

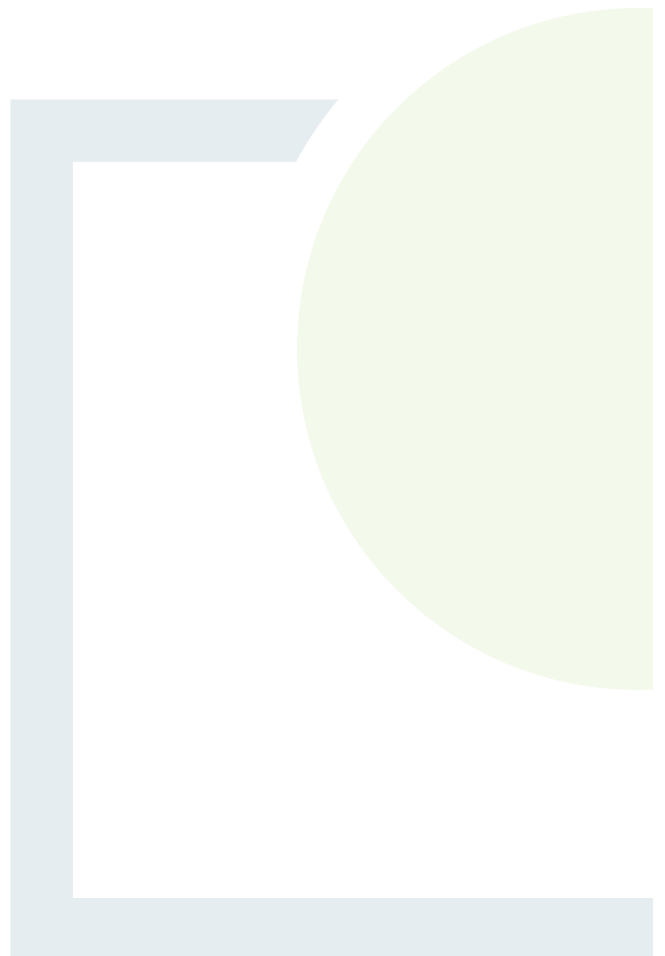


DESIGNING AND DELIVERING
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APPENDIX 1

Introduction

Appendix 1.1 Curricula Vitae



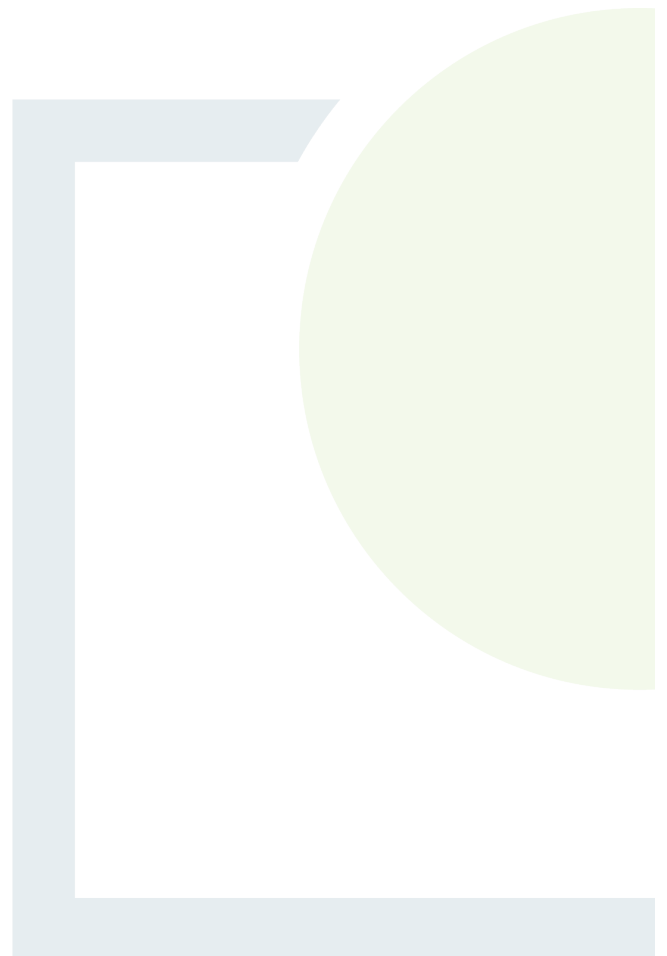


**FEHILY
TIMONEY**

DESIGNING AND DELIVERING
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APPENDIX 1.1

CURRICULA VITAE



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Tanya Ruddy

Technical Director



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Profile

Tanya is a Chartered Scientist and holds a BA in Environmental Science and a Masters in Environmental Management. She is a Chartered Waste Manager (MCIWM) and a Chartered Environmentalist.

Tanya has over 25 years post qualification experience in consultancy. She provides consultancy advice on environmental management, licensing and licence compliance, environmental monitoring, statutory consents, EIAR, materials management and landfill gas. She is experienced in project management of complex projects for both the public and private sector including the management and coordination of statutory consent applications to An Coimisiún Pleanála, local planning authorities and to the EPA. Her experience in large infrastructure includes transport, waste management and renewable energy. Tanya has experience at consent stage and construction stage. She has extensive experience of liaising with clients, key stakeholders, regulators in the procurement and management of sub-contractors, interpretation of environmental monitoring results, management of databases, preparation of reports, budget and timeline control. She is experienced in risk assessment including site investigations, monitoring and interpretation, preparation of remediation plans and site audits. She is an expert in environmental data management. Tanya offers construction support services to ensure compliance with planning conditions and the schedule of commitments.

She has a variety of experience across many licensed facilities in licence compliance management, responding to incidents and non-compliances and interacting with the Irish Environmental Protection Agency on the Clients behalf.

Key Skills

- Project Management
- EIAR Coordination
- Coordination of Statutory Consent Applications
- Environmental Design
- Licence Compliance Management
- Environmental Data Management
- Landfill Gas Management
- Construction Support
- Site Investigation and Risk Assessment
- Resource and Waste Management Planning

Previous Experience Essentials For This Project

Keywords Roads/ Employers Representative/Statutory Consent Application/PAG Options Assessment

- **N19 Shannon Airport Airport Access Road Improvement, 2018-Ongoing.**
FT was appointed as engineering and environmental consultants to Clare County Council for the improvement of the N19 access road to Shannon Airport Phase 2-Phase 5. Phase 2 is complete and FT together with Clandillon has progressed Phase 3, design and assessment for the planning application to An Coimisiún Pleanála including EIAR and NIS.

Tanya is the environmental lead, responsible for the preparation of the EIAR and NIS

Key Information

Qualifications

BA Mod Environmental Science,
The University of Dublin, Trinity
College, 2000

MSc. Environmental Management,
University of Ulster 2001

Professional Memberships

Member of Chartered Institution of
Wastes Management (MCIWM)

Member of the Chartered Institution
of Water and Environmental
Management (CIWEM)

Chartered Scientist (CSci)

Employment History

2001- Present

Fehily Timoney & Company

2000 – 2001

National Health Service (East & South
Belfast Health and Social Services
Trust)

Publications

A management and auditing model
for balancing landfill gas extraction:

C. J. Cronin, P. Kelly, E. Hanley, T.
Ruddy, J. Smith Proceedings Waste
2008

C. J. Cronin, P. Kelly, T. Ruddy, D.
Smyth, S. Meyler Proceedings
Sardinia 2011



Tanya Ruddy
Technical Director

and interaction with An Coimisiún Pleanála and other key environmental key stakeholders. She coordinates with the design team to ensure all aspects of the proposed scheme are assessed.

- **N56 Doonwell to Drumbrack Improvement Scheme, 2024-Ongoing.**

FT was appointed by Donegal County Council to bring the scheme through Phase 2 to Phase 5. FT has completed phase 2 having selected a preferred option. Tanya is the environmental lead for the appraisal and will be responsible for delivery of the NIS and to accompany the planning application to An Coimisiún Pleanála.

- **National Highway N8 Dunkettle Interchange Upgrade Scheme (Public Sector), 2018-2026**

Environmental design lead for the pre-construction and construction contract for the upgrade of the Dunkettle Interchange in Cork. Responsible for delivery and coordination of all environmental monitoring and ecological survey work and reporting during the 12-month pre-construction phase and 3 year construction phase. Ensuring that the environmental protection measures in the Schedule of Commitments and the contract are adhered to. Communication of environmental constraints to the design team in Fehily Timoney and Company, Ramboll and Clandillon Consulting Ltd. and working with the Contractor – Sisk & Sons Ltd. to implement mitigation measures. Stakeholder engagement with NPWS. Elements within the environmental remit included invasive species management, translocation of flora and fauna, protection in place, identification, monitoring and closing of otter holts and badger setts for construction phase, tree felling, landscape design, tidal monitoring, environmental monitoring (groundwater, surface water, noise, vibration, dust and particulates). Protection of heronry in place.

KEYWORDS -STATUTORY CONSENT APPLICATIONS

- **SID application for Powerstown Bioenergy 2024-Ongoing**

FT was appointed by Greengate Biogas 001 Ltd. to prepare the statutory consent applications for the construction and operation of Powerstown Bioenergy. Tanya is the Project Manager. Tanya is responsible for the preparation of the preliminary design for planning, the SID application including EIAR, NIS and a land use assessment for COMAH. Commencing in 2024, Tanya was responsible to engagement with key stakeholders. If permitted, Powerstown Bioenergy will be the largest anaerobic digestion plant in Ireland on a scale with the largest plants in Europe. The proposed development is key to the delivery of Ireland's national target to generate 5.7 TWh of biomethane by 2030.

- **Continued Operation of Clonbullogue Ash Repository, 2020.**

FT was appointed by Bord na Móna Energy Ltd to prepare and submit a planning application for the continued operation of Clonbullogue Ash Repository based in Cloncreen, Clonbullogue, Co. Offaly. The operation will involve the deposition of up to 20,000 tonnes of peat ash and biomass ash during 2023. Tanya was responsible for carrying out pre-planning consultations and preparing the planning application and planning support statement for this proposed development. Tanya was responsible for addressing all planning considerations and environmental considerations and impacts associated with the proposed development. Permission for the proposed development was granted in May 2021.

- **Retention Application for Biomass Facilities and Planning Application Edenderry Power operated by Bord na Móna Energy Ltd in the Midlands, 2021.**

Bord na Móna Energy Ltd. appointed FT to prepare and submit a Planning Application for the retention and continuation of Drumman Biomass Facility, Croghan Biomass Facility and Toar Biomass Facility, all of which are based in the Midlands and for the Operation of Edenderry Power Plant Fueled by Biomass post 2024-2030. Tanya was responsible for carrying out pre-planning consultations and preparing the planning application and planning support statement for each facility development. Tanya was responsible for addressing all planning consideration and environmental considerations and impacts associated with the proposed development. Permission was secured for each facility. Tanya was responsible for the coordination of the EIAR for the planning application for Edenderry Power Plant which was granted permission in May 2022.

- **Development of A SID Application, EIAR and NIS for Knockharley Landfill Expansion, 2014-2019.**

Knockharley Landfill Ltd. retained FT to act as lead consultant for the preliminary design and preparation of the planning application, EIAR and NIS for proposed development at Knockharley Landfill. Tanya was responsible for coordinating and completing the SID Application, EIAR and NIS for the proposed development. Tanya was also responsible for carrying out pre-application consultations and managing the stakeholder engagement phase. Working with relevant internal and external experts and specialists, Tanya arranged for the development of a robust EIAR which set out detailed mitigation and control measures for controlling potential impacts associated with the expansion of the landfill. The Board granted permission for the proposed development in May 2021. This development is one of the largest waste related SID applications in the history of the state at the time.

- **Millennium Park Material Recovery Facility, 2017.**

Thornton's Recycling appointed Fehily Timoney and Company to prepare and submit a Strategic Infrastructure Development (SID) application with accompanying EIAR and AA Screening Report to An Bord Pleanála for a proposed Material Recovery Facility to



Tanya Ruddy
Technical Director

be situated at Millennium Park. Tanya was responsible for coordinating the completion of the SID application as well as the associated EIAR and AA Screening Report. Tanya was also responsible for the completion of an Industrial Emission Licence application for the proposed facility. In her role as Project Manager Tanya led a multi-disciplinary team of engineers, consultants and scientists in developing a design for the proposed facility, assessing the facility's potential environmental impact and developing environmental control and mitigation measures to prevent the occurrence of such impacts. Permission to develop and operate the proposed facility was secured from the Board and the EPA.

- **IED Licence Review Application 2015, Carlow County Council.**

Preparation of the IED licence review application and supporting attachments to increase the tonnage per annum. Procurement of drillers for site investigation, soil sampling, procurement of laboratory and interpretation of soil analysis for a baseline report for the facility.

- **IED Licence Review Application 2015, Eli Lilly Pharmaceuticals.**

Preparation of the IED licence review application and supporting attachments to increase the tonnage per annum. Interpretation of soil analysis for a baseline report for the facility.

KEYWORDS -STRATEGIC WASTE POLICY/DATA MANAGEMENT

- **Integrated Waste Management Masterplan for Abu Dhabi, Centre for Waste Management, Emirate of Abu Dhabi, 2016.**

The first national Waste Management Master Plan for the Emirate of Abu Dhabi was developed by Tadweer (the Centre of Waste Management – Abu Dhabi) on behalf of the executive authority, the Executive Council of Abu Dhabi. Tanya was responsible for collating historic non-hazardous and hazardous waste data, inspection of data and trends, analysis and validation of data and presentation of the quantities of waste being collected, managed, and generated in the Emirate. She presented an analysis of gaps in the current management system to address in the masterplan in order to improve management with the goal of sizing future waste management infrastructure with greater accuracy.

- **Jeddah Environmental Assessment and Jeddah Environmental & Social Master Plan for the Governate of Jeddah under the auspices of the PME and JSDP, 2013.**

Part of a multi-disciplinary team which developed a major environmental and social assessment for the city of Jeddah in Saudi Arabia with a population of almost 4 million people.

Responsibility for carrying out a review and gap analysis of waste management legislation in Jeddah and the Kingdom of Saudi Arabia. Cooperation on the generation of the technical waste chapter for the JEA considering the current status of waste management in Jeddah, the environmental impacts and recommending mitigation measures. The main action will involve developing the framework for an Integrated Resource and Waste Management Plan that is bespoke to Jeddah.

- **Mekkah Taif Sewerage Survey for the National Water Company, Makkah and Taif Cities Business Unit, 2013.**

Design of a data management tool to facilitate data interrogation and reporting for the Makkah Taif Sewerage Survey, a wastewater monitoring project. Acted as liaison between the software developer and the monitoring team in KSA to interpret the data requirements.

- **Assessment of Irish Waste Sector (Public Sector), 2014.**

Project team member for FT's acting as Funders Advisor to the Dublin Waste to Energy (DWtE) project to carry out and present a detailed assessment of the Irish waste sector, to inform the funding process. A "root and branch" examination of the legislative, policy, structural, operational, technical and other related issues that control and interact in the sector was carried out. A detailed assessment of waste volumes in the country was carried out by FT, in order to identify a likely tonnage, range of residual waste available for thermal treatment (RWATT) in future years. Tanya carried out an in-depth assessment of waste flows through all waste management facilities in the Country and examined exports and waste movements. The 'competition' to the DWtE facility was also assessed in terms of other residual municipal waste management options such as landfill, mechanical biological treatment (MBT), the preparation of recovered fuels and the export of municipal waste to mainland Europe. The RWATT tonnages identified were examined versus the potential 'treatment capacity' offered by these other residual municipal waste treatment options.

- **Assessment of Options for the Operation of Civic Amenity Facilities and Bring Centres on a Regional Basis for the South East Region (6 Local Authorities, Ireland), 2009.**

FT was retained by South Tipperary County Council in 2009 on behalf of the 6 local authorities in the Region to carry out a review of 13 no. civic amenity facilities and 324 no. bring banks. The study focused on operations and costs. Tanya was responsible for data collation and analysis.

- **Procurement of a Service Provider to collect recyclable material from a network of civic amenity facilities in the South East Region (6 Local Authorities, Ireland), 2010.**

South Tipperary County Council, on behalf of the six Local Authorities in the South East Region (Carlow County Council, Kilkenny County Council, South Tipperary County Council, Waterford County Council, Waterford City Council and Wexford



Tanya Ruddy
Technical Director



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

County Council) retained FTC to advise on the appointment of suitably qualified service providers for the collection, bulking and marketing of recyclables from bring sites and recycling centres in the South East Region. The decision to procure services resulted from a review of all these sites in terms of operational efficiency and financial cost to each of the local authorities. Tanya was responsible for data presentation for contractors in the tender documents.

- **Evaluation of the Joint Waste Management Plan for the South East Region (6 Local Authorities, Ireland), 2012.**

This project was carried out on behalf of six local authorities. It included a stakeholder meeting in order to discuss progress made and challenges faced over the lifetime of the Plan.

A review of waste management policy was conducted to determine its applicability going forward. A legislative and policy review was carried out to determine the elements of the Plan which need to be revised.

- **Evaluation of the Waste Management Plan for the Midlands Region (5 Local Authorities, Ireland), 2012.**

This was carried out on behalf of five local authorities. The project included a stakeholder meeting in order to discuss progress made and challenges faced over the lifetime of the Plan. A review of waste management policy was conducted to determine its applicability going forward. A legislative and policy review was carried out to determine the elements of the Plan which need to be revised.

- **Evaluation of the Waste Management Plan for County Kildare, Ireland (Public Sector), 2013.**

The project included a stakeholder meeting in order to discuss progress made and challenges faced over the lifetime of the Plan. A review of waste management policy was conducted to determine its applicability going forward. A legislative and policy review was carried out to determine the elements of the Plan which need to be revised.

- **South East Region – Review of Waste Inventory (6 Local Authorities, Ireland), 2011.**

Project team member for the review of the waste inventory for the South East Region on behalf of the six Local Authorities. This project started as a review of the 2009 waste inventory and was extended to include a review of the 2009 waste inventory. The results allowed the project team to extract tables of data of importance to the Region and to each of the authorities. It provided a point from which the future waste statistics for the region could be compared to establish trends and also a marker for comparing waste generation in the region with other regions. Responsible for coordination of waste data validation by the 6 local authorities in 2010 including preparation of a validation and analysis protocol and use of the e-AER tool resulting in a significant improvement in data quality.

This project along with the analysis of waste data in the Dublin Region led Tanya to meet with the EPA regarding national waste data collection resulting in significant improvements nationally.

- **Waste Collection Dataset for the Dublin Waste Management Region (Public Sector), 2009.**

Collation, validation and analysis of c.1,000 waste collection permit returns to determine household and non-household waste arisings in the Region in a custom made database. Detection of errors in returns from waste collection permit holders. Analysis of data to show key findings and for the return to the EPA for the National Waste Database. Elimination of double counted data moving through waste facilities in the Region had a significant impact on commercial waste arisings and other non-household waste.

- **Development of a Technical Information Resource for Landfill for the Environmental Protection Agency (Public Sector, Ireland), 2010.**

This project involved the preparation of an information resource for the EPA's internal website where staff could reference all relevant legislation, policy and EPA guidance on landfill. Project manager with responsibility for coordination of the production of the resource.

- **Environmental Reporting Tool, Arthurstown Landfill, County Kildare, Ireland (Public Sector), 2010.**

Collation of over 50,000 environmental monitoring results for the period 2001 to 2006 into a web based reporting tool for South Dublin County Council for their landfill facility at Arthurstown, Co. Kildare. Design of report templates, identification and elimination of errors, coordination with contractor. The web based reporting system allows trending of environmental data with time and comparison of parameters with maximum allowable concentrations. Training of Clients and their monitoring consultants and laboratories. Updating of that system in 2010 to incorporate newly available more powerful software.

