
- Manual handling training, 2009, 2012, 2015, 2018, 2021, and 2024
- PSDP Health & Safety training, CSME, Cork (IOSH Accredited), July 2016



MARK TIDESWELL
Senior Consultant

Discipline: Acoustics and Shadow Flicker

Key Qualifications: BSc (Hons) Music Technology, Diploma in Acoustics & Noise Control (IOA)

Professional Memberships: AMIOA

Experience: 10 years

INTRODUCTION

Mark is a Senior Consultant with over eleven years' experience working in the Environmental Consultancy sector. Mark's work focuses mainly on the technical aspects of renewable energy developments including site finding, GIS mapping services, shadow flicker, glint & glare and various types of noise assessments.

KEY EXPERIENCE

- Noise monitoring and assessment (ETSU-R-97, BS4142, BS5228)
- Noise propagation modelling
- Shadow Flicker assessment
- Glint & Glare assessment
- GIS site finding and feasibility for energy developments
- Constraints mapping
- Technical drawing and figure production

EDUCATION AND PROFESSIONAL STATUS

- BSc (Hons) Music Technology, Leeds Metropolitan University (2011)
- IOA Diploma in Acoustics and Noise Control, Leeds Metropolitan University (2015)
- Associate Member of the Institute of Acoustics (AMIOA)

EXPERIENCE RECORD

TNEI Services Ltd
2013 – 2021

Graduate Consultant - Senior Consultant

Arcus Consulting Ltd
2021 – 2023

Senior Consultant

TNEI Services Ltd
2023 – present

Senior Consultant

Mark is an experienced project manager who has worked on a large number of wind energy development projects from initial feasibility work on the sites, through to baseline assessment, impact assessment (drafting of Technical Reports and Chapters) and post submission support and compliance monitoring including complaints investigations. Project highlights include:

Onshore Renewables (Wind and Solar)

- Wind turbine compliance noise assessment on South Uist for Comhairle Nan Eilean Siar (site

- confidential).
- Spaldington Wind Farm: Noise level monitoring and reporting for wind farm construction activities.
 - Lindhurst Wind Farm: Wind farm noise compliance monitoring and assessment.
 - ZNSHINE SOLAR Site Search: Feasibility assessment to identify potential sites suitable for solar development in England through the use of geographic data.
 - Bankend Rig Wind Farm Extension: Provided GIS and mapping support for the planning application of the consented Bankend Rig Wind Farm Extension, including the production of supporting figures, plans and technical drawings.
 - Tangy IV Wind Farm: Shadow flicker assessment of proposed site for Environmental Impact Assessment, involving site survey and desk-based assessment.
 - New Rides Wind Farm: Shadow flicker assessment considering the effects of shadow flicker on a nearby prison. Work included site survey and desk-based assessment.
 - Shadow Flicker complaints investigation for an operational wind farm in Ireland (site confidential).

Electricity Networks (Substations, Overhead Lines)

- Triton Knoll Substation construction noise (HDD)
- WPD Grid Study: Digital mapping of the WPD electricity distribution grid network across the south-west of England.

New Energy Systems (BESS, Hydrogen, Electric Vehicles, District Heating, Energy from Waste)

- Hydrogen fuel cell development in Orkney: Production of GIS models and figures.
- STOR site in Lancashire: Produced GIS models and figures for three gas turbine engines.
- Feasibility studies for large scale STOR sites for up to 50MWe of generators/engines.

Conventional Energy (Gas, Nuclear, Coal)

- Rumer Hill Gas Peaking Plant: Baseline noise monitoring and BS4142 assessment for the operation of externally located gas powered engine/generator sets.
- Fellside CHP Plant: Noise assessment of works at gas turbine power plant.

Other

- Newcastle Great Park: Production of noise propagation models and noise mapping of a large housing development in Newcastle in order to assess the potential impacts of road and aircraft noise.



Faolán Ly
Graduate Consultant

Disciplines: Acoustics, Shadow Flicker, GIS

Key Qualifications: BSc Physics

Professional Memberships: Affiliate Member of the IOA

Experience: 6 months

INTRODUCTION

Faolán is a Graduate Consultant within the Environment and Engineering team at TNEI. Before joining TNEI, Faolán had developed a good understanding of acoustics and a strong foundation in analytical problem solving, computational skills and data analysis through his degree in Experimental Physics. Faolán has worked on a variety of operational noise assessments for wind farms around Ireland.

KEY EXPERIENCE

- ETSU-R-97/WEDG Noise assessment
- Noise surveys and site work
- Modelling software: WindPro, CadnaA, GIS
- Python and data analysis
- Noise propagation modelling
- Industrial and construction noise assessment
- Shadow flicker assessments

EDUCATION AND PROFESSIONAL STATUS

- BSc. Physics, University College Dublin (2024)
- Affiliate Member of the Institute of Acoustics (IOA)

EXPERIENCE RECORD

TNEI (2024 - present)

Graduate Consultant

ONSHORE ENERGY GENERATION Experience on a variety of onshore wind farm noise assessments including pre-planning and operational schemes. From baseline assessment, modelling, data analysis, work on-site, through to impact assessment (drafting of Technical Reports and EIA Reports).

Project highlights:

- ETSU-R-97/WEDG Assessment - involvement in ETSU-R-97 / WEDG assessments for a number of sites across Ireland;
- Background noise monitoring in accordance with ETSU-R-97;
- Data analysis of noise, meteorological, and SCADA data;
- Shadow flicker assessment;
- Drafting of noise and shadow flicker chapters of an EIAR and technical report;
- Noise Compliance monitoring and complaints investigation for sites across Ireland;
- Initial cumulative review of operational and proposed schemes in the area for proposed wind farms; and
- Technical assessments - support in relation to GIS and shadow flicker.

ENERGY STORAGE Experience in site survey work and noise impact assessments for BESS projects.

Project highlights:

- Project support for BESS noise assessments;
- Noise propagation modelling;
- Tonal noise assessments;
- Inputted/drafted BS 4142 assessments reports for projects located in the UK and Ireland;
- Detailed data analysis of meteorological, noise, and operational BESS data.