- **Estimates of Methane Recovery in Landfill Gas Flaring and Utilisation, 2009.**

The project involved surveying all licensed landfills, compilation and analysis of results in a custom made database for the EPA. The outputs included the volume of methane flared and utilised in Ireland annually 1996 to 2008. It makes recommendations of management practices and infrastructure to improve the efficiency of methane recovery. It included the design of reporting systems for the EPA to collate this information from licensees in the future.

- **Review of the Wicklow Waste Management Plan, 2006.**

Preparation of the review of the Waste Management Plan for County Wicklow 2006 – 2010. Responsibility for data collation, policy formation, objectives and targets and layout publication.



Tanya Ruddy
Technical Director

- **Review of the Waste Management Plan for the South East Region (6 Local Authorities, Ireland), 2005.**

Team member with responsibility for waste generation modelling for the plan. Collation of waste data and statistics, correction of data, future arising productions and assessment of waste streams to size facility requirements.

RISK ASSESSMENT, ENVIRONMENTAL MONITORING AND LICENCE COMPLIANCE

- **Risk Assessment, Confidential 2021 ongoing**

Tanya was the project manager for a significant risk assessment of groundwater and land contamination at a confidential site in Ireland. She has been liaising with both the client and the Regulators since the onset of the risk assessment. To date there have been three phases of site investigation to establish the extent of contamination. Tanya is working with a specialist hydrogeologist on the interpretation of data along with experts from overseas. This has been a significant project with a team of 8 people working on site collating data.

- **Licence Compliance Monitoring at Arthurstown Landfill. Co. Kildare, South Dublin County Council 2022-2025.**

- **Licence Compliance Monitoring at Balleally Landfill and Dunsink Landfill, Fingal County Council, Ongoing.**

Responsibility for winning the competitive tender process and Project Manager since 2012. Acted as a sampler on site, monitoring landfill gas, dust, PM₁₀, groundwater, surface water, leachate and noise. Responsible for the completion of all sampling and reporting. Currently as Project Manager, responsible for management of sampling staff, the laboratory, procurement and management of the stack testing, approval of compliance reporting and consultancy advice to FCC regarding non-compliance or incidences relating to monitoring licence compliance. Responsibility for preparation of the AER and Environmental Performance Reporting/PRTR. Advice on materials management, testing and determining suitability of soils on site for reuse or soils off site for capping material.

- **Licence Compliance Monitoring, East Galway Landfill, Galway County Council, Ongoing.**

Project Manager for environmental monitoring and reporting at East Galway Landfill. Management of budget and timelines for surface water, groundwater, leachate, dust, noise, PM₁₀ and landfill gas sampling and interpretive reporting. Preparation of licence compliance reports, biannual VOC surface emission surveys, bund tests, slope stability assessments, procurement of surveyors for void space analysis.

- **Licence Compliance Monitoring at Ballyogan Landfill, Dun Laoghaire-Rathdown County Council, Ongoing.**

Project Manager for environmental monitoring at the landfill in compliance with the conditions of the waste licence. Monitoring includes dust, landfill gas, groundwater, surface water, noise, leachate and emissions to sewer. Responsible for the completion of all sampling, management of the laboratory, procurement and management of the stack testing, interpretation of results, compliance reporting and using EDEN on behalf of the DLRC. Responsibility for preparation of the AER and PRTR and VOC surface emission survey.

- **Licence Compliance Monitoring at Knockharley Landfill, AGB Landfills Ltd, 2018.**

Project Manager for licence compliance monitoring. Prior to the transfer of the landfill to new owners, FT was responsible for all monitoring on site excluding stack monitoring. Post transfer, the new Client has taken on the role of sampling, FT is retained to carry out groundwater sampling and to prepare the interpretive reports. Responsibility for preparation of the slope stability analysis, integrity testing, AER and PRTR. Soil sampling and interpretation of laboratory analysis.

- **Sampling of POPs in Bulky Wastes, EPA, 2011.**

Project Manager for sampling of bulky wastes for POPs, samples to three laboratories to as part of an EU project to determine a methodology for sampling and analysis. Liaison with laboratories, interpretation of results and preparation of report.

- **Licence Compliance Monitoring at Millennium Park and Greenogue WTS, Greenstar, 2016.**

Project Manager for the environmental licence compliance monitoring and reporting at these 2 facilities. Media include surface water, emissions to sewer, dust and noise.

LICENCE COMPLIANCE MANAGEMENT AND LICENCE APPLICATIONS/REVIEWS

- **Development of a Technical Information Resource for Landfill for the EPA, 2010.**

Project Manager for the preparation of an information resource for the EPA's internal website where staff could reference all relevant legislation, policy and EPA guidance on landfill. Project manager with responsibility for coordination the production of the resource.

- **Dublin Waste Management Region 2008) 2008, 2009 and 2010.**

Project Manager for the design of a data management tool to collate and analyse vast volumes of waste data.

- **Environmental Reporting Tool, Arthurstown Landfill, Co. Kildare, 2007 & 2010.**

Collation of over 50,000 environmental monitoring results for the period 2001 to 2006 into a web based reporting tool. Design of report templates, identification and elimination of errors, coordination with contractor. The web based reporting system allows trending of environmental data with time and comparison of parameters with maximum allowable concentrations.



Tanya Ruddy
Technical Director

Updating of that system in 2010 to incorporate newly available, more powerful software.

- **Unauthorised landfills, Co. Waterford, 2007.**

Project manager for an investigation of unauthorised landfills situated in wetland areas of local conservation value. Preparation of initial conceptual models for four sites, followed by a risk assessment including site investigations, sampling, analysis and interpretation. Preparation of detailed remediation plans for two sites. The results of the investigations and remediation plans were submitted in response to European Commission case (49410).

Engineering and Environmental Consultancy Services to Ballyogan Landfill, Dun Laoghaire-Rathdown County Council, Ongoing.

Project Manager for the provision of consultancy services. Client liaison, budget and quality management. Coordination of various services to DLRCC as required including site investigations and recommendations on the installation of a sub-surface 220kv electricity line through the landfill site.

LANDFILL GAS MONITORING AND MANAGEMENT

- **PRTR Reporting Various Landfills, Ireland, 2018.**

Calculation of emissions to ground, water and air from waste licensed facilities and presentation in EPA electronic report format of this modelling tool for other landfills.

- **Estimates of Methane Recovery in Landfill Gas Flaring and Utilisation (2008/2009).**

This project involved surveying all licensed landfills, compilation and analysis of results for the EPA. The outputs included the volume of methane flared and utilised in Ireland annually 1996 to 2008. It makes recommendations of management practices and infrastructure to improve the efficiency of methane recovery. It included the design of reporting systems to collate this information from licensees in the future.

- **Landfill Gas Migration Investigation, Kinsale Road Landfill, Cork City, 2003.**

Investigation of potential landfill gas migration incident investigative work included geophysical surveys, trial pit investigations, installation of monitoring boreholes, extensive monitoring, data management and interpretation carried out. Sampling of gas for trace constituents. Interpretative reporting to define source.

- **Management and Auditing Model, Arthurstown Landfill, Co. Kildare.**

Responsibility for data collation for the design of a landfill gas field management and auditing model. Development of a flow based extraction philosophy for Ireland's largest landfill gas field. Also involved in the adaptation.

- **Waste Inventory (South East Waste Management Region 2008 and 2009, Investigation into Naturally Occurring Background Gas Levels at Holmestown Landfill, Co. Wexford Ireland, 2008.**

Project manager responsible for conducting an investigation of elevated methane gas levels at a newly constructed landfill prior to waste acceptance. Phase I of the assessment included a risk assessment and recommendations and Phase II included trace gas sampling of naturally occurring gas. Meeting with EPA resulting in alternative monitoring methods for potential landfill gas migration and facility opening.

- **Capacity Sizing Assessment, Arthurstown Landfill, Co. Kildare, 2008.**

Project manager for a review of gas predictions for Arthurstown Landfill in order to inform decisions being taken by the operators about current and future capacity requirements. This is included in the review of a gas model prepared on behalf of the utilisation plant provider.

- **Landfill Gas Field Audits, Various Landfills, Ireland, 2008.**

Project manager with responsibility for auditing problematic landfill gas collection and extraction systems. Auditing the gas fields included; flow measurement in each gas zone, gauge pressure and gas quality monitoring, inspection of infrastructure including extraction well performance, pipelines knock out pots, valve and monitoring infrastructure. Review of monitoring and flaring/utilisation records. Determination of issues and snag lists to correct.

- **Landfill Gas Fields Balancing, Various Landfills, Ireland, 2008.**

Project manager with responsibility for balancing landfill gas fields and training site staff. Determination of most suitable approach for specific landfills, i.e. flow based or methane based extraction philosophy. Collation of historical data, monitoring flows gauge pressure and gas quality across the field analysis of data and subsequent changes to the field based on results.

- **Management and Auditing Model, Donohill Landfill, Co. Tipperary, 2007/2008.**

Responsibility for client liaison and training of the Landfill Manager on the use of the model and in landfill gas field balancing techniques.

- **Landfill Gas Migration Investigation, Kinsale Road Landfill, Cork City, 2003.**

Investigation of potential landfill gas migration incident investigative work included geophysical surveys, trial pit investigations, installation of monitoring boreholes, extensive monitoring, data management and interpretation carried out. Sampling of gas for trace constituents. Interpretative reporting to define source.



Tanya Ruddy

Technical Director



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Waste Characterisation and Classification of Leachate, Kildare, 2018.**
Determination of non-hazardous status of leachate post treatment through leachate analysis, use of HazWasteOnline and physical testing to demonstrate status to EPA and approval for leachate treatment process at Drehid Landfill.
- **Advice on Materials Management, Dunkettle Interchange Upgrade, 2019.**
Technical note on options to define materials on site as waste, for reuse and determination of mechanism and sources for import of by-products under Article 27.
- **Opera One, Limerick Twenty Thirty, 2023- Ongoing**
Project Manager for the Preparation of a Resource Waste Management Plan for Contract B (basement and building) for Limerick Twenty Thirty in cooperation with the Southern Region and Sisk & Son Ltd. Advice on Article 27 and Article 28. Review of EPA guidance following learning outcomes from the project for feedback to the EPA.
- **Resource Waste Management Plans, Various**
Preparation of RWMPs for small projects to accompany planning applications. Advice on management of materials to prevent waste, reuse materials and consider all aspects of material management at planning stage.
- **Various Clients, Ongoing.**
Advice on waste characterisation and waste classification and advice on Article 27 - the use of clean soil and stone as a by-product, reuse of road planings under Article 27 FOR for fill or landfill capping material.



Bernie Guinan

Director



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Bernie is Director with FT responsible for Waste & Resource Management and Environmental Science. She has 20 years' experience in delivering and managing projects in environmental sector. Bernie has extensive experience in the preparation of Planning Applications, Environmental Impact Assessment Reports, Appropriate Assessments for a wide range of infrastructure developments for Local Authorities, Public Authorities, Semi-State Bodies and private developers. She has experience delivering expert testimony at Oral Hearings and Court Cases.

Previous Experience Essentials For This Project

- **SID application for Powerstown Bioenergy - Ongoing**
- Bernie is the Project Director responsible for the preparation of the preliminary design for planning, the SID application including EIAR, NIS and a land use assessment for COMAH. If permitted, Powerstown Bioenergy will be the largest anaerobic digestion plant in Ireland on a scale with the largest plants in Europe. The proposed development is key to the delivery of Irelands national target to generate 5.7 TWh of biomethane by 2030
- **Biocore Anaerobic Digestion Facility, Ongoing.**
Project Director with responsibility coordinating the preparation of a planning application and EIAR for a 90,000 tonne per annum Anaerobic Digestion facility to be based in Ballaghderreen, Co. Roscommon
- **Biocore Anaerobic Digestion Facility, Ongoing.**
Project Director with responsibility coordinating the preparation of a planning application and EIAR for a 90,000 tonne per annum Anaerobic Digestion facility to be based in Portarlinton, Co. Laois.
- **Edenderry Power Ltd. – Continued use of Edenderry Power Plant to 2040 - Ongoing**
- Project Manager to prepare and submit a Planning Application, an EIAR and a NIS for the continued operation of Edenderry Power Plant from 2030 to the end of 2040 exclusively using sustainable biomass fuel.
- **Bord an Móna Energy Ltd. - Clonbullogue Ash Repository – Ongoing**
Project Manager for the preparation of a Planning Application, EIAR and NIS for the continuation of Clonbullogue Ash Repository from 2031 to 2041 for the acceptance of ash from Edenderry Power Station.
- **Wilton Waste – Materials Recovery Facility – Ongoing**
Project Director with responsibility coordinating the preparation of a planning application and EIAR for a 149,000 tonne per annum facility in County Cavan
- **Wilton Waste – Materials Recovery Facility – Ongoing**
Project Director with responsibility coordinating the preparation of a planning application and EIAR for a 149,000 tonne per annum facility in County Kildare
- **Stericycle Healthcare Waste Management Facility 2025**
Project Director with responsibility coordinating the preparation of a SID planning application and EIAR for a 25 ,000 tonne per annum in County Cork

Key Information

Qualifications

MSc, BSc. (Envi. Sci & Tech),

Dip. Pollution Assessment Control

Dip. Business Development

Professional Memberships

Chartered Institution of Wastes
Management (CIWM)

Employment History

2006- Present

Fehily Timoney & Company, Dublin
Position

2000 – 2006

Fehily Timoney & Company, Cork
Position

1999 – 2000

Entec UK Ltd., Dublin
Position

1997 – 1999

A.T. Cross Ltd., Galway
Position



Bernie Guinan

Director



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Claremorris Historic Landfill, 2023.**
Project Director responsible for completing a concurrent Section 177AE application and CPO confirmation application for the Claremorris Historic Landfill Remediation project. Planning was granted An Bord Pleanála.
- **Thorntons Recycling, Material Recovery Facility, 2023.**
Project Director responsible for the completion of an SID Application, EIAR and NIS for a Material Recovery Facility with a capacity to accept 300,000 tonnes per annum of waste to be based at Cappogue, Dublin. Planning was granted by An Bord Pleanála
- **Oxigen Environmental Ltd. - Materials Recovery Facility, €8-10M, Ongoing.**
Project Director for the development of the facility design and the preparation of planning application, EIAR and NIS for a 90,000 tpa facility that will accept household, commercial, food and construction and demolition waste.
- **Bord an Móna Energy Ltd. - Clonbullogue Ash Repository, 2019-2020.**
Project Manager for the preparation of a Planning Application, EIAR and NIS for the continuation of Clonbullogue Ash Repository from 2024 to 2031 for the acceptance of ash from Edenderry Power Station. Planning was granted by Offaly Co Co.
- **Bord an Móna Energy Ltd. - Clonbullogue Ash Repository, 2020- Planning Decision Granted by Offaly County Council in 2021.**
Project Manager for the preparation of a Planning Application, EIAR and NIS for the continuation of Clonbullogue Ash Repository from 2022 to 2023 for the acceptance of ash from Edenderry Power Station.
- **Edenderry Power Ltd. – Continued use of Edenderry Power Plant exclusively using Biomass, 2020-2021**
Project Manager to prepare and submit a Planning Application, an EIAR and a NIS for the continued operation of Edenderry Power Plant from the beginning of 2024 to the end of 2030 exclusively using sustainable biomass fuel. This Planning was granted by Offaly County Council.
- **Bord na Móna Energy Ltd. - Retention Planning Application for a Biomass Facility at Drumman, Co. Offaly – 2020-2021**
Project Director for the preparation of a Planning Application for the retention and continuation of Drumman Biomass Facility, Co. Offaly. The application process involved conducting pre-planning consultations and preparing the planning application and planning support statement. Permission was granted by Offaly County Council in 2021.
- **Bord na Móna Energy Ltd. - Retention Planning Application for a Croghan Biomass Facility at Croghan, Co. Offaly – 2020-2021**
Project Director for the preparation of a Planning Application for the retention and continuation of Croghan Biomass Facility, Co. Offaly. The application process involved conducting pre-planning consultations and preparing the planning application and planning support statement. Permission was granted by Offaly County Council in 2021.
- **Bord na Móna Energy Ltd. - Retention Planning Application for a Toar Biomass Facility, Co. Westmeath – 2020-2021**
Project Director for the preparation of a Planning Application for the retention and continuation of Toar Biomass Facility, Co. Westmeath. The application process involved conducting pre-planning consultations and preparing the planning application and planning support statement. Permission was granted by Westmeath County Council in 2020. This grant was subject to a third party appeal to An Bord Pleanála (ABP) but granted planning in 2021.
- **Powergen Ltd. - Bord na Móna – Development of a Renewable Gas Project 2018 – 2019. Planning was granted by Laois County Council in January 2020**
Project Manager for the preparation of an EIAR, Planning Application and AA Screening for a 80,000 tpa anaerobic digestion facility, biomethane cleaning plant and gas to grid entry unit, junction upgrade on the R445 and an 1.5KM extension of the GNI local grid network. This planning was subject to a third party appeal to An Bord Pleanála but consent was upheld by An Bord Pleanála.
- **Quirk's Quarries – Preparation of Planning Application and EIAR 2017-2019. Planning was granted by Kerry County Council 2020**
Project Director for the preparation of an EIAR and Planning Application for the continuation of use of an existing quarry and the development of a 12 ha extension in Killarney, Co. Kerry. This planning is subject to a third party appeal to An Bord Pleanála.
- **Knockarley Landfill Ltd.- Intensification of Waste Acceptance and the Development of Incineration Bottom Ash Storage, Biowaste Treatment and Leachate treatment Facilities 2016 – 2019. Planning was granted by An Bord Pleanála in 2021.**
Project Director for the preliminary design and preparation of the EIAR, Strategic Infrastructure Development (SID) Planning Application, NIS, Liaison with the Client and review and approval of the application. The proposed development is for the acceptance of 440,000 tpa of waste. This development is one of the largest waste related SID application in the history of the state at the time of writing.



Bernie Guinan

Director



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Kerry County Council – South Kerry Greenway – Planning Application and EIS 2015 – 2019. Planning was granted by An Bord Pleanála in 2020.**
Project Director for the preparation of an EIAR and Planning Application under the Roads Acts for the development of 32 KM for Greenway from Glenbeigh to Rennard. The planning application was lodged to An Bord Pleanála in August 2018 and granted in 2020.
- **Thorntons Recycling Ltd – Construction and Demolition Waste – Retention Planning Application and AA Screening 2019. Planning was successfully grant by Fingal County Council.**
Project Director for the preparation of a Retention Planning Application for a Construction and Demolition facility. The development comprised of a waste processing building, welfare and office accommodation and ancillary infrastructure including surface and foul drainage.
- **Thorntons Recycling Ltd – Intensification of a Construction and Demolition Waste Facility 2020 – Planning Application, EIAR and AA Screening. Planning was successfully grant by Fingal County Council.**
Project Director for the preparation of a Planning Application., EAIR and AA Screening for the intensification of a Construction and Demolition facility to 49,000 tpa. The development comprised of a waste processing building, welfare and office accommodation and ancillary infrastructure including surface and foul drainage.
- **Thorntons Recycling Ltd. - Millennium Park Material Recovery Facility – EIAR, Strategic Infrastructure Development (SID) Planning Application, AA Screening and IE Application 2016-2017. Planning was successfully grant by ABP.**
Project Director for the preparation of an EIAR, SID Planning Application and IE Licence Application for a Materials Recovery Facility (MRF) and waste transfer station to process up of 170,000 tpa MSW, brown bin and C&D wastes. The development comprised of a waste processing building, a baled storage building, welfare and office accommodation and ancillary infrastructure including surface and foul drainage.
- **EIS for Aviation Fuel Pipeline Dublin Port to Dublin Airport, Ireland, €18.6m, 2016.**
Project Director for the preparation of planning application, EIS, NIS and flood risk assessment for a 14km pipeline route through Dublin City. A dual application to both Dublin City Council and Fingal County Council requiring over three years consultation with various sections of the local authorities on route selection and EIS scoping.
- **Cork Dockyard Scrap Metal Recycling Facility, Co. Cork Ireland, €1.5m, 2013.**
Project Director for the development of a scrap metal recycling facility (45,000 tpa) an RDF storage facility (45,000 tpa) including pre-application consultations, preliminary design, EIS, Stage 1 AA screening report, flood risk assessment and planning application. Permission was refused by Cork County Council but was successfully appealed by FTC to An Bord Pleanála in 2013.
- **Powerstown Landfill Extension of Time Application, Co. Carlow, Ireland €Confidential, 2012.**
Project Director for the preparation of the strategic infrastructure application and EIS for the extension of the life of Powerstown Landfill, Co. Carlow. This site had a complex planning history and required significant liaison with the local authorities' senior counsel on the most appropriate way forward.
- **Railway Procurement Agency, Light Rail Schemes, Dublin, Ireland, 2011.**
Project Director for the preparation of the soils, geology, water quality and waste section of the EISs for the Metro North Depot, Metro West and BXD light rail schemes. Role included participation on scoping workshops and preparing expert witness testimony for the metro west and BXD projects.
- **Peer reviewer of EIS for Silvermines Rehabilitation Project, Co. Tipperary, Ireland, € Confidential, 2009.**
Responsible for the independent review of the EIS for the rehabilitation of Silvermines to determine compliance with planning and environmental legislation.
- **Tegral Holdings Ltd, Athy, Co. Kildare, Ireland €100m, 2009.**
Project Director for the planning application and EIS for the re-location of the Tegral production facilities from Athy town to a greenfield site (46,000 m2 of building development). Preparation of response to third party appeal to An Bord Pleanála. Permission granted by the Board in 2009.
- **Ballywalter Farms Ltd. Bioenergy Facility, Co. Wexford, Ireland, €50m, 2009.**
Project Director for the preparation of the planning application, preliminary design EIS and NIS for a 99,000 tpa bioenergy facility. This project proposed the technology anaerobic digestion and substantial on-site wastewater treatment and bio-gas management.
- **Derryclure Landfill, Co. Offaly, Ireland €5m, 2009.**
Project Director for the preparation of the EIS and waste licence review application for the intensification of waste acceptance activities at Derryclure landfill from 40,000 tpa to 100,000 tpa.



Bernie Guinan

Director



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- **Curraleigh West to Midleton Gas Pipeline, Co. Cork, Ireland, €50m, 2008.**
Project co-ordinator of the strategic infrastructure application for 47 km Bord Gáis pipeline.
- **Biological Treatment Facility, Portlaoise, Co. Laois, Ireland, €20m, 2008.**
Project Manager for the preparation of the EIS and waste licence application for a 99,000tpa biological treatment facility for a Private Client.
- **Private Client, Co. Wexford, €50M, Complete.**
Project Director for the preparation of planning application, EIS and waste licence application for a 100,000 tpa bioenergy facility.
- **Knockharley IWMF, 2010.**
Project Director for statutory process for the provision of anaerobic digestion (90,000 tpa), composting and ancillary recycling as part of the upgrade of the Knockharley facility.



James O'Neill

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

James is an Associate Director and Chartered Engineer with Fehily Timoney & Company with **17 years post qualification experience** working on waste management, resource recovery and landfill related projects. James holds an MSc in Civil Engineering from Trinity College Dublin (2009) and a BEng (Hons) in Civil Engineering from University College Dublin (2008). James is a Chartered Member of the Institute of Engineers Ireland and a Chartered Waste Manager with the Chartered Institute of Wastes Management.

James' primary experience relates to the resource and waste management sector, in particular waste infrastructure design, environmental & operational management of waste processing facilities, landfill remediation and aftercare works, remediation of contaminated lands, leachate and landfill gas management and civic amenity site design. His areas of expertise include procurement and site supervision, project management, contract and tender management. James has a detailed knowledge of the design of waste management and resource recovery related infrastructure including Materials Recovery Facilities, Anaerobic Digestion Plants, Mechanical Biological Treatment and related infrastructure. James has been involved in the procurement design, tendering, tender assessment and contract administration of a variety of contracts in Ireland, UK and Internationally (Middel East and Malta)

Key Skills

- Waste Facility Design and Operations
- Environmental and operational management of waste processing facilities
- Project Management, contracts and tender management
- Contract Administration under Public Works and Other Contracts
- Civil Infrastructure Development
 - Investigation and remediation of contaminated lands, landfill sites and civic amenity site design.

Previous Experience Essentials For This Project

Waste Infrastructure: EIAR, Planning and S.I.D Applications

- **Principal Engineer: EIAR for Powerstown Bioenergy**
Lead Civil and Environmental Designer for the proposed Powerstown bioenergy facility. If permitted, Powerstown Bioenergy will be the largest anaerobic digestion plant in Ireland on a scale with the largest plants in Europe. The proposed development is key to the delivery of Irelands national target to generate 5.7 TWh of biomethane by 2030.
- **Principal Engineer: Renewable Gas Facility, Bord Na Mona 2020-2023.**
Responsible for the preliminary design for the EIAR for a proposed Renewable Gas Facility. The proposed facility will treat 80,000 or organic waste by anaerobic digestion to produce an organic biogas. The biogas will be cleaned and upgrade for injection into the national gas grid network.
- **Principal Engineer: Biomass the Energy Facility, Bord Na Mona 2021.**
Responsible for design and engineering support for the EIAR for the proposed conversion of the existing peat power station to a biomass only power plant.

Key Information

Qualifications

MSc. In Civil Engineering,
Trinity College, Dublin, 2009

BEng. (Hons) Civil Engineering,
University College Dublin, 2008

Professional Memberships

Chartered Member Institute of
Engineers Ireland

Corporate Member of the
Chartered Institution of Wastes
Management

Member of the Society of
Environmentalists

Engineers Ireland: Register of
Approved Chartered Engineers
Historic Landfills

Employment History

2013- Present

Fehily Timoney & Company, Dublin
Principal Engineer

2009 – 2012

Oxigen Environmental
Position

2007 – 2007

Malone O'Regan Consulting
Engineers
Position



James O'Neill
Associate Director

Responsible for the preparation of planning drawings to support the application including development of ash repository designs and log storage area applications.

- **Senior Engineer: Knockharley Landfill SID.**

Responsible for the engineering design for the Strategic Infrastructure Development application to An Bord Pleanála. The proposed development is for the intensification of waste acceptance to 440,000 tonnes per annum, development of an incinerator bottom ash facility, leachate treatment facility, **biological treatment facility** and ancillary infrastructure.

Waste Infrastructure: Owner's Engineer - Preliminary design, Detailed Design and Contract Administration

- **Senior Engineer: Renewable Gas Facility, Bord Na Mona. 2018- 2020**

Responsible for the facility layout and design for a proposed Renewable Gas Facility. The proposed facility will treat 80,000 or organic waste by anaerobic digestion to produce an organic biogas. The biogas will be cleaned and upgraded for injection into the national gas grid network. Design included site access and traffic management, management offices, welfare facilities, digestate bund, waste reception facility, ESB substation and tank farm bunded area. Responsible for co-ordinating client mechanical and electrical design within overall layout including, reception, digestion and pasteurisation tanks, de-pack equipment, biogas upgrade and conditioning unit and grid injection infrastructure.

- **Project Engineer: Brocklesby Anaerobic Digestion Facility, 2014-15**

Project Engineer on the design for planning for an Anaerobic digestion facility in North Cave, Brocklesby. Key site challenges included the development of the facility atop made ground and constrained site. Responsible for the design, specification and interpretation of site investigations programme including waste analysis and rock core strength testing. Development of site layout in conjunction with appointed preferred technology supplier, preparation of preliminary civils design including tank farm piling design, preparation of detailed bill of quantities for the works and preparation of detailed civil costs estimate

- **Project Engineer: Bury St. Edmunds Anaerobic Digestion Facility, 2014-2015**

Project Engineer supporting the tender design for an Anaerobic digestion facility as part of an EPC contract bid for a facility located in Bury St. Edmunds. Key site challenges included the development of the facility within a disused quarry including the development of a retained access road. Responsible for the interpretation of site investigations and development of project geotechnical risk register. Developed site layout in conjunction with appointed preferred technology supplier, preparation of preliminary civils design including tank farm foundation design, preparation of detailed bill of quantities including risk estimates for the works

- **Project Engineer: Hope Farm Anaerobic Digestion Facility, 2014-2015**

Project Engineer supporting the tender design for an Anaerobic digestion facility as part of an EPC contract bid for a facility located at Hope Farm. Responsible for the development of 3D site drawings in AutoCad Civil 3D for the optimisation of layouts via cut fill analysis. Developed site layout in conjunction with appointed preferred technology supplier, preparation of preliminary civils design including tank farm foundation design, preparation of detailed bill of quantities including risk estimates for the works

- **Senior Project Engineer: Jubail Waste Transfer Station and MRF, Kingdom of Saudi Arabia, 2018.**

International Waste Management expert to local architectural lead designer (Al-Naim Consulting Engineers) on the development of a new waste transfer and materials recovery facility for Jubail Industrial City Royal Commission. Role includes the design of the waste storage and transfer area and rainbow bagged (mixed dry recyclables) materials recovery facility. The facility is the first of its type in the region and will accept up to 300,000 tonnes per annum of mixed residual and segregated (rainbow bag) waste.

- **Senior Project Engineer: TalKus Waste Transfer Station and MRF, Gozo, Malta, 2017.**

International expert on FIDIC form of contract for a €15 M design build integrated waste management facility in Malta (Gozo; Tal-Kus). Role included the inspection and certification of the operations and management of a WTS in accordance with the Guaranteed Operational Parameters of the Materials Recovery Facility, containerised residual waste transfer system and bulky waste shredding and transfer.

- **Senior Engineer: HWRC Provision Review, Monmouthshire County Council, WRAP CCP, Wales, 2020.**

Senior Engineer responsible for the Project management of upgrade works to an existing Materials Transfer and recovery Facility in Monmouthshire Wales. Works to include preparation of contract documentation (NEC Form of Contract Option B) design and measure of a detailed CESSM3 Bill of Quantities. Responsibility for management of tender process under a restricted procedure, chairing of pretender contractor meetings, assessment of tenders and contract administration **Project Engineer: Materials Recovery Facility supported by WRAP CCP, Newport Wales, 2016.**



James O'Neill

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Responsible for the Project management of the £500,000 upgrade works to an existing Materials Transfer and recovery Facility in Newport Wales. Works included **preparation of contract documentation (NEC Form of Contract Option B)** design and measure of a **detailed CESSM3 Bill of Quantities**. Responsibility for management of tender process under a restricted procedure, chairing of pretender contractor meetings, assessment **of tenders** and **contract administration** during the construction period and part time supervision of works



Eibhlín Vaughan

Project Environmental Scientist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Eibhlín is a Project Environmental Scientist on the Circular Economy and Environment team at Fehily Timoney and Company. Eibhlín holds a First Class Honours Bachelor's Degree in Environmental Science from Trinity College Dublin and a research Master of Engineering Science Degree from University College Dublin, in which her research focussed on surface water quality in forest settings under the Water Framework Directive.

Eibhlín works on a range of projects including Environmental Impact Assessment Reports (EIARs) for infrastructure projects, Resource and Waste Management Plans (RWMPs), Waste Permit applications, Strategic Environmental Assessment (SEA) reports and Appropriate Assessment (AA) reports, contaminated lands projects, renewable energy, and environmental monitoring projects.

Key Skills

- Technical Report Writing
- Environmental monitoring
- Data Analysis
- Hydrology
- Programming languages: RStudio
- GIS analysis using QGIS and ArcMap 10.7
- Lab Work

Previous Experience Essentials for this Project

- **EIAR for Powerstown Bioenergy - Ongoing**
Eibhlín supports the EIAR lead in the coordination and completion of the Powerstown Bioenergy EIAR. She has authored several chapters and appendices and was responsible for conducting reviews of all chapters from technical specialists.
- **N19 Shannon Airport Access Road Improvement EIAR, 2021 - ongoing.**
FT was appointed as engineering and environmental consultants to Clare County Council for the improvement of the N19 access road to Shannon Airport Phase 2-Phase 5. Phase 2 is complete and Phase 3 is nearing a close.
Eibhlín supports the environmental lead and is responsible for the preparation of the EIAR and interaction with An Coimisiún Pleanála and other key stakeholders. Eibhlín is responsible for preparing draft sections of the upfront chapters of the EIAR and for editing all chapters from technical specialists.
- **Water Framework Directive (WFD) Compliance Assessments (2025, 2026)**
A WFD Compliance Assessment report is a technical assessment required under the EU Water Framework Directive (WFD) to determine whether a proposed or existing activity could negatively affect the ecological or chemical status of a water body. Eibhlín has authored a WFD Compliance Assessment report for an operational farm and a historic landfill.
- **Opera One, Limerick Twenty Thirty, 2023- 2025**
Preparation of a Resource Waste Management Plan for Contract B (basement and building). Advice on Article 27 and Article 28. Review of EPA guidance following learning outcomes from the project for feedback to the EPA. Eibhlín was responsible for writing the plan for approval by Tanya Ruddy. She attends all meetings and will

Key Information

Qualifications

First Class Honors BA in
Environmental
Science, Trinity College Dublin ,2020

Master of Engineering Science
(MEngSc), University College Dublin,
2025

Employment History

2023 – Present

Fehily Timoney & Company
Project Environmental Scientist

2020-2023

University College Dublin
Research student as part of the
DAFM-funded HydroSED project

2019

Irish Water
Intern



Eibhlín Vaughan

Project Environmental Scientist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

be responsible for providing feedback to the client for the EPA on their guidelines for preparation of resource management plans.

- **N56 Doonwell to Drumbrick Improvement Scheme, 2021-Ongoing.**

FT was appointed by Donegal County Council to bring the scheme through Phase 2 to Phase 5. We are in phase 3 at preliminary design stage having selected a preferred option. Eibhlín is working alongside Tanya who is the environmental lead for the appraisal and will be responsible for delivery of the NIS and EIAR if required to accompany the planning application to An Coimisiún Pleanála. Eibhlín will assist with the coordination of the planning application and interaction with design team during this current phase.

- **Completion of AERs and EPR Population for four AES Recycling EPA licenced facilities (2026)**

Eibhlín was responsible for the completion of Annual Environmental Reports (AERs) for four AES Recycling EPA licenced facilities in 2026. This involved reviewing monitoring results for compliance with licence conditions, preparing regulatory submissions to the EPA, addressing agency queries, and ensuring all reports were completed accurately and within statutory deadlines.

- **AER, EPR and Compliance Management, Arthurstown (2026)**

Eibhlín was responsible for the completion of the AERs and Environmental Performance Reports (EPRs) for Arthurstown Landfill, a South Dublin County Council closed landfill facility. licenced facilities in 2026. This involved coordinating data collection from site teams and laboratories, reviewing monitoring results for compliance with licence conditions, preparing regulatory submissions to the EPA, addressing agency queries, and ensuring all reports were completed accurately and within statutory deadlines.

Eibhlín

- **SEA/AA of 25 Local Authority Climate Action Plans, 2024**

Eibhlín contributed to the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) of 25 Local Authority Climate Action Plans. This role involved developing a detailed understanding of project requirements, county-specific landscape policies, and historical emissions profiles, alongside undertaking baseline environmental research. Eibhlín supported the preparation of SEA Scoping Reports and SEA Environmental Reports, carried out environmental impact assessments of Plan actions and objectives, assisted in the preparation of statutory consultation materials, and supported the collation and analysis of submissions and consultation responses.

- **Development of Air Quality Roadmap, Reporting, and Guidance Document, 2024**

Eibhlín was part of a small team responsible for development of a roadmap and guidance document for use by the Department of Environment, Climate and Communications (DECC). These documents were for internal use to aid departmental reporting on air quality within the government.

- **Ecomondis Waste Permit and Review 2025**

Eibhlín was responsible for the new and review application forms for waste permits for Greyhound Household and Ecomondis waste management services. A waste permit is required for specified waste recovery or disposal activities that are not large or complex enough to need an EPA waste licence but still require regulatory oversight. These permits are issued by the National Waste Collection Permit Office.

- **Kilmorna Solar Farm, 2024**

Preparation of a Resource Waste Management Plan for Kilmorna Solar Farm to ensure sustainable practices throughout the project's lifecycle. This involves assessing materials required for construction, operation, and decommissioning, as well as identifying potential waste streams.

CURRICULUM VITAE

Julian Keenan B.Eng. (Hons), MIEI, MCIHT

Position

Director

Trafficwise Ltd.
Traffic and Transportation Planning Consultants

Professional Qualifications

Bachelor of Engineering (Hons) in Civil Engineering
University of Galway, 1990

Professional Memberships

Member of Engineers Ireland (MIEI)

Member of the Chartered Institution of Highways and Transportation (MCIHT)

Career Summary

Since graduating in 1990, Mr Keenan has specialised in the assessment, design and management of transportation infrastructure and development-related traffic impacts. He has extensive experience in the preparation of Traffic and Transport Assessments, Environmental Impact Assessment Reports, Road Safety Audits, Appropriate Assessment documentation, Mobility Management Plans, planning application documentation and expert witness evidence.

In 2002, Mr Keenan established Trafficwise Ltd., a specialist transportation planning consultancy providing services throughout Ireland. Prior to establishing Trafficwise Ltd., he worked with a number of engineering consultancies and local authorities in transportation planning, highway design and infrastructure development.

Mr Keenan has acted as Project Director and Lead Transportation Consultant on a wide range of projects including:

- Renewable energy developments;
- Anaerobic digestion facilities;
- Bioenergy and waste-to-energy facilities;
- Waste processing and transfer facilities;
- Engineered landfill facilities;
- Industrial and manufacturing developments;
- Strategic employment developments;
- Residential developments;
- Healthcare developments;

- Educational facilities;
- Quarry and extractive industry developments;
- Road infrastructure projects;
- Urban regeneration schemes.

His experience encompasses both the construction and operational phases of development and includes assessment of traffic generation, HGV activity, road safety, accessibility, sustainable transport, cumulative effects and environmental impacts.

Areas of Expertise

- Traffic and Transport Assessments (TTA)
 - Environmental Impact Assessment Reports (EIAR)
 - Geometric Roads Design
 - Road Safety Audits
 - Road Safety Impact Assessments
 - Transportation Planning
 - Development Planning
 - Junction Capacity Assessment
 - Traffic Forecasting
 - Construction Traffic Management
 - Sustainable Transport Planning
 - Mobility Management Plans
 - Expert Witness Services
 - Planning Appeals and Oral Hearings
 - Arbitration and Litigation Support
-

Environmental Assessment Experience

Mr Keenan has prepared and reviewed Traffic and Transportation Chapters for numerous EIAR developments throughout Ireland. This work has included assessment of likely significant effects arising from:

- Construction traffic;
- Operational traffic;
- Heavy Goods Vehicle movements;
- Road safety impacts;
- Vulnerable road user impacts;
- Severance effects;
- Driver delay;
- Pedestrian amenity;
- Sustainable transport accessibility;
- Cumulative development impacts.

Environmental assessments have been undertaken in accordance with:

- Planning and Development Act 2000 (as amended);
- European Union EIA Directive;
- EPA Guidelines on the Information to be Contained in Environmental Impact Assessment Reports;

- EPA Draft Advice Notes for Preparing EIARs;
- TII Traffic and Transport Assessment Guidelines (PE-PDV-02045);
- Design Manual for Urban Roads and Streets (DMURS);
- Relevant TII Publications and Standards;
- National Planning Framework;
- Regional Spatial and Economic Strategies;
- Local Authority Development Plans.