CURRICULUM VITAE

CIAN DOUGHAN

ASSOCIATE DIRECTOR - LANDSCAPE ARCHITECT

BSC LANDSCAPE ARCHITECTURE

MILI

PERSONAL PROFILE

Cian is an honours graduate in Landscape Architecture from University College Dublin and is based in Dublin, Ireland. His primary area of expertise lies in landscape planning, with a particular focus on Landscape and Visual Impact Assessment (LVIA). He has extensive experience contributing to major infrastructure and renewable energy projects, including strategic water supply schemes, Strategic Infrastructure Development (SID) wind farms, and over 200 solar farm applications. Cian has been involved in a number of high-profile projects, including the Scart Mountain, Cloghercor and Ballinagree SID Wind Farms, as well as numerous large-scale solar developments. His portfolio also includes linear infrastructure projects such as greenways and road schemes, feasibility assessments for onshore wind energy developments, and contributions to the Draft Landscape Design Guidelines for Irish Water.

EDUCATIONAL AND PROFESSIONAL STATUS

- BSc, Landscape Architecture, University College Dublin (UCD).
- MILI – Member of the Irish Landscape Institute

EMPLOYMENT HISTORY

- 2023 to present – Associate Director, Landscape Architect, Macro Works Ltd
- 2016 to 2023 – Landscape Architect, Macro Works Ltd
- 2017 – 2018 – Landscape Architect, Hollander Design New York

SELECTED RECENT PROJECT EXAMPLES

Rosslare Port - Offshore Renewable Energy Hub (2025). A reclamation and port extension including buildings, quays and infrastructure.

Scart Mountain SID Wind Farm, Future Energy (2024). An SID Wind Farm development comprising 15 no. turbines rising to a maximum height of up to 185m, a 110kV substation and ancillary infrastructure, located along the eastern foothills of the Knockmealdown Mountains in County Waterford.

Ballinagree SID Wind Farm, Orsted/FEI (2022). An SID Wind Farm development comprising 20 no. turbines rising to a maximum height of 185m, a 110kV substation and ancillary infrastructure located in the Boggeragh Mountains in County Cork.

Rathcoursey Solar Farm and SID substation, Terra Solar (2023). A 126ha solar farm development comprising 5 parcels and served by a new 110kV substation, located along rolling agricultural lands in northeast Cork, north of Cork Harbour.

St. Kevins Hospital SHD, Land Development Agency (2021). A residential development on a 5.7 ha site on lands located 2.5km west of Cork City Centre on a prominent south-facing hillside site, the former St. Kevin's Hospital and grounds, Shanakiel, Cork.

200+ Solar Energy Projects, various developers. Feasibility, LVIA, Landscape Strategies, Glint and Glare Assessments, Further Information Requests and Appeal responses.

30+ Wind Energy Projects, various private and semi-state developers. Feasibility, Design Optimisation, LVIA, Further Information Requests and Appeal Responses.



CURRICULUM VITAE

RICHARD BARKER

DIVISIONAL DIRECTOR - LANDSCAPE ARCHITECT

MLA, BA ENV, PG DIP FOR, MILI

PERSONAL PROFILE

Richard formerly worked as a Town Planner in New Zealand, London and Dublin before moving into the field of Landscape Architecture. He has spent the last 20 years working as a Landscape Architect in Ireland and has considerable experience in the fields of both Landscape and Visual Impact Assessment (LVIA) and landscape design, covering all stages from project feasibility through to construction. This cross-over of expertise is invaluable in determining and designing the most appropriate and effective form of landscape and visual mitigation for infrastructural development projects. Richard is the Divisional Director in Macro Works (part of APEM Group), a specialist LVIA consultancy that undertakes assessments for a broad spectrum of projects from wind and solar energy, to roads and large scale industrial and infrastructural development. Richard has personally completed the landscape and visual assessment of over 150 wind farms and a similar number of solar farms as well as numerous other commercial and infrastructural projects including more than a dozen SID projects. Consequently, he has considerable oral hearing training and expert witness experience. Richard has presented several conference papers relating to sustainable landscape design and LVIA as well as delivering the inaugural workshop on the landscape and visual effects of wind energy developments on behalf of the Irish Wind Energy Association. He has also delivered guest lectures / Webinars to the University College Dublin professional course in EIA Management and the Irish Landscape Institute and An Bord Pleanála in relation to LVIA.

EDUCATIONAL AND PROFESSIONAL STATUS

- MLA, Lincoln University (2003).
- PG Diploma, Forestry, Canterbury University (1996).
- BA, Environmental Science, Massey University (1995).

EMPLOYMENT HISTORY

- 1998 – 1999 Marlborough District Council (NZ) – Resource Planner
- 1999 – 2000 The Environment Agency (UK) – Planning Liaison Officer
- 2000 – 2001 Harrow Borough Council – Town Planner
- 2001 – 2002 CAAS Environmental (Dublin) - Planner
- 2004 – 2008 Tiros Environmental (Dublin) – Landscape Architect
- 2008 – 2014 MosArt (Wicklow) - Senior Landscape Architect / Associate Director
- 2014 – 2024 Macro Works (Dublin) – Managing Director / Divisional Director

FURTHER EXPERIENCE

- Corporate Member of the Irish Landscape Institute

SELECTED RECENT PROJECT EXAMPLES

150+ Wind Energy Projects (10 SID), various private and semi-state developers. Feasibility, LVIA and oral hearings.

150+ Solar Energy Projects, various developers. Feasibility, LVIA, Glint and Glare Assessments.

Celtic Interconnector, Mott McDonald. LVIA for strategic undersea and terrestrial electrical cable between France and Ireland.

St Kevin's Hospital SHD, Land Development Agency. LVIA with associated Photomontages / CGIs for a Strategic Housing Development incorporating the restoration of a landmark heritage building in Cork City.

Greater Dublin Drainage Scheme, Irish Water. MCA analysis of site options then LVIA for a 20ha sewage treatment facility, pipeline routes, pumping stations, plus oral hearing.

Water Supply Project Midlands and Eastern Region, Irish Water. MCA analysis of abstraction options and pipeline routes and LVIA of selected option.

College Green Plaza, ARUP / Dublin City Co. Full LVIA for proposed pedestrian plaza in Dublin's City Centre at College Green.

South Kerry Greenway, Fehily Timoney / Kerry CoCo. LVIA and oral hearing for a Cycleway along former railway line, plus oral hearing.