Representative Relevant Projects (Sample)

Renewable Energy, Bioenergy and Energy

Renewable Energy Plant, Inchera, Little Island, Co. Cork

Planning Ref. 15/4926 (23/5586 and 25/5034). Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock derived from organic wastes. Included roads design and facility layout design.

Renewable Energy Plant, Huntstown Road, Finglas, Dublin

Planning Ref. FW13A/0089 (FW24A/0063). Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock derived from organic wastes. Included roads design and facility layout design.

Renewable Energy Plant, Drum, Co. Monaghan

Planning Reg. Ref. 26/60018. Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock comprised of poultry. Included roads design and facility layout design.

Edenderry Power Plant, Co. Offaly

Planning Ref. 04/210 and subsequently 21/291. Traffic and Transportation Assessment and EIAR support for plant operation using biomass transported by road. Included roads design and facility layout design.

Anaerobic Digestion Facility, The Downs, Co. Westmeath

Current Application. Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock derived from organic wastes. Included roads design and facility layout design.

Anaerobic Digestion Facility, Stackallan, Co. Meath

Planning Reg. Ref. 24/333 (323522-25). Current An Coimisiún Pleanála Case. Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock derived from organic wastes. Included roads design and facility layout design.

Renewable Gas Facility, Cúil Na Móna Bog, Portlaoise, Co. Laois

Planning Ref. 19/530 (309293-21) Record No.2022-606JR. Traffic and Transportation Assessment and EIAR support for AD Plant with feedstock derived from organic wastes. Included roads design and facility layout design.

Green Gas Generation Limited, Gorteen Lower, Nurney, Co. Kildare

Planning Reg. Ref. 20/1117. AD Plant roads design and facility layout design.

Waste Management and Resource Recovery (Sample)

Drehid Waste Management Facility, Co. Kildare

Case Ref. PA09.317292. Traffic and Transportation Assessment and EIAR support for engineered residual landfill.

Knockharley Landfill Facility, Co. Meath

Planning Ref. 01/5006 (ABP PL17.125891), subsequently NA50453 and NA60336 (ABP PL17.220331) and ABP-PL17.PA0009 and SID Case Ref. ABP-303211-18. Traffic and Transportation Assessment and EIAR support for engineered residual landfill. Several applications since original project over 20yrs ago. Attendance at several Oral Hearings. Included roads design and facility layout design.

Ballynagran Engineered Landfill, Co. Wicklow

Planning Ref. 01/5285 (PL27.131213). Traffic and Transportation Assessment and EIAR support for engineered residual landfill. Included roads design and facility layout design.

East Galway Engineered Landfill, Co. Galway

Planning Ref. 02/3811(PL07.205181). Traffic and Transportation Assessment and EIAR support for engineered residual landfill. Attendance at Oral Hearing. Included roads design and facility layout design.

Healthcare Waste Treatment and Transfer Facility, Blarney, Co. Cork

An Coimisiún Pleanála Case No. 323930-25. Traffic and Transport Assessment and EIAR.

Soil Recovery Facility, Halverstown Townland, Kilcullen, Co. Kildare

Planning Ref. 24/60265. Traffic and Transport Assessment, EIAR and Roads Design.

Ballinclare Quarry, Inert Landfill Facility, Kilbride, Co. Wicklow.

Planning Ref. PA27.321255. Traffic and Transport Assessment, EIAR, Roads Design and Internal facility design.

Waste Processing and Transfer Facilities

Numerous planning and EIAR assessments undertaken throughout Ireland for Thorntons, Greenstar, Panda, City Bins Galway, A Plus Waste, KMK Recycling, Wilton Recycling, AES, ONYX, O'Hagan Waste, Oxigen.

Industrial and Commercial Development (Sample)

Traffic assessments for:

- Manufacturing facilities;
- Distribution centres;
- Industrial estates;
- Food production facilities;
- Technology parks;
- Enterprise centres;
- Employment-generating developments.

Kildare Village Outlet Phases I, II & III, Kildare Town, Co. Kildare

Planning Reg. Ref. 04/927 (Ph. I), Planning Reg. Ref. 12/61 (PL09.241321)(Ph. II), Planning Reg. Ref. 17/539(300795-18)(Ph. III). Traffic and Transportation Assessment and infrastructure design. Attendance at Oral Hearing for Ph. II.

Frontlands Distributor Road Design, Kells, Co. Meath

An Coimisiún Pleanála Case No. 304799-19. Roads design and preparation of TTA for Section 177AE Application on Behalf of Meath County Council.

Frontlands Mix Use Commercial Development, Kells, Co. Meath

Planning Reg. Ref. 26/60242. Roads design and preparation of TTA and EIAR for planning application comprising anchor Foodstore and other commercial buildings for town centre development.

Loughrea Shopping Centre, Loughrea, Co. Galway

Planning Reg. Ref. F04/4994. Roads design and preparation of TTA for planning application comprising anchor Foodstore and other commercial buildings for town centre development.

Waterford City Centre, Mixed Use Development (Brewery SC), Co. Waterford

Planning Reg. Ref. 06/526. Roads design and preparation of TTA for planning application comprising shopping centre mixed use development. Attendance at Oral Hearing.

Killiney Shopping Centre, Killiney, Co. Dublin

Roads design and preparation of TTA for planning application to redevelop shopping centre.

Logistics Warehousing, Hub Logistics Park, Bracetown, Co. Meath

Roads design and preparation of TTA and EIAR for planning application.

Local Distributor Road LDR6 Farganstown, Navan, Co. Meath

Roads design and preparation of TTA for Section 177AE application.

Boyne Village Enterprise Park, Farganstown, Navan, Co. Meath

Planning Reg. Ref. 22/1703(318533-22). Roads design and preparation of TTA for planning.

Laundry Warehouse, Boyne Village Business Park, Farganstown, Navan, Co. Meath

Planning Reg. Ref. 26/60226. Roads design and preparation of TTA for planning.

LRD 322 no. Dwellings, Neighbourhood Centre and District Park, Farganstown, Navan, Co. Meath.

Planning Reg. Ref. LRD0008. Road Design, TTA and EIAR for planning.

O'Briens Fine Foods, Timahoe East, Co. Kildare.

Planning Reg. Ref. 14/675. Road Design and TTA for planning.

Greenore Port Development, Greenore, Co. Louth

Planning Reg. Ref. 24/60294. Roads design and preparation of TTA and EIAR for planning application for Operation and Maintenance Facilities for offshore wind arrays in Irish Sea. Included roads design and facility layout design.

Healthcare and Educational Facilities (Sample)

Traffic assessments and EIAR support for:

- Nursing homes;
- Primary care centres;

Prudent Healthcare, Bunclody, Co Wexford

Roads design and preparation of TTA for planning application.

Hollister, Ballina, Co. Mayo

Planning Reg. Ref. P10/3054. Roads design and preparation of TTA for planning.

Jabil (Nypro), Corke Abbey, Bray, Co. Dublin

Roads design and preparation of TTA for planning.

Primary Care Centre, Balmoral, Navan, Co. Meath

Planning Reg. Ref. 24/60475. Roads design and preparation of TTA, MMP and RSA for planning.

Abbeybreafy Nursing Home, Clogher, Turlough Co. Mayo.

Planning Reg. Ref.: 09/1346. Roads design and preparation of TTA for planning.

Planning and Legal Experience (Sample)

Mr Keenan has extensive experience of the Irish planning system and has acted on behalf of developers, local authorities, state agencies and third parties.

He has represented clients at:

- An Bord Pleanála Oral Hearings;
- Planning Appeals;
- Strategic Infrastructure Development applications;
- Judicial Review proceedings;
- Property Arbitrations;
- Mediation proceedings;
- High Court proceedings.

Mr Keenan has provided expert witness evidence in relation to traffic engineering, transportation planning, highway design and road safety matters.

N6 Galway City Ring Road 2018 – Oral Hearing

An Coimisiún Pleanála ABP-302848-18 and ABP-302885-18. Representing: Boston Scientific, Ballybrit Business Park, Galway successfully diverted/realigned Parkmore Link Road.

New Civic Plaza at College Green, Dublin 2 – Oral Hearing

An Coimisiún Pleanála Ref: PL29S.JA0039. Representing: Hanahoe Solicitors for businesses in Parliament Street opposed to the scheme on the ground of traffic and transportation impacts. Scheme refused permission by An Coimisiún Pleanála for insufficiently accurate assessment of traffic impact, negative impact on bus transport, inadequate provision for bus stops.

Slane Bypass - Oral Hearing

An Coimisiún Pleanála Case No. 17.HA0026. Representing: John Rogers SC opposing the proposed scheme on the ground of traffic impact east-west. Reason No.2 for refusal cites same.

Continuing Professional Development

Mr Keenan maintains professional competence through ongoing engagement with:

- Engineers Ireland;
- Chartered Institution of Highways and Transportation;
- Transport Infrastructure Ireland publications and standards;
- EPA guidance and environmental assessment practice;
- Current planning legislation and policy;
- Industry conferences and professional seminars.

Declaration

I confirm that the information contained within this Curriculum Vitae is true and accurate and demonstrates my qualifications, professional experience and competency to undertake the assessment of traffic and transportation effects for Environmental Impact Assessment Reports and associated planning applications.

Julian Keenan

B.Eng. (Hons), MIEI, MCIHT

Director
Trafficwise Ltd.



Janette Bligh

Senior Scientist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Janette holds a degree in BSc Environmental Geoscience (1st Class Hons.) from University of Birmingham and an MSc Environmental Engineering from Queen's University, Belfast.

Janette is a Senior Environmental Scientist based in the Dublin office with fourteen years of experience in environmental consultancy, including a particular focus on Environmental Impact Assessment (EIA), due diligence and site assessment. Janette's attention to detail and drive to proactively project manage enable her to quickly develop a comprehensive understanding of the key requirements of each project and ensure both efficiency and the production of high-quality deliverables.

She is currently co-ordinating EIA's within the roads and power sectors. Janette has previously produced various technical EIA chapters, been responsible for oversight and auditing of environmental remedial contractors, has provided consultancy support to industrial and pharmaceutical clients with regards to Industrial Emissions (IE) licensing requirements and has been managing site selection / due diligence services for confidential data centre projects.

Key Skills

Janette has experience in the following key areas:

- Environmental Impact Assessment
- Environmental due diligence
- Contaminated land risk assessment
- Waste Soil Classification

Previous Experience Essentials for this Project

- **Various EIAR and NIS reviews for DLR and Fingal County Council, Ongoing.**
Project Manager with responsibility for coordinating an inter-disciplinary review of EIAR and NIS for various developments, on behalf of Dún Laoghaire Rathdown and Fingal County Council. Janette was responsible for liaising with a wide team and coordinating the review of all EIAR chapters, including the Surface Water and Hydrology, Biodiversity, Land and Soils, Traffic and Transport, Noise and Air Quality chapters. Janette has been directly responsible for reviewing Introductory chapters, Population and Human Health, Geology and Hydrogeology, and Surface Water and Hydrology chapters of the EIAR.
- **N19 Shannon Airport Airport Access Road Improvement, Ongoing.**
FT was appointed as engineering and environmental consultants to Clare County Council for the improvement of the N19 access road to Shannon Airport Phase 2-Phase 5. Janette was responsible for the preparation of the Population and Human Health, and Material Assets chapters of the EIAR.
- **Edenderry Power Plant, Ongoing.**
FT were appointed by Edenderry Power Limited to prepare and submit a Planning Application, an EIAR and an NIS for the continued operation of Edenderry Power Plant to the end of 2040. Janette is acting as Deputy Project Manager to assist with coordinating the completion of the EIAR.

Key Information

Qualifications

MSc Environmental Engineering,
Queen's University, Belfast,
2011-2013

BSc Environmental Geoscience (1st
Class Hons.)
University of Birmingham
2008-2011

Employment History

2023 – Present

Fehily Timoney & Company
Senior Scientist

2022 – 2023

AECOM Ireland Ltd
Principal Environmental Scientist

2017 – 2022

AECOM Ireland Ltd
Senior Environmental Scientist

2014 – 2017

RSK Ireland
Environmental Scientist

2012 – 2013

Pentland Macdonald Ltd
Environmental Technician



Janette Bligh

Senior Scientist



DESIGNING AND DELIVERING
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- **140 MW Open Cycle Gas Turbine (OCGT) and 570 MW CCGT Power Plant, 2023**

Prior to joining FT, Janette was responsible for EIAR co-ordination for the proposed development, liaising with the client, design team and relevant stakeholders. Janette successfully delivered three nights of community engagement evenings which were well received by the local community. Janette also drafted the introductory EIAR chapters.

- **Environmental Legislation and Permitting Process Review, Confidential Client, Ireland, 2023**

Janette managed an environmental legislation and permitting process review for a confidential hyper scale client in Ireland. Janette liaised closely with several subject matter experts to ensure that the client was informed by a wealth of country-specific experience regarding the environmental and planning requirements in data centre permitting.

- **Site Selection/ Early Due Diligence, Confidential Client, Kingdom of Saudi Arabia, 2022**

Janette has assisted in managing a large multidisciplinary team in KSA. Janette has overseen site selection and early due diligence activities and been involved in client liaison.

- **EIAR Chapters for various road developments across Ireland, 2018-2021**

Janette has been involved in the production of Land, Soils, Geology and Hydrogeology, and Water chapters for several road developments across Ireland. For each project, in order to produce robust chapters, Janette successfully liaised with various members of the design team, co-ordinated with geotechnical engineers where relevant and undertook detailed baseline studies to fully inform the impact assessment.

- **Risk Assessment and EIAR Chapters for ESB sites, ESBI, Dublin, 2019**

Janette undertook desktop reviews of available environmental information and produced site investigation scopes for several ESB sites in Dublin to define the scope of environmental site investigation works required to inform a Generic Quantitative Risk Assessment (GQRA) and soil waste classification. Janette produced EIAR Land, Soils, Geology and Hydrogeology chapters for two sites in ESB ownership. During the production of each chapter, Janette undertook a thorough review of all available relevant environmental reports for each site, giving her a unique knowledge of each site history with regards to land and groundwater.



Rebecca Dunlea

Senior Scientist



DESIGNING AND DELIVERING
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Profile

Rebecca holds a BA (Hons) in Geography and Sociology and an MA in Geography from University College Cork. She also has an MSc in Sustainability (Environmental Consultancy & Project Management) from the University of Leeds. She has over 9 years' environmental consultancy experience in Environmental Impact Assessments (EIA) – EIAR coordination and project management, EIAR chapters and reporting, Strategic Environmental Assessments (SEA) and field experience in surface water and groundwater sampling. She is currently a Senior Scientist in Fehily Timoney and Company.

Key Skills

- Environmental Impact Assessment (EIA)
- Strategic Environmental Assessment (SEA)
- EIAR Coordinator
- Project Management
- Environmental Monitoring

FT Experience

- **Powerstown Bioenergy, Co. Carlow – ongoing**
Rebecca prepared the Planning and Policy chapter for the EIAR.
- **Wilton Waste Recycling Ltd. Corranure – ongoing**
The proposed development is seeking an extension and intensification of the existing Corranure Processing and Transfer Facility (WPTF) in Co. Cavan. Rebecca's role includes drafting chapters (description of development, Planning and Policy, Population and Human, Material Assets and CEMP) and reviewing of chapters for the EIAR and coordination on the project.
- **Wilton Scrap Metals Ltd. Naas – ongoing**
The proposed development is seeking an extension and intensification of the existing Naas WPTF in Co. Kildare. Rebecca's role includes drafting and reviewing of chapters for the EIAR and coordinating input across the project team.
- **N56 Doonwell to Drumbrick Road Scheme – ongoing**
The proposed scheme is seeking to carry out an online upgrade of the existing N56 road in Co. Donegal. Rebecca's role includes preparing the EIA Screening report, drafting the Planning and Environmental Report and coordinating input across the project team.
- **Greenways and Road Schemes – ongoing**
Rebecca is working on a number of proposed greenway and road schemes, contributing to the environmental components of both the Constraints Report and the Options Report.
- **John Street Grain Store, New Ross**
The proposed development related to improvements to land at the rear of the Grain Store, John Street, New Ross, Co. Wexford. Rebecca's role included drafting the EIA Screening Report and the CEMP, as well as coordinating input across the project team.
- **N19 Shannon Airport Access Road (SAAR) Improvement Scheme**
The proposed scheme is seeking to provide a high-quality road improvement scheme on the N19 SAAR, on approach to Shannon Airport. Rebecca's role included drafting and reviewing of chapters for the EIAR and coordinating input across the project team.
- **Outdoor Recreational Facility, former Marlinstown Landfill – Feasibility Report, 2024**
The project researched the feasibility of a potential outdoor recreational / amenity facility at the former Marlinstown Landfill, on the outskirts of Mullingar town, that will

Key Information

Qualifications

BA (Hons) Geography & Sociology,
University College Cork, 2006.

MA Geography (Coastal Management
& GIS) University College Cork, 2007.

MSc Sustainability (Environmental
Consultancy & Project Management),
University of Leeds, 2014.

Professional Memberships

Member of the Chartered Institution
of Water and Environmental
Management (MCIWEM)

Employment History

2024 – Present

Fehily Timoney & Company
Senior Scientist

2021 – 2024

AECOM Ireland Limited
Principal Environmental Consultant

2018 – 2021

Brady Shipman Martin
Environmental Consultant

2018 – 2018

Malone O'Regan Environmental
Environmental Consultant

2016 – 2018

Jacobs Engineering
Graduate Environmental Consultant



Rebecca Dunlea
Senior Scientist



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provide an alternative public outdoor amenity space for the local community. Rebecca's role included drafting the feasibility report, stakeholder engagement and coordinating input across the project team.

Previous Experience

- **600 MW Combined Cycle Gas Turbine (CCGT) Power Plant, 2024**
Prior to joining Fehily Timoney (FT), Rebecca worked on the EIAR and planning application for a CCGT Power Plant in Co. Kerry. Rebecca was responsible for coordinating the project and reviewing the EIAR. She was also involved in drafting chapters of the EIAR, CEMP and assisting with the planning application. The application was submitted to An Bord Pleanála in 2024 and permission was granted.
- **140 MW Open Cycle Gas Turbine (OCGT) and 570 MW CCGT Power Plant, 2024**
Prior to joining FT, Rebecca worked on the EIAR as part of a planning application for an OCGT and CCGT Power Plant and electricity grid connection in Co. Offaly. Rebecca was responsible for drafting and reviewing the EIAR. The application was submitted to An Bord Pleanála in 2024.
- **299 MW OCGT Power Plant, 2023**
Prior to joining FT, Rebecca worked on the EIAR as part of a planning application for an OCGT Power Plant on in Co. Cork. Rebecca was responsible for coordinating and reviewing the EIAR and CEMP. She was also involved in drafting chapters of the EIAR and assisting with the planning application. The application was submitted to Cork County Council in 2023, and planning permission was granted.
- **264 MW Temporary Emergency Generation (TEG) Power Plant, 2023**
Prior to joining FT, Rebecca worked on the planning application for a TEG Power Plant, in Co. Offaly. The site was designated for the TEG development under new Irish legislation the 'Development (Emergency Electricity Generation) Act 2022', after a request from the Irish Authorities to support security of supply. Rebecca was responsible for coordinating the planning application, drafting the Environmental Report submitted as part of the application. The application was submitted to An Bord Pleanála in 2023 and permission was granted.
- **Cork Area Commuter Rail, Co. Cork, 2022**
Prior to joining FT, Rebecca coordinated and completed the Environmental Options Assessment report and the Multi-Criteria Assessment (MCA) for the Cork Area Commuter Rail project.
- **Strategic Housing Development (SHD) EIARs, 2019-2021**
Prior to joining FT, Rebecca worked on a number of EIARs for Strategic Housing Developments in Co. Dublin. Rebecca was responsible for coordinating the technical teams and reviewing these EIARs.
- **Proposed Expansion of Production Facility, 2020**
Prior to joining FT, Rebecca worked on the EIAR for a proposed expansion of a production facility in Co. Dublin. Rebecca was responsible for coordinating and reviewing the EIAR. She was also involved in drafting chapters of the EIAR and assisting with the planning application. The application was submitted in 2020, and planning permission was granted.
- **Overburden Management Facility, 2019**
Prior to joining FT, Rebecca worked on the EIAR for an Overburden Management Facility in Co. Meath. Rebecca was responsible for drafting chapters, coordinating and reviewing the EIAR. The application was submitted in 2020, and planning permission was granted.
- **Kerdiffstown Landfill Remediation Project, 2018**
Prior to joining FT, Rebecca worked on the EIAR for the Kerdiffstown Landfill Remediation Project in Co. Kildare. Rebecca was responsible for the groundwater and surface water monthly monitoring at the site and assisting with the EIAR coordination and planning application.
- **Water Supply Project (WSP) - Eastern and Midlands Region 2016-2018**
Prior to joining FT, Rebecca worked on the Scoping report and EIAR for the Water Supply Project (WSP). Her role involved assisting on the scoping assessment, consultation process and the surface water sampling for the watercourse crossings along the route.