Rossaveel Deep Water Pier, Rossaveel Port Co. SLVIA for new port-based coastal infrastructure in a high sensitivity landscape / seascape environment.

Bryn Cefni Biomass Plant, Ecopellets. LVIA for a large biomass facility in Llangefni, Wales plus planning enquiry.

N59 Moycullen Bypass Road Project, NRDO. Route options appraisal and LVIA for selected route plus oral hearing.

N59 Clifden to Maam Cross Road Project, NRDO. Route options appraisal and LVIA for selected route plus oral hearing.

Kevin Hayes CV

Qualifications

- B.Eng Hons. in Electronic & Communications Engineer,
- M. Eng. Hons in Communications & Software Engineering

Position

Engineering Director

Email

khayes@aibridges.ie

Experience

Kevin works with Ai Bridges who have been supplying telecommunications and aviation assessment solutions to the wind farm industry throughout the Republic of Ireland, Northern Ireland and the UK since 2007. The Ai Bridges Engineering Department has in excess of 200 plus years of experience in the delivery of Aviation, Telecommunications\EMI, Broadcast & EMF\EMC projects.

Kevin Hayes is the Engineering Director at Ai Bridges and takes the role of Client Relationship Manager responsible for overseeing project progress and deliverables for the Telecommunications and Aviation Impact Assessments. This also includes responsibility, along with other team members, for day-to-day running of the projects including co-ordination of project teams and achieving agreed milestones.

Kevin is a qualified engineer and B.Eng Hons. in Electronic & Communications Engineer, M. Eng. Hons in Communications & Software Engineering. Kevin has gained extensive experience in the areas of Telecommunications network design, deployment and implementation roles of telecommunications systems over a 32-year period. He has extensive working knowledge of software modelling and radio planning of telecommunications and aviation networks and systems. This includes taking the lead R&D role in developing the Ai Bridges 3D modelling software techniques used to predict wind farm and solar park interference impacts on telecommunications, broadcast and aviation infrastructure networks.

Bill Brazier B.Sc. (Hons) MIFM

Aquatic ecologist – Triturus Environmental Ltd.

b.brazier@hotmail.com

086-3758585

<https://www.linkedin.com/in/bill-brazier/>



Biography

Bill is an aquatic ecologist with 10 years' professional experience in Ireland. He specialises in freshwater fisheries ecology, biology and water quality. He has considerable experience in a wide range of ecological and environmental projects including EIAR, EcIA and AA/NIS reporting, as well as biodiversity, invasive species and fisheries management. His diverse project list includes work on wind farm developments, flood relief schemes, road schemes, blueways/greenways and biodiversity projects.

He is currently completing his Ph.D. on the genetics, reproductive biology and invasive potential impact of common carp (*Cyprinus carpio*) in Irish waters. Additionally, Bill runs the highly respected Off the Scale magazine, Ireland's biggest and most read recreational angling publication and is the national coordinator for the novel Anglers National Line Recycling Scheme (ANLRS).

Qualifications

- B.Sc. (Hons) Applied Freshwater & Marine Biology, Galway-Mayo IT (2006-2010) (1.1)
- Ph.D. fish ecology & genetics (final year deferred), University College Cork (2010-present)

Professional affiliations

- Registered member Institute of Fisheries Management (MIFM)

Employment history

- 2010 - Marine Institute Archival Data Analyst bursar
- 2011 – 2018 – Freelance ecological consultant
- April 2019 – present – Aquatic ecologist, Triturus Environmental Ltd.

Key skills and assets

- EIAR, EcIA, AA, NIS
- Fisheries assessments & management
- Ecological Clerk of Works
- Biological water quality (Q-sampling, SSRS)
- Habitat mapping
- Ecological design and habitat creation
- RHAT, RHS, RCS, LHS, PSYM, HSI
- Invasive species
- Otter surveys (including Human Disturbance Index)
- Protected species (white-clawed crayfish, amphibians, mammals, macrophytes)
- Biodiversity enhancement & community engagement
- ISA National Powerboat Handling Certificate (Level 2)
- Certificate in Personal Sea Survival Techniques
- GIS, bathymetric mapping
- Graphic/web design and digital/print publication (Adobe InDesign, Illustrator, Photoshop, Lightroom, Premiere Pro)

Selected project experience

Lake and river habitat

Páirc na Mara Marine Innovation Park, 2018-2020 (client: Ryan Hanley/ Údarás na Gaeltachta)

Preparation and management of Biodiversity & Water Quality Chapter for EIAR report. The project involved fresh water abstraction from the Lough Skannive catchment, Co. Galway and the development of a marine innovation park. Extensive baseline surveys were completed including catchment-wide electro-fishing, Arctic charr netting and spawning surveys, physiochemical water quality including Q-sampling, lake macro-invertebrates, detailed lake habitat surveys including macrophytes and classification of Annex I oligotrophic isoetid lake habitat (3110). The baseline surveys were conducted in 4 lake basins and in multiple feeder rivers. The baseline data compiled informed the preparation of a very detailed Environmental Impact Assessment report that involved a multidisciplinary approach. It included the application of water balance modelling according to UKTAG thresholds relative to the identified aquatic sensitivities. This ensured Water Framework Directive compliance in adherence to a detailed schedule of environmental commitments.

Loch an Mhuilinn water abstraction, 2017 (client: Ryan Hanley)

Detailed bathymetric study of Loch an Mhuilinn, Co. Galway to inform fresh water abstraction, in addition to aerial drone surveys. Surveys were undertaken using state of the art hardware and software, RTK-enabled Trimble GPS, Lowrance SONAR, Ebee Sensee Fixed Wing Drone and Reefmaster Software. The Annex I littoral habitat 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) was characterised with over 20 species of macrophyte plants records including *Nitella flexillis* and *Elatine hydropiper*. Lacustrine littoral salmonid spawning areas were identified and a comprehensive report was prepared.

Dublin City otter survey, 2018-2020 (client: Ryan Hanley)

Completed the largest survey of urban otter populations in Ireland to date and prepared a comprehensive report with a large focus on management and conservation. The lower reaches of over 20 watercourses within Dublin City were surveyed for otter signs, with a particular emphasis on quantifying and mapping otter habitat. RHAT methodology was used to classify and map otter habitat quality along 500m sections of each watercourse. Novel methodology (the Human Disturbance Index, HDI) was developed by Triturus and used to detect relative levels of human disturbance/encroachment on riparian areas and the relative effects on otter sign distribution. The study identified an important link between riparian seclusion and otter breeding areas, greatly informing future management in Dublin City and improving knowledge of urban otter populations.

Water quality

Kilbarry Bog landfill, 2018-2020 (client: Ecosystem Services)

Detailed physiochemical and biological water quality analysis (Q-sampling) in addition to macrophyte surveys were undertaken to inform the preparation of the aquatic elements of Annual Environmental reporting. This included physiochemical and biological water quality sampling of 10 no. riverine sites in addition to 3 no. habitat compensation pond habitats (including PSYM methodology to assess ecological quality).

Timahoe solar farm, Co. Offaly, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling) in addition to fisheries, otter and white-clawed crayfish surveys, was undertaken the catchment of the proposed Timahoe solar farm, Co. Offaly to inform EIAR preparation.

Castlewaller wind farm, Co. Limerick, 2019 (client: Fehily Timoney)

Baseline physiochemical and biological water quality sampling (Q-sampling, 12 sites) in addition to catchment-wide electro-fishing and white-clawed crayfish surveys, was undertaken along a proposed cable route in the catchment of the proposed Castlewaller wind farm, Co. Limerick to inform EIAR preparation.

Derrinlough wind farm, Co. Offaly, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling) in addition to a fisheries habitat assessment, was undertaken in the catchment of the proposed Derrinlough wind farm, Co. Offaly to inform EIAR preparation.

Croagh wind farm, Co. Leitrim, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling, 13 sites) in addition to catchment-wide electro-fishing was undertaken along a proposed cable route in the catchment of the proposed Castlewaller wind farm, Co. Leitrim to inform EIAR preparation.

Croaghaun wind farm, Co. Carlow, 2019 (client: Fehily Timoney)

Baseline biological water quality sampling (Q-sampling, 21 sites) in addition to catchment-wide electro-fishing was undertaken in the catchment of the proposed Croaghaun wind farm, Co. Carlow to inform EIAR preparation.

Knockharley landfill, 2019 (client: Fehily Timoney)

Baseline physiochemical and biological water quality sampling (Q-sampling & SSRS), RHAT scores and electro-fishing was undertaken in the catchment of Knockharley Landfill to inform EIAR preparation.

Small Streams Risk Score (SSRS) training, 20xx (client: Waterford County Council)

Undertook training of environmental staff from Waterford County Council on the use of the riverine invertebrates as a bio-indicator of pollution risk for small catchments using SSRS, the second most prominent biological indicator system used in Ireland after the Q-sampling system.

Fisheries

Croaghaun wind farm, Co. Carlow, 2019 (client: Fehily Timoney)

Catchment-wide electro-fishing (24 sites) and white-clawed crayfish surveys were undertaken in the catchment of Croaghaun wind farm, Co. Carlow to inform EIAR preparation.

Ballynacarrig River rehabilitation project, Co. Offaly, 2019 (client: LAWPRO)

Undertook a baseline aquatic assessment of the Ballynacarrig River (Silver River tributary) that included an assessment of fisheries (electro-fishing), biological and physiochemical water quality, and macrophytes. A detailed river management plan was prepared to help LAWPRO enhance the water quality and fisheries value as part of the Environmental River Enhancement Fund (EREP), as a designated 'Area For Action' within the wider catchment.

Owenacurra (Midleton) Flood Relief Scheme, 2018-2019 (client: Arup)

Conducted a catchment-wide electro-fishing survey in the Owenacurra and Dungourney River systems to establish a baseline of lamprey, salmonid and eel populations. Utilised a fixed-wing drone and RHAT surveys to establish the most pristine areas of channel pre-construction works and conducted detailed redd counting surveys and substrate assessments for sea trout and Atlantic salmon populations in the catchment.

River Barrow weirs fisheries survey, 2018 (client: McCarthy Keville O' Sullivan & Waterways Ireland)

Conducted an electro-fishing survey of three large weir sites on the River Barrow and prepared a detailed fisheries report on the conservation objective fish species found in the River Barrow and River Nore SAC. Used a 3m-RIB and bathymetric software to profile the sediment classes in order to establish the distribution of soft lamprey ammocoete habitat relative to proposed weir upgrade works and identified fisheries constraints based on the proposals.

Sea Lamprey *Petromyzon marinus* spawning survey, Lower Mulkear River, 2018 (client: IDA & Fehily Timoney)

Undertook a sea lamprey spawning survey of the Lower Mulkear River, Co. Limerick used a fixed-wing drone and infrared imagery to detect sea lamprey redds. Redd sites were validated on the ground using an RTK-enabled Trimble GPS and a correction factor was developed based on the accuracy of detection by the drone relative to data collected in the field. The project successfully established the most important zones of the river used by spawning lamprey with over 50 redds detected. This was the first time an aerial drone had been used to map sea lamprey redds in Ireland.

Macrophytes

Lough Skannive water abstraction, Carna (client: Ryan Hanley)

Conducted a detailed lake habitat survey of the macrophyte community of a 50-hectare lake using transects. This helped profile vegetation corresponding to the Annex I 3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) and informed EIA preparation.

Killaloe Canal Greenway, Co. Clare, 2019 (client: MKO).

Conducted detailed macrophyte, invasive species and fisheries surveys to inform an Ecological Impact Assessment (EIA) for a proposed Blueway development in Killaloe.

Opposite-leaved pondweed (*Groenlandia densa*) management plan, 2018 (client: Fehily Timoney)

Undertook an opposite-leaved pondweed survey of the Loughmore Canal, Co. Limerick through a full macrophyte plant audit of the canal. A detailed management plan was prepared in light of proposed flood alleviation works

Floating river vegetation survey of the Lower River Lee, Co. Cork, 2015 (client: Ryan Hanley & OPW)

Conducted a detailed study of the distribution of floating river vegetation in the Lower River Lee between Inniscarra Dam and Cork City Centre. Transect and underwater dive surveys were undertaken using random replicated blocks. The distribution and cover of *Ranunculus*, *Potamogeton*, *Callitriche* and moss species was estimated and distribution maps compiled. It represented one of the most detailed studies in the south of Ireland on the Annex I habitat (3260) Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation.