Jovanna Arndt, BSc Env Sci, PhD, AMIAQM, AMIEnvSc

Principal Consultant — AWN Consulting, A Trinity Consultants Team, Ireland

AREAS OF SPECIALIZATION

- ▶ Principal Air Quality Consultant at AWN Consulting.
- ▶ Over 9 years of Experience in the assessment and reporting of air quality and climate impacts associated with industrial and infrastructural projects.
- ▶ Extensive experience in air dispersion modelling for Industrial Emissions (IE) licence applications to the EPA.
- ▶ Detailed knowledge of air quality standards, air dispersion modelling guidance and impact assessment methods.
- ▶ Detailed knowledge of TII published Air Quality and Climate Guidance and Standards (PE-ENV-01104, PE-ENV-01105, PE-ENV-01106, PE-ENV-01107, GE-ENV-01106 and GE-ENV-01107).
- ▶ Detailed knowledge of EPA Air Quality Guidance Notes AG4 "Air Dispersion Modelling from Industrial Installations" and AG9 "Odour Emissions Guidance Note"
- ▶ Experience in use of emissions inventories and tools, including TII Carbon Emissions Tool, TII Roads Emissions Model (REM), CERC-ADMS, OneClick LCA Carbon Designer Tool Ireland, and various other carbon tools.
- ▶ Extensive experience in the use of software packages such as AERSCREEN, AERMOD, TANKS for the air quality assessments of major infrastructural and industrial projects.
- ▶ Extensive experience in the presentation of technical information in the written form.

SUMMARY OF EXPERIENCE

Principal Environmental Consultant with the responsibility for Air Quality and Climate impact assessments.

Preparation of Air Quality and Climate assessments (baseline monitoring, technical assessments and chapter) for numerous EIARs.

Experience in air dispersion modelling using CERC ADMS roads modelling and USEPA approved AERMOD dispersion software, modelling projects include data centre developments and thermal plume assessments for aircraft safety, EPA IE licence applications and various EIA reports.

Project types include commercial, residential, large infrastructure including road, greenway and active travel schemes, data centres, industrial facilities including pharmaceutical, chemical, food production, energy centres, quarries, distilleries, anaerobic digestors, WwTP, as well as renewable energy developments such as wind (onshore and offshore), solar and battery storage farms.

EDUCATION

BSc Environmental Science, University College Cork
PhD in Atmospheric Chemistry, University College Cork

AFFILIATIONS

Associate Member of the Institution of Environmental Sciences (AMIEnvSc)
Associate Member of the Institute of Air Quality Management (AMIAQM)

TECHNICAL EXPERTISE

Anaerobic Digestors

Air quality and climate technical lead for a number of anaerobic digester developments at EIA planning stage. Assessments included determining the risk of construction dust emissions, the impact of traffic emissions on air quality, the benefit to climate due to the production of biomethane, biofertiliser and biogenic CO₂ and the potential vulnerability of the projects to climate change. Notable projects include:

- ▶ Bord Na Móna - Cúil Na Móna Anaerobic Digestion Facility (Planning ref. 309293)
- ▶ Nua Bioenergy - Lisheen Mine Site biomethane and bio-based fertilizer production facility (Planning ref. 2460936)
- ▶ Stream BioEnergy Ireland Ltd. - renewable biogas plant Little Island, Co. Cork (Planning ref. 255034)
- ▶ Stream BioEnergy Ireland Ltd. - renewable biogas plant Drum, Co. Monaghan (Planning ref. 2660018)

Renewable Energy Developments

Air quality and climate technical lead for a number of renewable energy developments and grid connections at EIA planning stage. Assessments included determining the risk of construction dust emissions, the impact of traffic emissions on air quality, the benefit to climate due to the production of renewable electricity and the potential vulnerability of the projects to climate change.

Industrial Emissions Licensing

Primary air quality expert undertaking detailed air dispersion modelling using AERMOD software for a range of industrial clients including pharmaceutical, data centre, energy and chemical sites. Projects included completing dispersion modelling of various pollutants including odour emissions and writing detailed technical results for submission to the Environmental Protection Agency (EPA) as part of the IE licence application process. This also included advising clients of applicable emission limit values to ensure compliance with legislation and Ambient Air Quality Standards.

Residential and Commercial Developments

Lead expert in the preparation of air quality and climate EIAR chapters for various residential and commercial developments throughout Ireland. Air quality assessments included construction dust assessments and assessment of traffic emissions. Construction dust assessments were conducted using the Institute of Air Quality Management (IAQM) approach outlined in *Guidance on the Assessment of Dust from Demolition and Construction* (2024) to assess the risk of dust impacts from construction works and the recommended mitigation measures required for the project to ensure no significant impacts occurred. Air dispersion modelling of traffic emissions was carried out using the Transport Infrastructure Ireland (TII) Road Emissions Model (REM) online calculator tool. Climate impact assessments included quantification of greenhouse gas (GHG) emissions associated with the development over its lifecycle from construction through to operational phase using a variety of online calculator tools. Climate change vulnerability assessments were also included to identify the vulnerability of the proposed project to future climate change hazards.

Transportation Schemes

Air quality and climate technical lead for road scheme developments throughout Ireland. This involved assessments of proposed road schemes from Constraints stage, through to Route Selection and EIA planning stage. Assessments were undertaken in line with the TII guidance documents PE-ENV-01106, PE-ENV-01107, PE-ENV-01104 and PE-ENV-01105. Additionally an air quality consultant for Clean Air Zone feasibility studies and major rail infrastructure in the UK, and provided Air Quality Action Plan (AQAP) and Air Quality Management Area (AQMA) support to several UK councils, in line with DEFRA, JAQU and DMRB guidance.

PUBLICATIONS AND PRESENTATIONS

Arndt, J., Sciare, J., Mallet, M., Roberts, G. C., Marchand, N., Sartelet, K., Sellegri, K., Dulac, F., Healy, R. M., and Wenger, J. C.: Sources and mixing state of summertime background aerosol in the north-western Mediterranean basin, *Atmos. Chem. Phys.*, 17, 6975–7001, <https://doi.org/10.5194/acp-17-6975-2017>, 2017.

J. Arndt, K. Deboudt, A. Anderson, A. Blondel, S. Eliet, P. Flament, M. Fourmentin, R.M. Healy, V. Savary, A. Setyan, J.C. Wenger. Scanning electron microscopy-energy dispersive X-ray spectrometry (SEM-EDX) and aerosol time-of-flight mass spectrometry (ATOFMS) single particle analysis of metallurgy plant emissions, *Environmental Pollution*, Volume 210, 2016, Pages 9-17, ISSN 0269-7491, <https://doi.org/10.1016/j.envpol.2015.11.019>.

EMPLOYMENT HISTORY

2017 – 2020	AECOM – Air Quality Consultant
2020 – Present	AWN Consulting – Senior/Principal Environmental Consultant

Lee Shelton, CEnv, BSc (Hons), MIEEnvSc, MIAQM

Principal Climate and Air Quality Consultant — AWN Consulting, A Trinity Consultants Team, Ireland

AREAS OF SPECIALISATION

- ▶ Principal Climate and Air Quality Consultant at AWN Consulting.
- ▶ 11 years of experience in environmental assessment change across a wide range of industries.
- ▶ Experienced in the preparation of EIAR chapters, Environmental Statements, Environmental and Social Impact Assessment
- ▶ Preparation of assessments for determination by local, national and international bodies including EBRD
- ▶ Experience in greenhouse gas accounting and reporting.
- ▶ Experience in use of carbon emissions inventories and tools, including TII Carbon Emissions Tool, OneClick LCA Carbon Designer Tool and various other carbon tools
- ▶ Extensive experience in air quality dispersion modelling and assessment.
- ▶ Highly experienced in the use of ADMS, ADMS-Roads, CALPUFF, Aermid, DMRB and DNV GL PHAST for air quality dispersion and accident modelling assessment.
- ▶ Highly experienced in air quality monitoring for environmental assessment purposes including the use of diffusion tubes, Osiris monitors, DM-11 monitors, dust monitoring systems and indoor air quality monitoring
- ▶ Experience in the communication of assessments and of air quality issues to multiple audiences

SUMMARY OF EXPERIENCE

Principal Climate and Air Quality Consultant for AWN focusing on Climate assessments for EIARs for national infrastructure projects including housing developments, roads, rail and windfarms.

Experience in the quantification of embodied carbon for lifecycle carbon assessments and assessment of the risk to developments from climate change.

Extensive experience in the modelling and assessment of air pollutant emissions within the UK and internationally, both for local level projects and nationally important infrastructure.

Experience in the use of ADMS, ADMS-Roads, CALPUFF, Aermid, DMRB and PHAST.

Project management experience across large range of projects in the UK.

EDUCATION

BSc (Hons) Environmental Protection from Scotland's Rural College through the University of Edinburgh

AFFILIATIONS

Chartered Environmentalist through the Society for the Environment

Full Membership of the Institute of Environmental Sciences (MIEEnvSc)

Full Membership of the Institution of Air Quality Management (MIAQM)

TECHNICAL EXPERTISE

EIAR preparation

Preparation of EIAR chapters for residential and commercial developments, renewable energy and rail infrastructure in Ireland. Climate impact assessments included quantification of greenhouse gas (GHG) emissions associated with the development over its complete lifecycle, an assessment of the risk to developments from the changes posed by global climate change, followed by determination of significance of effect based on results of the data analysis.

National Infrastructure Projects

Lead air quality assessor in applications for the installation of large scale power grid installations in the UK. This includes applications through the UK Planning Inspectorate for Development Consent Orders and subsequent examination support for electricity infrastructure both above and below ground. This involves the use of qualitative construction dust assessment methods and the use of dispersion modelling software such as ADMS and ADMS-Roads to fully quantify local impacts within areas highly sensitive to changes in pollutant concentrations.

Industrial Emissions Permitting

Lead air quality modeler for industrial permit applications within both the English and Scottish legislative environments. These involved energy production and various factory manufacturing processes using dispersion modelling software such as ADMS. Impacts according to the emission limit values and concentrations at receptors were included along with impacts from the excess deposition of nutrients from air pollution at sensitive nature conservation sites.

Transport Schemes

Air quality assessment from screening and scoping stages through to environmental assessment and monitoring of construction. The work was undertaken within the Transport Scotland STAG processes, National Highways TAG and DMRB modelling environments. The work involved the use of GIS for screening and scoping followed by the use of dispersion modelling software such as ADMS-Roads to determine impacts upon local and regional pollutant concentrations. Monitoring included the use of diffusion tube monitoring and depositional dust monitoring.

International Work

Various types of work within the nuclear industry, mineral extraction industries, renewable hydropower generation and oil and gas extraction. The work involved the dispersion modelling of radionuclides, fossil fuel emissions and fugitive dust dispersion modelling within a variety of regulatory environments. This often involved the use of UK, EU, USA and Russian standards to fill in for areas that were not covered by national regulations in order to satisfy funding requests to organisations such as the World Bank and European Bank for Reconstruction and Development. Dispersion modelling involved the use of ADMS and CALPUFF software for large scale, nationally significant projects.

Residential and Commercial Developments

Climate assessor or lead air quality assessor for planning applications and EIAR chapters for routine residential and commercial developments in Ireland and the UK. Climate assessment for EIAR included

the use of carbon factors from Transport Infrastructure Ireland and lifecycle assessment tools for the quantification of embedded carbon associated with developments. Assessments of the vulnerability of developments to risks resultant from the impacts of climate change was undertaken following processes guided by Transport Infrastructure Ireland and the Environmental Protection Agency.

Air quality assessment involved the use of the Institute of Air Quality Management qualitative dust risk assessment methodology and quantitative assessment of the emissions associated with changes in traffic volumes and changes in emissions as a result of fossil fuel boilers for the generation of heat and power.

EMPLOYMENT HISTORY

2015 – 2017	Amey plc – Graduate Environmentalist, Assistant Environmentalist, Environmental Consultant
2018 – 2023	WSP UK Ltd – Senior Air Quality Consultant, Principal Air Quality Consultant
2023 – 2025	Sweco UK Ltd – Principal Air Quality Consultant
2026 – Present	AWN Consulting –Principal Climate and Air Quality Environmental Consultant

Sarah Berry, BSc

Principal Climate Consultant — AWN Consulting, A Trinity Consultants Team, Ireland

AREAS OF SPECIALISATION

- ▶ Principal Climate Consultant at AWN Consulting.
- ▶ 9 years of experience in sustainability and climate change across a wide range of industries.
- ▶ Extensive experience in greenhouse gas accounting and reporting.
- ▶ Detailed knowledge of TII published Climate Guidance and Standards (PE-ENV-01104, PE-ENV-01105, PE-ENV-01106).
- ▶ Experience in use of emissions inventories and tools, including TII Carbon Emissions Tool, OneClick LCA Carbon Designer Tool and various other carbon tools.
- ▶ Experience in climate risk and vulnerability modelling and forecasting.
- ▶ Project management experience including liaison with Competent Authorities, stakeholders and regulators, ensuring compliance with legislation and funding rules.

SUMMARY OF EXPERIENCE

Principal Climate Consultant for AWN focusing on Climate assessments for EIARs for national infrastructure projects including housing developments, roads, rail and windfarms.

Significant experience of greenhouse gas reporting and audit across a wide variety of sectors (data centres, industrial facilities, hospitals, manufacturing, distilleries, power stations, wastewater treatment works, airports).

Project management experience across large residential projects in the UK.

EDUCATION

BSc Physical Geography, University of Leeds

PgCert Business Administration, University of Chester

AFFILIATIONS

Member of the Institution of Sustainability and Environmental Professionals (ISEP)

CERTIFICATIONS

ISEP Certificate in Environmental Management (formerly IEMA)

TECHNICAL EXPERTISE

Environmental Impact Assessment preparation

Climate lead in the preparation of EIAR chapters for residential developments, renewable energy infrastructure, roads and wastewater treatment works in Ireland. Climate impact assessments included quantification of greenhouse gas (GHG) emissions associated with the development over its lifecycle, followed by determination of significance of effect based on results of the data analysis and mitigation measures. Climate Change Risk Analysis (CCRA) modelling to determine vulnerability of the development to future climate scenarios.

Climate Risk and Vulnerability Assessment

Preparation of CRVAs for large residential developments aligned with UK Green Building Council (UKGBC) methodology where required. Establishment of historical climate baselines and forecasted climate scenarios based on varying RCPs. Determination of essential mitigation measures and adaptation measures to protect the long-term performance and resilience of projects to future climate change

Greenhouse gas monitoring, reporting and verification

Lead Greenhouse Gas Auditor conducting strategic sector-specific GHG audits, both on-site and remotely, across diverse industries (incl. data centres, peaking plants, industrial operations, manufacturing) delivering tailored verification services that uphold environmental standards and regulatory frameworks.

Greenhouse gas permitting

Operations Director delivering high-quality greenhouse gas and regulatory compliance services, aligned with UK and European legislation e.g. Emissions Trading System.

Residential developments

Project Manager for retrofit of residential developments aligned with UK government's Social Housing Decarbonisation Fund.

EMPLOYMENT HISTORY

2025- Present	AWN Consulting- Principal Climate Consultant
2022- Present	Swan Energy- Chair of the Board of Trustees
2023 – 2025	WM Morrisons- Sustainability Manager
2021- 2023	Accent Housing- Sustainability Manager
2016- 2023	Swan Energy Ltd- Sustainability Analyst, Carbon Consultant, Operations Director



John Cullen

Senior Acoustic & Environmental Engineer



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Profile

John is a Senior Acoustic & Environmental Engineer with Fehily Timoney & Company. He holds a BAgSc in Agri-Environmental Science from University College Dublin, a P.Grad.Dip 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 Institute of Engineers Ireland.

John has extensive experience in the delivery of Environmental Impact Assessment Report (EIAR) Noise & Vibration Chapters for a wide range of developments throughout Ireland, including proposed waste facilities, renewable energy projects, including wind farms, solar farms, battery storage projects and electricity and gas grid infrastructure projects, proposed road projects and residential & industrial developments. He has experience providing technical acoustic and environmental input into Planning Applications, Requests for Further Information (RFIs) and the legal response for Judicial Reviews.

He has vast experience in carrying out environmental noise surveys and assessments on behalf of a wide range of clients. He has completed noise monitoring programmes, computational noise models, noise impact assessments and noise management plans and mitigation schemes for a wide range of projects on behalf of public and private sector clients. John has carried out in-situ acoustic measurements of road noise barriers to determine acoustic performance of barriers on major roads throughout Ireland, including sound reflection (EN 1793-5) and airborne sound insulation (EN 1793-6), and is a co-author of the research paper titled “*Monitoring of Acoustic Performance of Noise Barriers along Roads in Ireland*”, presented at Transport Research Arena (TRA) 2024.

John has carried out 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 sound insulation tests and building acoustics assessments for a range of high-profile residential and commercial developments in Ireland, the UK and Europe.

Previous Experience Essentials For This Project

• Fehily Timoney and Company, 2022 – Ongoing

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

John has experience in the preparation and delivery of Environmental Impact Assessment Report noise chapters for a wide range of developments, completing detailed 3D computational noise models and noise impact assessments for proposed developments, and carrying out in-situ acoustic measurements of noise barriers throughout Ireland.

Recent projects include: Noise impact assessment for proposed wind farm development in Co. Offaly, noise impact assessment for Ballynahone Long Duration Energy Storage (LDES) scheme in Co. Donegal, noise impact assessment for proposed healthcare waste facility in Co. Cork, noise impact assessment and IE Licence application for a 250,000 TPA waste facility in Co. Dublin, noise impact

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) (BAgSc) University College Dublin
2009 – 2013

Professional Memberships

Institute of Engineers Ireland (MIEI)
Institute of Acoustics (MIOA)
Institute of Environmental Sciences (MIEnvSc)

Employment History

2022- Present

Fehily Timoney & Company
Senior Acoustic & 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 Acoustic & Environmental Engineer



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

assessment for Killough Solar Farm Co. Tipperary, Rosspile Solar Farm & BESS Co. Wexford, noise impact assessment for the N19 Shannon Airport Access Road Improvement Scheme, N56 Doonwell to Drumbrick Road Scheme, and noise surveys and assessment for Anaerobic Digestion (AD) plants in Co. Laois and Roscommon.

John has undertaken baseline noise surveys and carried out construction & operational noise assessments including the preparation of detailed computational noise models for proposed Solar Farms and Wind Farms throughout Ireland, including: Tralee Solar Farm, Maganey Solar Farm, Kilcormac Solar Farm, Rahanisky Solar Farm, Ballylongford Solar Farm, Cortown Solar Farm, Derrynadarragh Wind Farm, Coom Green Energy Park, Shancloon Wind Farm, Cloonkett Wind Farm, Littleton Wind Farm, Barnadivane Wind Farm, Coom Green Park, Tullahennel Wind Farm, Dernacart Wind Farm and Coumragappul Wind Farm.

John has provided technical environmental support to Local Authorities, carrying out technical reviews and providing advice on EIARs and environmental noise documents submitted as part of planning applications for a wide range of projects, including residential, industrial, pharmaceutical and renewable energy developments.

- **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 for high profile offices and data centers throughout Ireland, the UK and Europe. Environmental consultancy services including air quality assessments, bund integrity assessments, and verification audits for the Bord Bia 'Origin Green' sustainability programme.

- **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. He was 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. Other duties included completing verification audits for the Bord Bia 'Origin Green' sustainability programme, carrying out occupational air, noise & vibration risk assessments, and indoor air quality assessments.

- **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.

- **Verdé 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.



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 industrial and energy sector projects.

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

Key Skills

Maureen has experience in industrial, energy and gas projects including:

- Noise measurement
- Operational noise prediction and assessment
- Construction noise prediction and assessment

Previous Experience Essentials for this Project

• Gas Projects 2014 to date

Assessed noise from a proposed anaerobic digester site for increased throughput at an existing site. Considered operational noise sources including site traffic, in addition to fixed plant such as pumps, blowers and mixers. Assessed construction noise including offsite construction traffic.

Completed multiple noise assessments for proposed compressed natural gas (CNG) installations. Main duties involved conducting noise surveys and AA Screening reports at multiple GNI sites across Ireland. At some of the more noise sensitive sites, a noise prediction and assessment of the proposed development was completed. Results of baseline and assessment summarised within a report for submission to the Local Authority as part of the planning process. Also, further information on the scheme was provided as part of the planning process.

Conducted a series of internal and external measurements at eleven Above Ground Installations (AGI's) in Ireland, following noise attenuation works. Noise measurements were undertaken externally for comparison with external environmental noise criteria. In addition, noise measurements were undertaken within on-site buildings for comparison with occupational noise criteria. Measured noise levels were compared with those prior to attenuation works to assess effectiveness of noise attenuation works.

Conducted a baseline noise survey at Whitegate AGI (Above ground installation), prior to construction works.

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 MacDonald
Senior Acoustic Consultant

2011 – 2011

Mott MacDonald
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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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. Sample project for AD site : Derryville Anaerobic Digester.

- **Industrial Noise Assessments, 2011 to date- 2019**

Predicted noise for a range of industrial facilities using 3-D noise modelling software for a range of industrial developments. including LNG (liquid natural gas) facilities, ammonia production plants, 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.

- **Energy Infrastructure Projects**

Involved in noise and vibration assessment for a range of energy infrastructure projects including windfarms, solar projects, BESS developments. Part of this includes assessment of energy grid infrastructure during the construction phase.

- Conducted baseline noise surveys to determine suitable noise limits for different energy infrastructure projects.
- Predicted operational noise from energy infrastructure projects 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, advised on noise mitigation or curtailment strategy to achieve noise limits.
- 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.
- Produced Environmental Impact Assessment Reports for developments, based on the operational and construction noise assessment as detailed above.
- Conducted post construction compliance noise survey and analysed data for comparison with noise limits to determine compliance with the planning criteria.

Sample projects include: Ballinagree Windfarm, Coom Green Energy Park, Fahy Beg Windfarm, Ballyvalode Solar Farm, Rahanisky Solar Farm, Knockraha Rotating Stabiliser, Co. Cork

- **Compliance Monitoring at EPA Licenced Facilities**

Monitored noise at EPA licensed facilities on behalf of the EPA 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 licence noise limits are exceeded. Assessed noise in line with EPA NG4 guidelines and BS4142 Methods for rating and assessing industrial and commercial sound.



Rita Mansfield

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Rita is an Associate Director (Ecology) and Project Manager at Fehily Timoney with nineteen 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 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 Essentials for this Project

Energy Services

- **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.
- **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.

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

Associate Director



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ENVIRONMENTAL SCIENCE
& PLANNING

- **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.
- **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.



Rita Mansfield

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **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).

- **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



Rita Mansfield

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **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. 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.



Rita Mansfield

Associate Director



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **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 Newtownmountkennedy to Ballynabarny road scheme.
2. Section C – new motorway services area on the existing M11 near Gorey, Co. Wexford.
3. Section D – upgrade to the Newlands Cross junction (N7 Nass Road junction with the Belgard / Fonthill Road [R113]) to a grade separated junction.



Rita Mansfield

Associate Director



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ENVIRONMENTAL SCIENCE
& PLANNING

- **East Coast Railway Line between MP19½ 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.



Barbara Kasl

Senior Ecologist



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Profile

Barbara holds a PhD (Animal, Plant and Environmental Sciences Department) and B.Sc. Hon. (Zoology and Botany Department) from the University of the Witwatersrand (Republic of South Africa). She was employed in the environmental sector in South Africa for 20 years, starting as an Environmental Assessment Practitioner (EAP) and ecological scientist, and developing into a dedicated terrestrial fauna specialist. She has worked in various sectors, including agriculture (animal and crop production), mining (extraction and processing), servitudes (roads, powerlines, storm water and sewage), energy (nuclear, solar and coal generated power and distribution) and town planning and development and has contributed her terrestrial fauna expertise to national, provincial, district and local municipal projects.

Barbara specializes in ecological impact assessment, landscape level fauna management, and technical report writing within the development sector. With 22 years' work experience she joins the Energy and Planning team at Fehily Timoney as a Senior Ecologist.

Key Skills

- Appropriate Assessments and associated reporting
- Ecological Impact Assessment (EclA)
- Biodiversity Chapters in Environmental Impact Assessment Reports (EIARs)
- Critical review of internal reports
- Terrestrial fauna field assessments – design, execution and data assessment
- Project Management, Project Co-ordination and Client Liaison
- Specialist, research- and topic-relevant technical notes / reports / protocols
- Mentoring, review and high-level overseeing of nature positive, green economy and BNG projects
- Mentoring early-career ecologists
- Working with World Bank Standards and IFC Equator Principals related to developing and operational mines in Africa

Previous Experience Essentials for this Project

IRISH PROJECTS

REVIEW AND COMPLIANCE

- **Cherrywood Biodiversity Plan and Planning Scheme Review, 2024/11-2025/03**
Take over the completion of the review of the Cherrywood Biodiversity Plan and incorporate the DLRCC Biodiversity Officer and, based on the outcome of the Biodiversity Plan review, review and draft changes to the Cherrywood Planning Scheme.
- **Cherrywood Lehaunstown Road & Plot A Access Section 17A Review, 2024/06**
Project management, review and assessment against relevant Cherrywood development and biodiversity plans, report compilation and relevant client liaison for Cherrywood Development Agency Project Team (DAPT), Dún Laoghaire-Rathdown County Council (DLRCC).
- **Cherrywood Housing Development Section 17A Due Review, 2024/06**
Cherrywood Housing Development Section 17A Due Review: Project management, review and assessment against relevant Cherrywood development and biodiversity

Key Information

Qualifications

PhD Animal, Plant and Environmental Sciences (upgraded M.Sc.),
University of the Witwatersrand, 2004
B.Sc. Hon. (Zoology and Botany)
University of the Witwatersrand 1998

Professional Memberships

Chartered Institute of Ecology and Environmental Management (CIEEM)

Member of the Irish Environmental Law Association (IELA)

Key Skills

Ecological impact assessment & management

Technical report writing & review

Employment History

2025 – Present

Fehily Timoney & Company
Senior Ecologist

2024 – 2025

Scott Cawley
Senior Ecologist

2017 – 2025

Self Employed
Fauna Specialist Consultant

2008 – 2017

Cabanga Concepts
Principal Environmental Scientist

2004 – 2007

Digby Wells Environmental
Ecology Unit Manager / Acting Head



Barbara Kasl

Senior Ecologist



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plans, report compilation and relevant client liaison for Cherrywood Development Agency Project Team (DAPT), Dún Laoghaire-Rathdown County Council (DLRCC).

APPROPRIATE ASSESSMENT & ECOLOGICAL/BIODIVERSITY IMPACT ASSESSMENT REPORTS

- **Edenderry Power Plant and Associated Clonbollugue Ash Residue Dump 2025-ongoing**
Co-ordinate the ecological project components required to update/compile the necessary ecological studies and reporting in support of an application for extension of duration.
- **Powerstown Biogas Plant, 2026 - Ongoing**
Compiling the biodiversity chapter for the EIAR for a biogas facility, including assessment of the gas pipeline infrastructure.
- **Littleton Peat Extraction Substitute Consent (2025/11 – ongoing)**
Compilation of the remedial NIS for historical peat extraction at Longfordpass Bog, Littleton Bog, Lanespark Bog and Derryvella Bog (part of the Littleton Group).
- **NM20 Cork to Limerick terrestrial habitat assessment, 2025/05 (ongoing at time of departure from Scott Cawley)**
Updating the baseline and drafting the remainder of the NM20 EIAR Biodiversity Chapter for terrestrial habitats.
- **Equinix DB50 Campus (Former Clyde House) (data centre), 2025/08**
Updating an AA screening for an EoD for parent application (2025/08).
- **Mogullaun Solar Farm, 2025/05 – 2025/07**
Managing the RFI Response Project, centered around Lesser Horseshoe Bats and Wintering Birds. Application withdrawn and resubmitted new application.
- **Mogullaun Solar Farm, ~€70,000.00, 2025/06 – 2025/09**
Managing the solar farm (originally Phase II) application and lead author for the NIS and co-author of the EclA, including updating (authoring / review) the ISMP, BMP, AA screening, NIS, EclA.
- **N6 Galway City Ring Road NIS, 2024/08 – 2025/03**
Compiled the updated N6 NIS and the associated AA screening Report and Non-technical Summary. Assisted team in ancillary tasks / supporting reports for the NIS and the Biodiversity Chapter.
- **Tullynally Estate Solar Farm (Overhead Powerline), <€5,000.00, 2024/05**
Completed the ecological reporting (AA Screening report) of the amendment entailing an overhead powerline for Elgin Energy Services Limited.
- **Rathborne Large Scale Residential Development LRD) Appropriate Screening Report Addendum, <€5,000.00, 2024/05**
Completed an Addendum by way of a technical note explaining the proposed project changes and that the existing Appropriate Assessment Report findings remained valid and unchanged on behalf of Ruirside Developments.

AIR QUALITY

- **N6 Galway City Ring Road Air Quality Ecological Impact Assessment, 2024/10 – 2025/03**
Worked closely with the Arup Air Quality Specialist team to complete the air quality impact assessment in line with the TII (2022) Guidelines for the impact assessment for the NIS and EIAR Biodiversity Chapter.

INVASIVE SPECIES MANAGEMENT PLANS

- **Mogullaun Solar Farm, ~€70,000.00, 2025/06 – 2025/09**
Managing the solar farm (originally Phase II) application including updating (authoring) the ISMP.

BIODIVERSITY MANAGEMENT PLANS

- **Powerstown Biogas Plant 2025/12 - ongoing**
Compilation of the Biodiversity Enhancement and Management Plan for the facility.
- **Mogullaun Solar Farm, ~€70,000.00, 2025/06 – 2025/09**
Managing the solar farm (originally Phase II) application, including updating (co-authoring and review of various components) the BMP.

OTHER PROJECTS / RESEARCH REPORTS

- **Gorey Relief Road Project 2025**



Barbara Kasl

Senior Ecologist



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Ecological Clerk of Works: Pre-vegetation clearance field assessments focused on badgers and Japanese knotweed.

- **Scott Cawley internal biosecurity protocols, 2024/10 (ongoing at time of departure from Scott Cawley)**
Managed and oversaw the development of the DRAFT Biosecurity protocols and drafting the final draft protocols.
- **Intel Hydrocarbon Technical Note, 2025/05**
Managed and authored research on hydrocarbon limits in aquatic environments.
- **Rathborne Wharf Strategic Housing Development (SHD) Bat Roost Enhancement Plan, 2024/04**
Largely co-ordinating and chairing client and authorities (DCC Planning and Biodiversity representatives) meeting to clarify and update the exiting roost management plan on behalf of Castlethorn & Chartered Land Group.

Project Co-ordination / Management

- **Dublin South Framework: Lehaunstown DLR Development: Ecological Project Manager and Coordinator, 2025**
Assisting with budgeting, managing and co-ordinating field schedule, field teams and reporting and reviewing EclA Report.
- **Dublin South Framework: Castlefield Social Housing Development: Ecological Project Manager and Coordinator, 2025**
Assisting with budgeting, managing and co-ordinating field schedule, field teams and reporting and reviewing EclA Report.
- **Mogullaun Solar Farm, 2025**
Managing the ecological project components associated with the RFI Response to an application which was later withdrawn and re-submitted new application. Managing the ecological project components for the new solar farm (originally Phase II) application.
- **Elgin Energy: various projects 2024 to 2025**
Client liaison for ecological projects relevant to various Elgin Energy Services Limited projects, principally solar farms and supporting infrastructure.

SAMPLE OF SOUTH AFRICAN PROJECTS

NATIONAL PROJECTS

- **Generic Environmental Management Programme (EMPr) for the Working for Ecosystems Programme. 2018-2020. Enacted under General Notice 105 on 5 February 2021.**
Terrestrial fauna expertise contributed to the development of the legislation.
- **Generic Environmental Management Programme (EMPr) for the Working for Water Programme. 2018-2020. Enacted under General Notice 106 on 5 February 2021.**
Terrestrial fauna expertise contributed to the development of the legislation.

Provincial Projects

- **North West Environmental Outlook: Biodiversity Chapter, North West Province, South Africa. 2018**
Terrestrial fauna expertise contributed to the fauna sections and update of the provincial environmental outlook report.
- **Gauteng Environmental Outlook: Biodiversity Chapter, Gauteng Province, South Africa. 2017/2018**
Terrestrial fauna expertise contributed to the fauna sections and update of the provincial environmental outlook report.

MUNICIPAL PROJECTS

- **Environmental Management Framework & Strategic Environmental Management Plan for the uMkhanyakude District Municipality, KwaZulu Natal Province. 2020/2021**
Terrestrial fauna expertise contributed to the fauna chapters and update of the municipal EMF and SEMP.
- **Environmental Management Framework & Strategic Environmental Management Plan for the Waterberg District Municipality, Limpopo Province. 2020/2021**
Terrestrial fauna expertise contributed to the fauna chapters and update of the municipal EMF and SEMP.
- **Environmental Management Framework & Strategic Environmental Management Plan for the John Taolo Gaetsewe District Municipality, Northern Cape Province. 2020/2021**
Terrestrial fauna expertise contributed to the fauna chapters and update of the municipal EMF and SEMP.



Barbara Kasl

Senior Ecologist



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- **City of Tshwane Open Space Plan: Gauteng Province, South Africa. 2019**

Terrestrial fauna expertise contributed to the fauna chapters and update of the metropolitan spatial development plan.

ENVIRONMENTAL AUTHORISATION PROJECTS: TERRESTRIAL FAUNA SCREENING REPORTS AND ASSESSMENTS IN LINE WITH NEMA EIA REGULATIONS APPENDIX 6 REQUIREMENTS AND, MORE RECENTLY, THE TERRESTRIAL BIODIVERSITY AND ANIMAL SPECIES PROTOCOLS AS ENACTED UNDER (GN320 & GN1150 OF 2020).

Agricultural projects (chicken farms, piggery, crop farming, orchards):

- **Riverton Resources Agricultural Development: Northern Cape Province. October 2022**

Terrestrial Fauna Species Assessment Survey and Report.

- **Krokodilsdrift Vegetation Clearance, Groblersdal, Limpopo Province. May 2021**

Terrestrial Fauna Compliance Statement.

- **Mist Farm Chicken Farm: Hekpoort, North West Province. March 2021**

Terrestrial Fauna Biodiversity Survey and Impact Assessment and Animal Species Compliance Statement.

- **Labola Farming (Pty) (Ltd) Land Clearing Project, Bloemhof Dam: Free State Province. December 2020**

Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

- **Gondo Logistics & Fuels: Piggery and Fuel Depot, Vischkuil Agricultural Holdings, Gauteng Province. October 2020**

Terrestrial Fauna Compliance Statement and Terrestrial Biodiversity Survey and Impact Assessment.

Service infrastructure development projects:

- **Dihatshwane Substation Project: Mahikeng, North West Province. September 2022**

Non-Avian Terrestrial Fauna Assessment. Animal Species Compliance Statement & Biodiversity Survey and Impact Assessment.

- **Bojanala Mogwase Overhead Power Line and Underground Pipeline Project, North West Province. September 2022**

Terrestrial Fauna Species Survey and Impact Assessment.

- **Lomond Safari 88kV Powerline Project: North West Province. February 2022**

Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

- **Alexandra Steel Pipeline Replacement and Upgrade, Gauteng Province. October 2020**

- **Upgrade of water reticulation in Boksburg, Gauteng Province. Terrestrial Fauna Impact Assessment & Management Plan in terms of NEMA. March 2020**

Terrestrial Fauna Compliance Statement.

Infrastructure projects:

- **University of Pretoria's Mamelodi Campus Water Harvesting Project: Gauteng Province. July 2023**

Terrestrial Fauna Compliance Statement.

- **Mothibistad Mixed Town Development Project, Mothibistad: Northern Cape Province. April 2023**

Terrestrial Fauna Compliance Statement.

- **Lefakong City Town Development: Limpopo Province. November 2022**

Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

- **Kalkheuvel Residence Project: Gauteng Province. Terrestrial Fauna Assessment. March 2023**

Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

- **Emalaheni Tertiary Hospital: Mpumalanga Province. November 2021**

Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

- **Rosebank Farm N1 Truck Stop and Fuel Station: Free State Province. November 2020**

Terrestrial Fauna Species Compliance Statement & Terrestrial Fauna Biodiversity Impact Assessment.

- **Mabula Game Reserve, Lodge Expansion, Limpopo Province. October 2020**

Terrestrial Fauna Biodiversity Survey and Impact Assessment.

Cemeteries:

- **Oukasie Cemetery Expansion: Brits, North West Province. November 2020**

Terrestrial Fauna Biodiversity Survey and Impact Assessment.



Barbara Kasl

Senior Ecologist



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- **Panorama Cemetery Expansion: Gauteng Province. April 2020**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

Nuclear energy & research:

- **South African Nuclear Energy Corporation's Multi-Purpose Nuclear Research Reactor Project: North West Province. March 2023**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

Dams:

- **Tsomo Water Supply Dam Project: Eastern Cape Province. March 2022**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.

Various rehabilitation projects:

- **Padda Dam Upgrade & Maintenance, Gauteng Province. June 2020**
Terrestrial Fauna Biodiversity Survey and Impact Assessment.
- **Orlando Dam Upgrade & Maintenance, Gauteng Province. January 2020**
Terrestrial Fauna Biodiversity Survey and Impact Assessment.
- **JRA: Region G Storm Water Repairs: Naturena, Johannesburg South, Gauteng Province. October 2019**
Terrestrial Fauna Biodiversity Site Verification and Compliance Statement for a Basic Assessment Application

Environmental Rectification: Terrestrial Fauna Professional Opinions in line with NEMA Section 24G.