CURRICULUM VITAE

Adrian Allen,
Ballinaboley,
Kilmacow,
Via Waterford,
X91N8Y1
TEL: 083-8888428
Email: aallenelec@gmail.com

EDUCATIONAL HISTORY:

2023: Botanical Society of Britain and Ireland identiplant course completed

2023: CIEEM technical writing course completed

2020 - 2022: BSc (Level 8) in Environmental Management Sligo IT completed.

2022: Flower Identification Course Sligo IT (Level 6)

2018: Ten-day mechanical/electrical course for electrical technicians.

2014 – 2016: Completed BSc (Hons) in manufacturing engineering W.I.T (Level 8)

2013: Supervisory skills course completed (Fetac level 6)

2012 -- 2014: Bachelor of engineering ordinary degree in Manufacturing Engineering W.I.T (Level 7)

2011 – 2012: Higher Certificate in Manufacturing Engineering W.I.T. (Level 6)

1998: Senior Trades (Electrician) Examinations Passed

RELEVANT EXPERIENCE:

2022 - present: Qualifying member of CIEEM and member of BSBI

2022 - 2024: Member of pilot pollinator monitoring scheme run annually, where I am responsible for pan trap sampling of insects, floral assessments, transect counts of the main pollinator groups (butterflies, bumblebees, solitary bees and hoverflies) and Flower-Insect timed counts. This information is entered into databases for analysis

2022: Received training with a forestry management company on completing Appropriate Assessments and Natura Impact Statements for afforestation projects, which included habitat mapping and basic QGIS training

2022: One day habitat training course run by Department of Agriculture, Fisheries and the Marine.

2022: Assisted in cannon netting of Brent Geese to fit colour rings and GPS locators to track migration patterns between wintering grounds in Waterford and breeding areas in Greenland

2020: Member of a team carrying out cannon netting to catch grey plover for the purpose of fitting GPS tags to monitor their movement around Dungarvan Bay. This was in relation to proposed applications for new oyster beds in the area.

2017: Qualified as a “C” permit bird ringer under licence with the BTO and NPWS. The procedure of ringing and processing a bird involves recording various biometric data such as wing length, weight, moult and fat/muscle score. All this data must be manually entered onto an online database.

2016: Jews gate bird observatory, Gibraltar. Assisted at the observatory for a week ringing migrant birds and counting migrating raptors.

2015 + 2018: Canal Vell ringing station, Ebro Delta, Spain. Multiple visits to the station ringing birds and monitoring populations such as flamingos, ibis, herons, egrets and harriers on the lagoon.

2011: Assisted with tagging and release of White-tailed eagles for re-introduction project in Killarney.

1995 – present: Completed numerous I-Webs and breeding bird surveys in Co. Waterford.

EMPLOYMENT:

November 2020 – Present

Position: Consultant Ornithologist/Ecologist (Self-employed)

Responsibilities:

- Primarily concerned with ornithological surveys for proposed windfarm sites
- Hinterland Surveys using a radius of approximately 10km from proposed turbine site to count species which may be potentially affected by the development
- Breeding raptor surveys within 2km of proposed development
- Viewpoint surveys based on Scottish National Heritage methodology which monitor flightlines and heights of bird species in the area where proposed turbines will be built
- Onsite surveys to count breeding and wintering birds present using the transect method such as Birdwatch Ireland countryside bird survey methodology.
- Adapted Brown and Shepherd surveys for waders.
- Species specific surveys for rare breeders such as woodcock, hen harrier, barn owl, and merlin
- Documentation of all surveys and results sent monthly to Environmental Consultants.
- Completion of AA and NIS reports for afforestation projects. This includes conducting mammal surveys, mapping habitats and displaying the results using QGIS and completion of reports to screen in or out Natura 2000 sites including mitigation measures to preserve any habitats or species present as set out in annex 1 and 2 of the habitats directive.

- Carrying out bat transect and emergence surveys for proposed residential, commercial and industrial developments following the Bat Conservation Trust “Bat surveys for professional ecologists” good practice guidelines.

April 2017-Present: Bausch and Lomb

Position: Maintenance Technician

Responsibilities:

- Responsible for the repair and maintenance of all machinery in my area including sanitization of de-ionized water units and calibration of various temperature controllers in accordance with FDA regulations.
- A lot of tasks need to be carried out using standard operating procedures to ensure efficiency and uniformity

September 2008-April 2017 Mima Films Ltd.

Position: Maintenance Technician/Assistant Maintenance Manager

Responsibilities:

- Responsible for the repair and preventative maintenance of all machinery throughout plant, including the writing up of new PM procedures and updating previous procedures.
- Provide cover for maintenance manager, which involves attending daily production meetings, delegating work to maintenance personnel, ordering spare parts from suppliers and dealing with breakdown issues as they arise. In the past this has included cover during a shutdown period where numerous external contractors were on site.
- Upgrade machines to ensure reliable performance and better productivity. This task includes processing completed work request sheets to find any recurring problems then address the issue to improve machine performance.
- Calibrate equipment throughout plant including temperature controllers, load cells and length counters.
- Responsible for the design and installation of several electrical projects for the re-positioning of current machinery and the installation of several new machines. These duties included planning the installation, ordering all parts required, hiring contractors to carry out the task and ensuring all work is carried out in accordance with current regulations. Once the installations were completed, I liaised with machine manufacturers to validate machinery and carry out any debugging issues which arose during startup.
- Some projects I have been involved with include complete changeover of all light fittings in factory to LED type, installation of an energy management system to monitor high loads and assess possibilities of upgrading these loads. One such project underway is the upgrade of chiller room pumps from star/delta starting system to variable speed drives.

PERSONAL PROFILE:

I have worked in different industries with a diverse range of people. Some situations have called for me to work as part of a team to make collective decisions and others have seen me work alone where I must decide the best course of action without input from others. Either way I can deal with these situations. I see problems as a puzzle which can be broken down to smaller parts to find the best solution. I like to learn new skills from others and in turn improve their skills with my knowledge. Throughout my life and career, I have been subjected to physically and mentally challenging tasks, some of which have been quite stressful. But I have never backed away from these challenges and have seen these situations through to the end.

INTERESTS:

My main hobbies are bird ringing and bird watching, but generally I enjoy being outside recording biodiversity

REFEREES:

Available on Request.

Signed: Adrian Allen

Date: 9th December 2025

CONTACT NATURE

Brian Porter contactnatureire@gmail.com 0872230004
4 Kent Terrace, Barnhill Road, Dalkey, Co. Dublin

General ornithological experience and expertise:

2001 - present Wildlife Consultancy 'Contact Nature'

Birdwatch Ireland Member 1975 to present

Member of Irish Raptor Study Group

Active Birdwatcher in Ireland, Europe and Tropics

Ornithological survey experience & Main ornithological competencies:

Diploma Field Ecology 2005 – Distinction

2001 - present Wildlife Consultancy 'Contact Nature'

Contracts as 'Contact Nature' Include:

-**Hen harrier surveys** largely using SNH methodology within 16 counties in Ireland for private contractors and for all the major windfarm developers. Surveys both in the Republic and in Northern Ireland include collating data for Collision Risk Modelling.

For Coillte and NPWS hen harrier territory surveys in hill ranges of highest hen harrier densities and SPA's from Cork to Donegal.

For Coillte – identifying Hen Harrier occupancy in their Red Zones during the breeding season within Hen Harrier SPA's in County's Limerick, Kerry, Cork and Tipperary.

-Several bird survey methodologies specially adapted and applied to large scale proposed **wind farm, cable route and power line developments** in bog, forestry and agricultural lowlands within five midland counties and uplands of Donegal Including: Winter Dawn & Dusk fixed Vantage Point Survey, modified Brown & Sheppard Survey, Breeding Wader Surveys, Merlin & Barn Owl Surveys, Phase 1 Habitat Surveys, Hedgerow Structure Survey, Mammal Surveys, Swan & Goose Flight Line Surveys and small aircraft flyover swan survey.

-**Countryside Bird Surveys** for BWI since 1998 and private contractors on Landfill and Windfarm sites

-Wildfowl, Red Grouse, Wader and raptor monitoring along Power line route for ESBI

Extensive contributor to each National Hen Harrier Surveys 1998/2000; 2005; 2010 & 2015

PUBLICATIONS

Co-author of scientific papers published in Birdwatch Ireland annual publication 'Irish Birds' including

- **Brian Madden and Brian Porter (2007).** Do wind turbines displace Hen Harriers *Circus cyaneus* from foraging habitat? Preliminary results of a case study at the Derrybrien Wind Farm, County Galway. Irish Birds Volume 8 No.2

Any previous experience from the particular sites/areas in question:

Whilst working for MWP since April 2018 to date at Castlebanny and during January 2019 only at Deepark

Any relevant qualifications:

Diploma Field Ecology 2005 – Distinction

CURRICULUM VITAE

Gyr John Penn

Curraghafoil

Doon

Co Limerick

DATE OF BIRTH

21st December 1960

EDUCATION

1974-1979

Thurston Upper School

‘O’ Levels:

Biology, Chemistry, Physics,
Mathematics, History, Art, English
Language, English Literature.

‘A’ Levels:

Biology, Art, NPTC ARB.

PREVIOUS EMPLOYMENT:

April 2004- present

Ornithological Consultant / Research Fieldworker

Clients: National Parks and Wildlife,
National Windpower, Airtricity,
Biosphere. Fehily Timoney, SSE,

Sept 1987

Own Countryside management Business: Tree Surgery, Fencing, Planting, Nature Reserve and Park Maintenance

Clients: West Suffolk County Council,
Forest Heath District Council,
Mid Suffolk Highways Dept,
St Edmundsbury Town Council.
Southern Tree surgeons, Coillte

Jan 1987

Tree surgeon, Breckland Tree Services.

Sept 1986

Panel Operator British Sugar Corporation

April 1986

Travelled to Australia and Papua
New Guinea for five months

Jan 1986

Grounds man Breckland Tree Services

Jan 1985	Excavator Operator, RMC, Lackford Quarry
Sept 1984	Excavator Operator British Sugar Corp
April 1984	Species Protection Warden, Royal Society for the Protection of Birds Goshawks, Red Backed Shrikes, Stone Curlews, Golden Orioles
Sept 1983	Excavator Operator, British Sugar Corporation
April 1983	Contract Warden, Royal Society for the Protection of Birds Coombes Valley Common Bird Surveys, Butterfly Surveys, Reserve maintenance
Sept 1982	Excavator Operator British Sugar Corporation
March 1982	Contract Warden, Royal Society for the Protection of Birds Bempton Cliffs Sea Bird Censusing
Sept 1981	Process Worker British Sugar Corporation
March 1981	Contract Warden, Royal Society for the Protection of Birds Bramshot Farm
June 1979	Agricultural worker
Sept 1978	Voluntary Warden, Royal Society for the Protection of Birds
July 1978	Trainee Taxidermist, Norwich Castle Museum

Relevant Experience:

Gyr Penn's childhood was spent in rural Suffolk, England, where from an early age he developed an interest in studying wildlife. After gaining 'A' levels in Biology and Art at Thurston Upper School, Bury St Edmunds England, he left school at eighteen and trained as a taxidermist at Norwich Castle Museum, becoming a member of the Guild of Taxidermists.

He then worked for the Royal Society for the Protection of Birds for four years as a warden at Bramshot Farm in Surrey, Bempton Cliffs in Yorkshire and Coombes Valley in Staffordshire and then as a species protection officer in the Norfolk Brecklands. As a warden he gained valuable experience of census work on common birds, sea birds and waders. As a species protection officer he specialised in surveillance of rare birds (Goshawk, Red Backed Shrike, Stone Curlew and Golden Oriole).

He left the RSPB to set up his own countryside management and tree surgery business, working for various conservation bodies (RSPB, local wildlife trusts and county councils), which he ran for ten years.

He moved to Ireland in 1997 and is currently employed as an ornithological consultant, working for National Parks and Wildlife, Birdwatch Ireland, UCC and private consultants.

He is a member of the Irish raptor study group and regularly leads outings for the Limerick branch of Birdwatch Ireland. He is also a bird watching guide for Adare Manor Hotel.