- **Rockblend Ready Mix Cement, 24G Application for Rectification: Gauteng Province. July 2023**
Terrestrial Fauna Professional Opinion.
- **Zandspruit Sewer Pipeline Upgrade: Gauteng Province. March 2023**
Terrestrial Fauna Professional Opinion.
- **Underground Diesel Storage, Noodhulp, Bela Bela, Limpopo Province. February 2021**
Terrestrial Fauna Compliance Statement.

Renewable energy projects

- **Lesedi Power Company: 75 MW Humansrus Photovoltaic (PV) 1 Solar Power Facility: Northern Cape Province. February 2023**
Terrestrial Fauna Species site verification and Report Review.
- **Ekapa Minerals: Boshoff Floors Solar PV Project: Northern Cape Province. March 2023**
Terrestrial Fauna Compliance Statement.
- **Kameelfontein 297JR: Solar PV Project: Gauteng Province. June 2021**
Terrestrial Fauna: Preliminary Fauna Species and Biodiversity Assessment.
- **Leeufontein 299JR: Solar PV Project: Gauteng Province. March 2021**
Detailed Terrestrial Fauna Species Compliance Statement & Full Biodiversity Survey and Impact Assessment.
- **DRD Gold: Solar PV Project Phase 1, Gauteng Province. February 2021**
Terrestrial Fauna Species Compliance Statement & High Level Biodiversity Survey and Impact Assessment.

Mining-related projects

- **BCR Coal: Vlakfontein Coal Mine: Mining Right Application. January 2023**
Mammal and Invertebrate Species Survey and Impact Assessment Specialist Report.
- **Boschmanspoort Opencast Mine: Mpumalanga Province. December 2022**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.
- **Pilanesberg Platinum Mine: North West Province. Training Centre and Infrastructural Amendments. April 2022**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.
- **Idwala Crypts: Syferfontein Mining Permit, North West Province. January 2021**
Terrestrial Fauna: Species Compliance Statement & Biodiversity Survey and Impact Assessment.
- **Khutala Colliery 5-Seam Project: Mpumalanga Province. December 2020**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.



Barbara Kasl

Senior Ecologist



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- **Anglo Gold Ashanti, Kareerand Tailings Storage Facility Expansion Project, North West Province. February 2019**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment.
- **G&W Base Minerals. Koppies Bentonite Mine Near Koppies, Free State Province. January 2017**
Terrestrial Fauna Species and Biodiversity Survey and Impact Assessment, with Focus on Vertebrate Species.

MONITORING PROJECTS

- **Terrestrial fauna biodiversity monitoring and report 2020/2021 for the Khutala Colliery.**
Follow-up surveys, comparative assessment and reporting on biodiversity changes over time for in-house reporting requirements.
- **Terrestrial fauna biodiversity monitoring over 2018/2019 as presented in the Khutala Colliery: Ecological Assessment, Ogies Mpumalanga, South Africa Report (REM, 2019).**
Establishing monitoring sites from prior survey sites and completing follow-up surveys, comparative assessment and reporting on biodiversity changes over time of these sites for in-house reporting requirements.

ENVIRONMENTAL AUDITING REPORTS

- **Environmental Audit Report in Terms on NEMA EIA Regulation 34. Project: Future Coal: Chelmsford Colliery. Location: Newcastle, KwaZulu Natal Province. May 2019**
Site inspection and audit in terms of the environmental management plan and environmental authorization.
- **Future Coal (Pty) Ltd. Chelmsford Colliery, KZN. External Water Use License Compliance Audit. May 2019**
Site inspection and audit in terms of the integrated water and waste management plan and the water use authorization.
- **Environmental Audit Report in Terms of NEMA EIA Regulation 34. Project: Dama Colliery. Location: Between Newcastle & Utrecht, KwaZulu Natal Province. May 2019**
Site inspection and audit in terms of the environmental management plan and environmental authorization.
- **Thutha Amalahle Transport & Construction (Pty) Ltd Dama Colliery, KZN. External Water Use License Compliance Audit. May 2019**
Site inspection and audit in terms of the integrated water and waste management plan and the water use authorization.

THREATENED AND PROTECTED (TOP) SPECIES PROJECTS

- **Terrestrial fauna TOP species lists and "Explanatory Report for the MPACT TOP Terrestrial Fauna Lists. Piet Retief Area: Mpumalanga Province" February 2022. Requested in terms of forestry compliance requirements.**
Desktop-based assessment of all threatened and protected species that could occur within the forestry lands, their preferred habitats and preferred prey / food source to allow for in-house staff to consider likelihood of these species occurring within said land parcels.
- **Terrestrial fauna TOP species lists and "Explanatory Report for the COFCO TOP Terrestrial Fauna Lists for the Free State Province" May 2019. Requested in terms of agricultural compliance requirements.**
Desktop-based assessment of all threatened and protected species that could occur within the forestry lands, their preferred habitats and preferred prey / food source to allow for in-house staff to consider likelihood of these species occurring within said land parcels.
- **Terrestrial fauna TOP species lists and "Explanatory Report for the COFCO TOP Terrestrial Fauna Lists for the Mpumalanga Province" May 2019. Requested in terms of agricultural compliance requirements.**
Desktop-based assessment of all threatened and protected species that could occur within the forestry lands, their preferred habitats and preferred prey / food source to allow for in-house staff to consider likelihood of these species occurring within said land parcels.
- **Terrestrial fauna TOP species lists and "Explanatory Report for the COFCO TOP Terrestrial Fauna Lists for the North West Province" May 2019. Requested in terms of agricultural compliance requirements.**
Desktop-based assessment of all threatened and protected species that could occur within the forestry lands, their preferred habitats and preferred prey / food source to allow for in-house staff to consider likelihood of these species occurring within said land parcels.
- **TOP species assessment and contribution to the application of relocation and destruction of potential TOP species for the Makhado Colliery, Limpopo Province January 2019.**



Barbara Kasl

Senior Ecologist



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Desktop-based assessment of all threatened and protected species that could occur within the forestry lands, their preferred habitats and preferred prey / food source to allow for in-house staff to consider likelihood of these species occurring within said land parcels.



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

- Appropriate Assessment (AA)/Natura Impact Statement (NIS): Habitats Directive
- Ecological Impact Assessment (EclA)
- Environmental Impact Assessment Reports (EIAR) – Ornithology chapter
- Collision Risk Modelling
- Bat Survey Skills – nighttime bat walkover survey, emergence surveys, static deployment, preliminary bat roost assessment
- Excellent report writing skills
- Bat ID Analysis – Bat Explorer, Kaleidoscope
- Habitat Surveys – ARCGIS, Fossitt (2000)
- 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

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
- Shancloon 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
- AA Screening for three historical landfill capping projects

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. Gortafuiddig bridge badger sett trail cam deployment/survey.
- Proposed 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.



Jason Cahill

Project Ecologist



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Profile

Jason holds a degree in B.Sc. (Hons) in Field Biology with Wildlife Tourism, Institute of Technology Tralee.

He has six years postgraduate experience and is a Project Ecologist with Fehily Timoney.

Jason has experience in various field surveys including bird, bat, mammal, habitat, invasive species, and freshwater surveys.

He also has experience undertaking Appropriate Assessments and Environmental Impact Assessments for developments including wind farms, solar farms, and various urban developments.

Jason has worked as an Ecological Clerk of Works on a large-scale infrastructure development and several smaller projects.

Key Skills

- Undertaking ecological surveys at Edenderry Power an operational sustainable biomass facility.
- Ornithological surveys
- Habitat survey and identification
- Plant ID
- Bat surveys
- Report writing – AA, NIS, EIAR, EcIA
- Data management

Previous Experience Essentials for this Project

Wind Energy Projects

- Garryinch Wind Farm – Breeding and winter bird surveys, bat surveys, habitat surveys.
- Cushaling Wind Farm - Breeding and winter bird surveys, bat surveys, habitat surveys.
- Dyrick Hill Wind Farm – Data management, bird survey reports.
- Castlegarden Wind Farm – Habitat, mammal and invasive species surveys.
- Moanvane Wind Farm – Bird surveys.
- Ballinla Wind Farm – Audiomoth bird surveys.

Solar Energy Projects

- Killough Solar Farm – Bat surveys, Biodiversity Chapter, NIS.
- Cappakeel Solar Farm – EcIA, NIS, habitat, mammal, invasive species and freshwater surveys.
- Maganey Solar Farm – Breeding birds, habitats, mammals and invasive species surveys.
- Rathganley Solar Farm - Preliminary Ecological Appraisal Report, habitats, mammals and invasive species surveys.

Infrastructure Projects

Key Information

Qualifications

B.Sc. (Hons) in Field Biology with
Wildlife Tourism, Institute of
Technology Tralee
September 2015 – May 2019

Employment History

2024 – Present

Fehily Timoney & Company
Project Ecologist

2023 – 2024

Veon Ltd
Ecologist

2021 – 2023

Tobin Consulting Engineers
Ecologist

2020 – 2021

SLR Environmental Consultancy
Ecologist

2019

Roughan & O'Donovan Consulting
Engineers
Field Ecologist

2018

Kerry Natterjack Toad Project
Field Assistant



Jason Cahill

Project Ecologist



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- Bioenergy biogas project – Biodiversity Chapter, habitats, mammals and invasive species surveys.
 - Edenderry power station – Breeding and wintering birds, habitats, mammals and invasive species surveys.
 - Whitestown Landfill – Invasive species surveys and monitoring invasive species removal.
 - Nenagh Pedestrian & Cycle Scheme – Bat and kingfisher surveys.
 - Dunmore East cliff protection – Kittiwake surveys.
 - Southeast Greenway – Habitats, mammals and invasive species surveys.
 - N19 – Biodiversity Chapter.

Cian Cardiff

Wicklow, Ireland | 0871458168 | ccornithology@gmail.com |

Experience

Jan 2020-present

Ornithologist and owner of CC Ornithology and The Life of an Irish birder

Cian has studied birds since a young age and now runs a field work and consultancy business known as CC Ornithology, where he works full time as a professional ornithologist, working on a wide range of projects, from on shore studies to offshore surveys.

Cian is also a bird guide at the life of an Irish birder, as well as a public speaker, photographer and writer.

2018-2019

Training, one year field work training with Veale ecology

Learning the vast and complex methodologies for field surveys. These include, WEB's counts, Vantage point surveys and transects.

Education

2017-2018

Bray institute of further education

Study of horticulture and landscaping

2024

University of Oxford

Study of bird biodiversity and population monitoring methods

Example of the course content: detailed training in passive and non-passive bird surveying techniques. The course aims to create a rich workshop experience, encouraging direct student and tutor interaction and discussion.

You will receive highly practical expert training, helping you to

- develop skills for indirect counts of traces and nests, group-based counts of colonies, flocks and roosts
- learn how to conduct transect and aerial surveys
- develop skills in mist-netting, cannon-netting, walk-in (cage) traps, active (spring-loaded) traps and entanglement (noose) traps and tagging
- explore new technologies such as acoustic sensors and wireless sensor networks, PIT tags and the use of stable isotope analysis
- refine bird survey design and data collection skills
- understand how to record accurate, unbiased and representative samples to reach a conclusion

Skills

Activities

- | | |
|---|---|
| <ul style="list-style-type: none">• Bird identification• Guiding groups and individuals• Survey methodologies• Field surveys• Consulting on projects• Excellent communication skills, both verbal and written• PHECC First aid certified• Sea survival certified | <ul style="list-style-type: none">• Birding, walking, football, photography, reading, writing |
|---|---|

Some examples of projects previously carried out, by Cian Cardiff (CC Ornithology) All part of environmental impact assessments for a range of projects.

- Derryad wind farm, winter season 2021-2022, VPs, hinterlands, transects. Client Fehily Timoney
- Drehid wind farm, winter and breeding season 2023, VPs, hinterlands, transects, both winter and breeding season, migration surveys. Client Fehily Timoney
- Bilboa wind farm, Winter 2022-2024. VPs, hinterlands, transects, both winter and breeding season, migration surveys. Client Fehily Timoney
- Coolnagun wind farm, Breeding season 2024-2025. VPs, hinterlands, transects, both winter and breeding season, Hen harrier roost watches. Client Fehily Timoney
- Codling ban wind farm, winter 2019-winter 2026, WeBs surveys, Breeding bird surveys and tern staging surveys. Client Natural power
- Codling bank, Breeding season 2025, offshore migration surveys. Client Natural power
- Arklow bank wind farm, Breeding season 2023-breeding season 2026. Vantage point surveys, offshore flight height surveys, breeding seabird surveys and acoustic bird surveys
- Solar farm, Co. Meath, winter bird transects 2022-2023. Client Neo environmental
- Winter bird transects, Wexford, 2022-2023. Client Neo environmental
- Planning application sites, Dublin, breeding season 2022. Breeding bird surveys. Client Darcey ecology
- River Dodder, Dublin, Breeding bird surveys, breeding season 2026. Client ARUP
- Kilmichael wind farm, 2023-2026, VPs, waterbird surveys, breeding bird surveys, nightjar, woodcock, owl, kingfisher surveys.



Danny Franklin

Ecologist

CV 01



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Danny holds a Master's degree in Wildlife Conservation and Management from UCD and a BSc in Zoology from UCC.

Danny has experience with research, observation and assessment skills. He has engaged in BSBI Field days, NBDC events, DAFM CPD events and plant ID skills training

Forename has worked with Fehily Timoney and Company on their team contracted to the Department of Agriculture, Food and Marine as a Project Ecologist as well as with Mott Mac Donald as an Ecologist.

Key Skills

Danny has experience in:

- Data analysis – collection and/or interpretation of statistical information and presentation
- QGIS and Arcgis
- Experience with Department of Agriculture, food and Marine guidance documents.
- Remote Sensing
- Report Writing Skills – completed Technical Report writing skills by Engineers Ireland
- Communicating with multiple stakeholders on projects.
- Identification Skills – native mammals, plants, birds
- Presentation skills, Microsoft Office software and Google Suite software.

Previous Experience Essentials for this Project

- **Ecologist, Mott MacDonald, Dublin, April 2023 – Feb 2024**
Worked as part of and supporting cross disciplinary teams working in preliminary design, statutory consent, and construction stage projects in the energy, water, flood defense and transport sectors.
Completed reports based on ecological surveys based on observations completed by field ecologists - habitat (Fossitt level III), protected species (birds, bats, badgers, otter) and invasive species.
Interpreted ecological monitoring data.
Input and save ecology data using excel, GIS (ArcGIS) and/ or word.
Drafting reports - Ecological Impact Assessments (EclA), Appropriate Assessment (Habitats Directive) and ecology survey finding reports.
Working with other in-house and external ecologists to advise on appropriate design/ mitigation to minimise/ avoid biodiversity impacts and identify opportunities for biodiversity enhancement.
Liaising with clients, landowners and other stakeholders (e.g. Government agencies, local councils, NGOs).
- **Project Ecologist / Forestry Consultant, Fehily Timoney and Company, Dublin, June 2021 – April 2023**

Key Information

Qualifications

MSc Wildlife Conservation and Management, University College Dublin, 2020

BSc Zoology, University college Cork, 2018

Employment History

2024– Present

Fehily Timoney & Company
Ecologist

2023 – 2024

Mott MacDonald
Ecologist

2021 – 2023

Fehily Timoney and Company
Project Ecologist



Danny Franklin

Ecologist

CV 01



DESIGNING AND DELIVERING
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Contracted to the Department of Agriculture, Food and Marine to complete Appropriate Assessments as part of the Tree Felling Licence, Afforestation and RUS Licence application approval process.

Desk based assessment of the project and surrounding area to ensure forestry activities will not have negative impacts on European sites or locally important populations and habitats using QGIS and a variety of DAFM, Geohive and NPWS resources. Creation of robust, site specific and practical mitigation measures must then be carried out depending on a number of on and off site factors in conjunction with the appropriate guidelines for the proposed activities and consultation with district inspectors.

Team lead involving the triaging and automation of files to be completed by team members, Communication with forestry companies as well as forest owners for clarification, handling further information requests and Management of appeals against completed files and reviewing of the team's files prior to publication for public consultation.

Reading, understanding and distillation of DAFM guidance documents.

Understanding and reading around the actions carried out by submitting field ecologists and third parties, such as habitat surveys to best interpret their findings and to ask the correct questions should we require further information.

- **Bats of the Iveragh Peninsula Project, UCC Kerry satellite campus, 2018**

Participated in a bioacoustical survey of the bat species of the Iveragh peninsula

Habitat mapping of the Study area

Report writing and presentation to schools around the study area and information evening for the residents of the Iveragh peninsula in the Cahersiveen library

- **Veterinary Lab Services Ireland (VLSI) and DNA Ireland (Synlab)**

Administrator and DNA case worker

Reference range coordinator for the Irish branch the lab group

Reporting and formation of results reports in both companies

Communicating with international labs

Facilitating the testing of human and animal genetic samples.

- **Cork Nature Network**

Participated in a survey of the otter population of cork city through the collection of spraints

Ensured collection of fresh material which was delivered for analysis



Yumi Mihara
Senior Project Ecologist
CV 01



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

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

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



DESIGNING AND DELIVERING
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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.



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



DESIGNING AND DELIVERING
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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



Tom Clayton

Associate Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Tom is a Chartered Engineer with a total of 18 years of experience within the geotechnical sector having developed excellent skills in analytical design (including finite element analysis), project and team management.

Tom has significant and broad experience in the geotechnical sector, having developed key expertise in transport geotechnics (for road, rail, underground rail schemes, active travel and greenway schemes), deep excavations and shafts (primarily in the Middle East and London) and Energy Geotechnics (both for solar and wind farms).

Tom also specialises in earthwork stabilisation and has worked in asset management and design consultancy roles for both highways and rail projects.

Tom has 10 years' experience as geotechnical lead on a variety of projects with over 5 years of this experience as the lead geotechnical engineer in Fehily Timoney.

Key Skills

Tom's experience includes:

- Geotechnical Engineering
- Geotechnical Design
- Site Inspections
- Deep Excavations & Underground Structures
- Geotechnical Asset Management & Slope stabilisation
- Site Investigation

Previous Experience Essentials for This Project

- **Associate Director (Geotechnical): EIAR for Powerstown Bioenergy**
Geotechnical Checker for all geotechnical inputs including site investigation and EIAR process for proposed Powerstown bioenergy facility. If permitted, Powerstown Bioenergy will be the largest anaerobic digestion plant in Ireland on a scale with the largest plants in Europe. The proposed development is key to the delivery of Ireland's national target to generate 5.7 TWh of biomethane by 2030.
- **Geotechnical Engineer: Renewable Gas Facility, Bord Na Mona 2020-2023.**
Geotechnical Engineer for the preliminary design for the EIAR for a proposed Renewable Gas Facility. The proposed facility will treat 80,000 or organic waste by anaerobic digestion to produce an organic biogas. The biogas will be cleaned and upgrade for injection into the national gas grid network.

Deep Excavations

- **Thames Tideway Tunnel Tender (West & Central Station) – Ferrovial Laing O'Rourke, 2014**
Geotechnical Designer producing geotechnical interpretative and tender design notes for Thames Tideway Tunnel West & Central section tender (total value approximately £300M – 500M for each section). Interpretation of ground investigation, production of characteristic design values, designer's risk assessment, preliminary design and input into the contractor's risk analysis. Leading a team of two engineers.

Key Information

Qualifications

MEng. (Distinction) Civil Engineering,
University of Surrey, 2008

BREEAM Infrastructure Assessor

Professional Memberships

Institution of Civil Engineers
(Member) 2015

Chartered Engineer (CEng), 2015

Employment History

2016- Present

Fehily Timoney & Company
Principal Geotechnical Engineer

2008 – 2016

Arcadis UK (Formerly Hyder
Consulting)

2004 – 2008

Hyder Consulting (Undergraduate)



Tom Clayton

Associate Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **STEP Tunnel, Abu Dhabi – Samsung, 2011**

Design of circular shafts using Plaxis2D including uplift calculations and consideration of internal water pressure and structures. Mentoring a trainee engineer.