He has been studying the Hen Harrier population of the Slieve Felim/Hollyford hills area for past 20 years. In 2003 he wrote a report to the Royal Irish Academy on the status of the hen harrier in the Slieve Felim/Hollyford hills.

Contact details: Gyr Penn, Curraghafoile, Doon, Co Limerick.
Telephone: 062 78316, mobile 086 7305146
Email: gyrpen@gmail.com

Kevin P. Collins BSc.

Ballygambon,
Lisronagh,
Clonmel, Co. Tipperary
Phone Number 087-2373090
E-mail Address kevincollins062@gmail.com

Education

Certificate in Field Ecology. 1994 – 1996 University College Cork

BSc. Open University

Relevant Experience

I have worked with Ecofact Environmental Consultants, as a sub-contractor, on breeding and winter bird surveys for developments such as wind farms in Monaghan, Offaly, Laois, Cork, Kerry and Wicklow over the past 13 years. These surveys involved vantage point watches especially for Hen Harriers and flight path and collision risk assessments for Whooper Swans and Greenland-White-fronted Geese. I have carried out bird surveys on roads projects on the N11 in Wexford, the N4 in Sligo and the R624 in Cobh.

I worked for BirdWatch Ireland on the Breeding Curlew Survey in 2015, and I worked on the Breeding Curlew Survey in 2021.

I have carried out VP, transect and hinterland surveys for Fehily Timoney at a proposed wind farm in Tipperary in 2020-21. I carried out a breeding bird survey at a quarry in Limerick in 2021 for Brady Shipman Martin.

I was a director on the board of BirdWatch Ireland for three years up to 1998. At that time I was on the technical steering group which set up the Countryside Bird Survey. I have surveyed 2 one kilometre squares for the Countryside Bird Survey since 1998 and 3 one km squares since 2009.

I have also surveyed 4 sites in Co. Tipperary for IWeBs since 1995/96. I am the regional organiser for IWeBS in Co. Tipperary.

I have organised single species surveys for Yellowhammer, Grey Heron and Nightjar in Co. Tipperary.

I have taken part in the last two breeding atlases 1988-91 and 2007-2011 (being the regional organizer and validator for Co. Tipperary), Whooper & Bewick's Swan, Peregrine, Hen Harrier and Barn Owl surveys and the non-estuarine waterbird survey.

Qualifications

I am a fully qualified bird ringer with an 'A' permit from the British Trust for Ornithology since 1992 and an annual licence from NPWS. I have the necessary skills to trap and ring, identify all wild birds in Ireland (except those on schedule II of the Wildlife Act, 1976, while they are on the nest). I have fitted wing-tags and satellite tags on Hen Harrier and Golden Eagle chicks.

Other Experience

I was the secretary of the Irish Raptor Study Group 2002 to 2008. I was a Director of the Golden Eagle Trust and I was on the steering group of the White-tailed Eagle reintroduction Project.



LORRAINE BENSON

Environmental Impact Assessment, Monitoring and Fieldwork

Dublin Rd, Naas, Co Kildare W91 VP8E. Ireland

Call/text 087 2486284

bensonecology@gmail.com

<https://twitter.com/lbcilldara>

Relevant Qualifications and Skills

- Masters in Applied Environmental Science, **UCD**, 2009.
- Appropriate Assessment and GIS with **National Biodiversity Data Centre Co Waterford**, 2018
- Member of the **Irish Rare Birds Committee** (2018 - 2019)
- Licenced Bird Ringer from the **British Trust for Ornithology** and the **National Parks and Wildlife Service** since 2005.
- Safe Pass and Public liability insurance held

Environmental Impact Assessments, ECoW and Survey Experience

July 2021 ongoing Ecological Clerk of Works on contract to **Fehily Timoney Co** for *Greenway* Projects.

April 2019 -2021 Senior Ornithologist on contract with **Tobin Engineers** for the proposed *Irish Water* route, Shannon to Dublin.

September 2019 to February 2020 Senior Ornithologist on contract to **Woodrow Sustainable Solutions**, Sligo for wetland and raptor surveys on proposed windfarm sites in the Midlands and North West.

August-October 2019 Senior Ornithologist and Assistant Warden at Alderney Bird Observatory, Channel Islands responsible for bird ringing, daily bird census, surveys and migration monitoring of land, sea and shore birds.

March-April 2019 Author, Appropriate Assessment Screening for **O'Connor Sutton Cronin Engineers** at Ballymahon on behalf of *Longford County Council Roads Department*.

2014-2021 with Dr Geoff Oliver for **Jennings O Donovan** and *Energia* Hen Harrier hinterland surveys and winter roost sites on Windfarm sites pre- and post- construction, vantage point and breeding bird surveys in Co Donegal

2014-2021 Ornithologist on contract with Fehily Timoney Co. Engineers for bird surveys, Co Cork, Co Tipperary, Co Laois, Co Offaly and Co Kildare.

2015, 2018, 2021 March-June National *Merlin and Hen Harrier Survey*, surveyor in the Slieve Aughties, Co Galway for NPWS.

2010-2011 Advice to *National Parks and Wildlife Service* and South Dublin County Council on the management of parks used for inland feeding by seabirds including Brent Geese.

Publications and Reports

Benson, L. 2009 Use of Inland Feeding sites by Light-bellied Brent Geese in Dublin 2008-2009: a new conservation concern? *Irish Birds* 8, 563-570.

Benson, L. Kelly, T.C. Nairn, R. Ni Lamhna, E. 2012. Urban Habitats in Nairn, R. O Halloran, J. (eds) *Bird Habitats in Ireland* pp 196-212

Benson, L & Oliver, G.A. Summary of breeding Bird Surveys on the Meenadreen Windfarm Extension, Co Donegal, Unpublished , 2016, 2017, 2018, 2019, 2020

CURRICULUM VITAE

MARA VAN AELST

PERSONAL DETAILS

Address: Barnabaun, Killoscully, Newport, Co. Tipperary
Date of Birth: 26/05/2004
Nationality: Irish
Telephone: 083 363 2788
Email: maravanaelst@gmail.com

EDUCATION

Third Level: Munster Technological University, Kerry Campus, Course – Wildlife Biology (2022 – present)

Post Primary: Newport College, Black Road, Newport, Co. Tipperary
(2016 – 2022)

Primary: Ballinahinch National School, Ballinahinch, Co. Tipperary
(2008 – 2016)

EXAMINATIONS

LEAVING CERTIFICATE 2022
Points: 613

PREVIOUS EMPLOYMENT

Job Title: Butcher Shop Assistant
Date: June 2020 – Dec 2022
Employer: Denis Quirke, Denis' Meats, Kenyon Street, Nenagh

Job Title: Ornithological surveyor
Date: Nov 2022 – Dec 2023
Employer: Inis Environmental, Ennis, Co. Clare

Job title: Ornithological surveyor
Date: Jan 2024 – March 2024
Employer: KRC Ecological Ltd.

ACHIEVEMENTS

Student Council member (post-primary)
Student of the Year awards (post-primary)
Harp exam distinctions
Taken part in the National Hen Harrier Surveys
Co-led Birdwatch Ireland outings

Member of Birdwatch Ireland

Have been helping out voluntarily on Hen Harrier work with Gyr Penn since the age of 9
Volunteer surveyor for Birdwatch Ireland (Irish Wetland Bird Survey and Countryside Bird Survey)

Volunteered for 2 weeks with the Knoydart Ranger Service in Knoydart, Scotland

Have volunteered with Hometree charity in Ennistymon, Co. Clare (Experience week and volunteer days)

Have done bird survey work with Brian Porter

HOBBIES/INTERESTS

Birdwatching

Nature/Ecology/Wildlife conservation/Regeneration/Rewilding

Hiking/walking

Reading

Gardening/growing things

Playing the harp

Art/creativity

REFEREES

Ms. Clodagh Kelly/Mr. Donal Madden

Principal,

Newport College,

Black Road,

Nenagh,

Co. Tipperary

Tel: 061 378262

Mr. Denis Quirke

Denis' Meats

11 Kenyon Street

Nenagh

Co. Tipperary

Tel: 087 835 3155

Inis Environmental

Ennis, Co. Clare

Managing Director: Howard Williams

Tel: 087 283 1725

KRC Ecological Ltd.
Project coordinator: Joanne Monaghan
Tel: 086 392 8863

CONOR MCGETTIGAN
B.Sc., M.Sc.

DOB: 05/03/1994

22 Lower Main Street,
Dungarvan,
Co. Waterford.
Office: 058-44122 Mobile: 086-2457718
conor@hydroenvironmental.ie

Conor is an Environmental Scientist and has over 5 year's of experience in the environmental sector in Ireland. His experience to date includes;

- Preparation of the Hydrology and Hydrogeology Chapter of Environmental Impact Assessment Reports (EIARs) for over 30 no. renewable energy projects in Ireland;
- Preparation of EIARs and hydrological and hydrogeological impact assessment reports for quarries, sand and gravel pits, residential and commercial developments;
- Completion of Flood Risk Assessment Reports for a wide range of development including renewable energy developments on peatlands;
- Completion of Water Framework Directive Assessment Reports for a wide range of developments including renewable energy developments on peatlands;
- Preparation of Hydrology and Hydrogeology Chapters of the remedial EIAR (rEIAR) for several projects including the historic peat extraction at the Ballivor Bog Group and at Lemanaghan Bog;
- Completion of site works including site walkover surveys, water feature surveys and drainage mapping;
- Geological field mapping and field investigations, including peat probing in peatland environments to determine peat depths and subsoil geological composition;
- Surface water and groundwater sampling, and surface water flow monitoring;
- Installation of water level monitoring piezometers in peatlands, river callows and sand dune systems using a variety of methods including hand augering and window sampling;
- Water level monitoring and datalogger programming, and water level data management;
- Supervision and logging of ground investigations (i.e. trial pits) for a range of developments ranging from proposed underpasses to large wind farm developments;
- Supervision and logging of borehole drilling; and,
- Producing method statements, risk assessments, and EHS plans/documents and acting as H&S officer on various sites.

Conor holds an M.Sc. in Applied Environmental Science (2020) from University College Dublin, graduating with a First-Class Honours degree in 2020. Conor has also completed a B.Sc. in Geology from University College Dublin (First Class Honours, 2016).

Conor has worked on over 30 large wind farm EIAR projects located in peatland environments. Conor has also works on the remedial Environmental Impact Assessment for several historic peat extraction activities at several cutover peatland sites in Ireland.

NITESH DALAL
B.Tech, PG Dip., M.Sc.

DOB: 02/06/1995

22 Lower Main Street,
Dungarvan,
Co. Waterford.
Office: 058-44122 Mobile: 089-2125438
nitesh@hydroenvironmental.ie

Nitesh is an Environmental Scientist and has over 7 years' experience in environmental consultancy and environmental management in India and over 1 year environmental consultancy experience in Ireland. His experience to date includes;

- Preparation of the Hydrology and Hydrogeology Chapter of Environmental Impact Assessment Reports (EIARs) for renewable energy projects in Ireland;
- Preparation of EIARs and hydrological and hydrogeological impact assessment reports for quarries, sand and gravel pits, residential and commercial developments;
- Completion of Flood Risk Assessment Reports for a wide range of development including renewable energy developments on peatlands;
- Completion of Water Framework Directive Assessment Reports for a wide range of developments including renewable energy developments on peatlands;
- Completion of site works including site walkover surveys, water feature surveys and drainage mapping;
- Geological field mapping and field investigations, including peat probing in peatland environments to determine peat depths and subsoil geological composition;
- Surface water and groundwater sampling, and surface water flow monitoring;
- Water level monitoring and datalogger programming, and water level data management;
- Supervision and logging of ground investigations (i.e. trial pits) for a range of developments ranging from proposed underpasses to large wind farm developments;
- Supervision and logging of borehole drilling; and,
- Producing method statements, risk assessments, and EHS plans/documents and acting as H&S officer on various sites.

Nitesh holds an M.Sc. in Environmental Science (2024), a PG Diploma in Health, Safety and Environment from Annamalai University, India (2021) and B.Tech. in Environmental Engineering (2016) from Guru Gobind Singh Indraprastha University, India (2016).

Nitesh has worked on large wind farm EIAR projects located in peatland environments.