- **Whitechapel Station (Crossrail) – Crossrail, 2011**

Undertook geotechnical design on structures at Whitechapel Station. Work included finite element modelling and pseudo finite element modelling of deep box structures constructed using diaphragm walls with incoming and adjacent tunnels, pile design, 2D PFE modelling and design of multi-propped contiguous pile walls and preparation of geotechnical baseline reports.

- **Botanica Tower, Dubai & Al Quds Tower - Doha Select Group, 2010**

Completed a piled raft foundation design for a 40 storey structure in Dubai with 3 basement levels and a 100 storey tower with 5 basement levels and associated podium structures. Tom produced a finite element models (in MidasGTS) of the tower foundations in order to calculate settlement and pile forces and verified the results using several other computer packages.

- **Khatt Hotel, Ras Al Khaimah - Khatt Hotel, 2007**

On site as the supervising engineer at the Khatt Hotel, a ground and structural stabilisation project in the United Arab Emirates. Tom's responsibilities included daily supervision of micro-piling and retaining wall construction, monitoring of structural cracks and slope movements and general liaison with the Contractor's engineers on site to ensure compliance with specification.

- **Borough Green to Trosley Pipeline Directional Drilling, 2010**

Specification and supervision of ground investigation, preparation of a design report including settlement calculations for a directionally drilled pipeline below the M20 motorway in Kent. Liaison with the Highways Agency to ensure approval. Supervision of directional drilling works to ensure specified settlement criteria were met.

Dynamic Compaction

- **Al Falah Ground Improvement Scheme, Abu Dhabi - Fluor, 2009**

Settlement calculations based on the interpretation of CPT and Pressuremeter data and comparison against calculated trigger values to ensure adequate improvement of ground stiffness by dynamic compaction methods. This scheme was, at the time, thought to be the largest ground improvement scheme in the world.

Roads

- **N19 Shannon Airport Access Road, Ongoing**

Associate Geotechnical Director geotechnical assessments as part of Phase 1-4 of the EIAR process. Scope, procure and manage the detailed ground investigation for the scheme, involving scheduling of laboratory testing on soil and rock samples, including soft ground. Provision of a GIR and GDR for the scheme.

- **Dunkettle Interchange, Ongoing**

Principal Engineer 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 watercourses or intertidal area
- Pedestrian and cyclist facilities; and
- Modification of the existing Silversprings junction on the N8 Lower Glanmire Road

Geotechnical lead for structures foundations and approximately a third of the earthworks. Responsible for the scoping of the ground investigation, preparation of specification and bill of quantities, managing a team of supervisors on site, laboratory testing scheduling and interpretation of two phases of extensive ground investigation for this significant infrastructure project.

- **A737 Dalry Bypass - Farrans-Roadbridge, Ongoing**

Tom has been responsible for project management of the design of the Dalry Bypass during the latter design phase and through construction to date. He has acted as a geotechnical auditor and internal checker for earthworks packages delivered. Tom also undertook design of a pipeline protection slab related to SGN infrastructure crossing the proposed alignment.

- **Manchester Smart Motorway - Highways England, 2014**

Completion of a Preliminary Sources Study and detailed design for gantries and retaining structures for a £208M "Smart motorway" scheme on the M60/M62. Leading a team of two graduate engineers and up to three engineers based in India. The role involved the development of characteristic design values, pile group analysis for all gantries and design of retaining structures on sloping ground. Preparation of Design Risk Assessments for all designs.



Tom Clayton

Associate Director (Geotechnical)



DESIGNING AND DELIVERING
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- **Geotechnical Asset Management Plan – Highways England, 2013**

Tom completed a full review of the asset inventory in Mac Area 3, prioritised earthwork repairs based on the Value Management Plan, risk profiling and available economic and physical resources and produced a five-year plan for earthwork remedial works across the area.

- **Area 3 Value Management Plan – Highways England, 2013**

Tom undertook detailed design a sheet pile based widening scheme to facilitate a new slip road at Milton Interchange which was in turn related to a new housing development adjacent to the site. This included the use of retaining wall design software, specification, Designer's risk assessments (in accordance with CDM regulations) and all other documentation for a "For Construction" set of documents.

- **Area 3 Principal Earthwork Inspections– Highways England, 2013**

Tom managed a team of 3 Geotechnical Engineers to undertake Principal Inspections (and undertook inspections himself) across the Area 3 network across two annual inspection cycles, totalling some 500 miles of highway geotechnical asset. Tom used a PDA on site to enter information into the Highways England HAGDMS database and then carried out quality control assessments on the data. Tom also trained other staff in the undertaking of geotechnical earthwork inspections. Tom produced a safety system for inspectors which complied with the Highways England methodologies for working on the highway which included a buddy and daily reporting system.

- **EM47609 – M4 J10 Granular Repair – Highways England**

Project Manager and design lead for a granular repair adjacent to a highway bridge at M4 J10. Tom undertook scoping and management of site investigation, supervision of site clearance and site investigation, undertook the role of Contractor on site from a health and safety perspective. Carried out detailed design and liaised with the site team to ensure compliance with the design.

- **M25 Rapid Widening – Highways England, 2006**

Undertook design of retaining walls, re-graded slopes, reinforced soil and soil nails using computer analysis programs to BS8002 and BS8004 for the Rapid Widening of a section of the M25 Orbital Motorway, London, UK.

- **A34 Milton Interchange Slip Road – Highways England, 2013**

Tom undertook detailed design a sheet pile based widening scheme to facilitate a new slip road at Milton Interchange which was in turn related to a new housing development adjacent to the site. This included the use of retaining wall design software, specification, Designer's risk assessments (in accordance with CDM regulations) and all other documentation for a "For Construction" set of documents.

Chieveley Pond Flood Alleviation Scheme – Highways England, 2013

Project Manager for the undertaking of ground investigation at Chieveley Ponds, which involved the completion of boreholes and the installation of water level data loggers to assess the viability of an alleviation scheme for road surface flooding at the junction. Tom completed the ground investigation tender and completed CDM documentation for same.

- **M27 Romsey Bridge– Highways England, 2013**

Project Manager for the replacement of an existing bridge structure. This project included the consideration of the re-use of bridge abutment piles and an assessment of load takedown for a new structure. Tom also undertook scoping and specification of ground investigation at the site as well as preparation of CDM documentation for same.

Rail (Summary)

- **Wessex CP5 Design Manager Role – Network Rail, 2015**

Project Manager of 10+ schemes totalling £1M+ of design fee. Tom coordinated a multi-disciplinary design team and liaised closely with a co-located team from the client (the contractor) and NR. Tom administered the contract (early warning notices, change controls etc.), compiled fee proposals, created and maintained a programme and managed client expectations. Tom was also responsible for ensuring that all design team risk assessments were completed and collated in accordance with CDM regulations.

Wessex CP5 Technical Lead Role – Network Rail, 2017

Design lead of a team of up to 5 geotechnical engineers and CAD staff producing designs for multiple earthwork stabilisation projects in the NR Wessex region of total values ranging from £200k to £2M. Tom produced Option and Feasibility Reports and ground investigation specifications. Tom adhered to the NR design process (Form 001, 002 and 003) to produce detailed designs for earthwork schemes including soil nailing, sheet piling, gabions and king post walls. Tom also produced Designer's Risk Assessments for each scheme.



Tom Clayton

Associate Director (Geotechnical)



DESIGNING AND DELIVERING
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Peatland Restoration

- **Derryclare Peat Restoration Project – MKO/Coillte, 2023**

Associate Geotechnical Director for this peat bog restoration project in Co. Galway. Work included peat stability assessment, peat probing.

Flood Defences

- **IDA Limerick Flood Alleviation Scheme – IDA, 2021**

Lead Geotechnical Engineer for this flood defence scheme. Responsible for scoping, procuring, supervising site investigation consisting of trial pits, boreholes, geophysics and laboratory testing. Scheduling of laboratory testing. Interpretation of ground investigation and inputs to preliminary design for flood defence scheme.

- **Titchwell Marsh, Norfolk – RSPB, 2021**

Acted as consultant's representative on site at RSPB Titchwell Marsh for this flood defence and managed retreat scheme aiming to create new saltmarsh and protect existing Freshwater marsh, liaising with the client and the contractor and managing site queries, design changes (including updates to Design Risk Assessments) and payment certification to the contract.

Greenways

- **Grand Canal Greenway Phases 1 & 2, Ongoing**

Associate Geotechnical Director responsible for the design of works for the Grand Canal Greenway Phases 1 & 2. The projects include the design, procurement and construction supervision for walking and cycling routes along the grand canal, including new pedestrian bridges, canal bank widening, pavement design, under bridge crossings and design of trail heads. Total length is approximately 40kms. Scope included scoping, procuring, supervising site investigation consisting of trial pits, boreholes, geophysics and laboratory testing. Scheduling of laboratory testing.

- **Wexford to Rosslare Greenway, 2020**

Associate Geotechnical Director responsible for the route selection, preliminary design, environmental assessment and statutory consent processes for the greenway. The Wexford Town to Rosslare Strand Greenway route will commence in the vicinity of proposed Trinity Wharf development in Wexford Town and extend in southerly direction over an approximate distance of 10-12km to terminate at Rosslare Strand Train Station.

- **Limerick Greenway Limerick, €10M, 2022**

Associate Geotechnical Director for the design of improvement works to 40km of the great southern greenway in Limerick. Works include widening, resurfacing, over bridges and under passes, drainage improvements and trailhead design. Scope included scoping, procuring, supervising site investigation consisting of trial pits, boreholes, geophysics and laboratory testing. Scheduling of laboratory testing. The design phase has been completed and the project is commencing construction.

- **Barrow Blueway Road Crossings, €TBDM, Ongoing**

Associate Geotechnical Director for the design of road crossings and new pedestrian bridges associated with the Barrow Blueway. Scope included scoping, procuring, supervising site investigation consisting of trial pits, boreholes, geophysics and laboratory testing. Scheduling of laboratory testing.

Wind

- **Ballivor Wind Farm – MKO, 2023**

Associate Geotechnical Director for this Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, collation of data, stability assessment, assessment of peat and spoil volumes. Scope, procure and supervision of ground investigation on peatland site and scheduling of laboratory testing.

- **Sheskin South Wind Farm – MKO, 2023**

Associate Geotechnical Director for this Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, collation of data, stability assessment, assessment of peat and spoil volumes. Scope, procure and supervision of ground investigation on peatland site and scheduling of laboratory testing.

- **Glenora Wind Farm – MKO, 2023**

Associate Geotechnical Director for this Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, collation of data, stability assessment, assessment of peat and spoil volumes. Scope, procure and supervision of ground investigation on peatland site and scheduling of laboratory testing.

- **Croaghaun Wind Farm, 2022**

Associate Geotechnical Director for the production of EIAR Soils & Geology Chapter for this wind farm project.



Tom Clayton

Associate Director (Geotechnical)



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- **Coom Green Energy Development, 2020**

Associate Geotechnical Director for the production of EIAR Soils & Geology Chapter for this wind farm and solar energy project in Co. Cork. Included the scoping, specification, procurement, supervision, management and interpretation of ground investigation and scheduling of laboratory testing.

- **Derrinlough Wind Farm – Bord na Mona, 2022**

Associate Geotechnical Director providing geotechnical advisory to Bord na Mona for this wind farm project. Included the completion of laboratory testing schedules to allow detailed design of all elements of the works on this project.

- **Kilgallioch Wind Farm, Farrans, 2018**

Tom took over the Project Manager role for this award winning 96 turbine wind farm project in Scotland towards the end of the construction stage and was responsible for closing out as-built drawings. Tom also undertook the role of Geotechnical Design Lead for a replacement turbine foundation at one location and undertook the formation inspection during the construction of this turbine.

- **Derrysallagh Wind Farm Substitute Consent – Kilronan Wind Farm Ltd, 2018**

Tom was the Geotechnical / Geology Lead for the preparation of a Soils, Geology and Hydrogeology chapter for a retrospective EIS relating to the construction of an electrical cable route from Derrysallagh Wind Farm to a nearby electrical sub-station. As part of this assessment, Tom undertook a full desk study, site visit and provided an assessment of potential and cumulative impacts of the development (including with the wind farm development itself) and mitigation measures that could be implemented.

- **Gortfinbar Phase 2 – Moriarty Civil Engineering Contractors, 2017**

Tom acted as Category III checker for a piled turbine base foundation at this Northern Irish Wind Farm. Tom carried out an independent set of calculations and provided comments to the Designer. Tom also provided slope stability assessments for access road rock cuttings.

- **Teevurcher Wind Farm - Roadbridge, 2017**

Tom was the Lead Geotechnical Designer for this 5 turbine wind farm in Co. Meath and carried out full interpretation of the ground investigation and geotechnical design for all turbine foundations, hardstandings, access roads, substation foundations and met mast. Tom also provided construction stage support, formation inspections and verification of geotechnical testing for all of the above elements.

- **Meenwaun Wind Farm - Roadbridge, 2017**

Tom was the Lead Geotechnical Designer for this 4 turbine wind farm in Co. Offaly and carried out full interpretation of the ground investigation and geotechnical design for all turbine foundations, hardstandings, access roads, substation foundations and met mast. Tom also provided construction stage support, formation inspections and verification of geotechnical testing for all of the above elements.

- **Proposed Wind Farm, Co. Kerry – Joam Consulting Ltd, 2016**

Tom was the Project Manager for this peat stability assessment for a proposed wind farm in Co. Kerry. Tom oversaw the conducting of peat probing and field visits to the site and the preparation of a peat stability assessment in line with Scottish guidance on the preparation of Peat Stability Assessments. This project also involved the 3rd party check of a soil, geology and hydrogeology chapter prepared by others.

- **Raragh Wind Farm – Mainstream Renewables, 2016**

Tom was the Geotechnical / Geology Lead for the preparation of a Soils, Geology and Hydrogeology chapter for an EIS relating to the construction of an electrical cable route from Raragh Wind Farm to Kingscourt, Co. Cavan. As part of this assessment, Tom undertook a full desk study, site visit and provided an assessment of potential and cumulative impacts of the development (including with the wind farm development itself) and mitigation measures that could be implemented.

- **Proposed Wind Farm, Co. Donegal – Element Power, 2016**

Tom was the Geotechnical / Geology Lead for the preparation of a Peat Stability Assessment for an EIS relating to the construction of a Wind Farm in Co. Donegal which was a proposed as an 8 turbine site. Tom oversaw the conducting of peat probing and field visits to the site and the preparation of a peat stability assessment in line with Scottish guidance on the preparation of Peat Stability Assessments



Tom Clayton

Associate Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Contaminated Land and Waste

- **Whitestown Landfill Remediation Project, Ongoing**

Tom was Lead Geotechnical Engineer for ground investigations carried out on this significant landfill site in Co. Wicklow. Investigation involved a grid of trial pits (100+) with environmental testing, installation of groundwater monitoring wells and investigation boreholes (89 no.) across the site and extensive geophysical investigation using seismic refraction, electrical resistivity and ground conductivity. Works included the scoping of the SI, preparation of extensive specification and tender documents, procurement of ground investigation contractors, management of the supervision of the works and interpretation of the ground investigation fieldwork.

- **Dublin Airport Environmental Assessment – daa (on behalf of Roadbridge), 2018**

Tom has been Project Manager for this environmental investigation project which involved the use of a mix of geophysical and intrusive investigation to map buried waste across a 261-hectare area on the outskirts of the Airport and then the use of environmental sampling to inform disposal and re-use of the materials encountered. Tom led a team including geo-environmental and waste teams and liaised with site investigation contractors.

- **Timoole Landfill Remediation Tender Design – Priority Construction, 2018**

Tom has been the Project Manager and Geotechnical Lead for this remediation design for the removal of 40,000+m³ of assorted waste materials from a site in Co. Meath. The project involved use of the Observational Method for the ongoing assessment of slope stability, with mitigation measures including sheet piling and the construction of berms and dewatering trenches included in the design should signs of instability occur.

- **Dublin Airport Stockpile Soil Classification – daa (on behalf of Ramboll), 2018**

Tom was the Project Manager for this Soil Classification project relating to 70,000+m³ of mixed stockpiles and made ground at Dublin Airport. Tom undertook the management of environmental engineers, site investigation contractors and laboratories in order to produce a Soil Classification Report as part of the tender for removal and disposal of these soils as waste materials.

- **Newhaggard Soil Classification – Fingal County Council, 2018**

Tom was the Project Manager for this Soil Classification project near Lusk, Co. Dublin. 41,000m³ of soil had been deposited previously within the Rogerstown Estuary and the project involved the classification of these soils for re-use, both in terms of contaminants and from a geotechnical point of view. Tom managed sub-contractors to carry out site investigation and staff to prepare a Soil Classification Report.

- **Ballyogan Landfill, 2017**

Tom was the Geotechnical Slope Inspector for this landfill, which included a visual inspection of all side slopes and reporting on any slope stability issues to satisfy the EPA waste licence criteria.

- **Balleally Landfill, 2017**

Tom was the Geotechnical Slope Inspector for this landfill, which included a visual inspection of all side slopes and reporting on any slope stability issues to satisfy the EPA waste licence criteria.

- **Dunsink Landfill, 2017**

Tom was the Geotechnical Slope Inspector for this landfill, which included a visual inspection of all side slopes and reporting on any slope stability issues to satisfy the EPA waste licence criteria.

- **Gortadroma Landfill Slope Stability, 2017**

Tom was the Geotechnical Slope Inspector for this landfill, which included a visual inspection of all side slopes and reporting on any slope stability issues to satisfy the EPA waste licence criteria.



Ian Higgins

Technical Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Ian is a geotechnical engineer with over 25 years' experience in the design and supervision of construction of bulk earthworks, geotechnical foundation design, geotechnical monitoring and reviewing, reinforced earth design and 3rd party checking of piling and ground improvement designs. Ian's experience also includes the design, supervision and interpretation of ground investigations, including desk studies, walkover surveys, hazard mapping of rock excavations and slopes.

Ian has experience in many areas of civil engineering including highways, railways, energy projects and commercial developments. Ian's responsibilities include managing junior engineers, reviewing work carried out for ground investigation, reporting and design. Ian has also experience in using a number of geotechnical software packages including slope stability, finite element, pile design and retaining wall design.

Key Skills

- Earthworks Design
- Geotechnical Foundation Design
- Ground Investigation Scoping and Procurement
- Peat Stability Assessments for Wind Farms

Previous Experience Essentials for This Project

- Ian has been Project Manager and Technical Lead for Peat Stability Assessments of the following non-exhaustive list of sites. Ian's role on these projects varied but generally included undertaking Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, fieldwork including peat probing, peat sampling, geotechnical observations, coordination with ecological and hydrological discipline leads, collation of data, stability assessment, assessment of peat and spoil volumes. Scope, procure and supervision of ground investigation on peatland site and scheduling of laboratory testing.
 - Slievacurry Wind Farm
 - Derrysallagh Wind Farm
 - Coole Wind Farm
 - Carrigareirk Wind Farm
 - Knockshanvo Wind Farm
 - Sheskin Wind Farm Grid Connection
 - Bracklyn Wind Farm
 - Ardderroo Wind Farm
 - Sheskin Wind Farm
 - Glenora Wind Farm
 - Knockacummer Grid Connection
 - Dungloe Wind Farm
 - Cahermurphy Wind Farm Extension
 - Derrykillew Community Wind Farm
 - Ballyhorgan Wind Farm
 - Derrinlough Wind Farm
 - Croagh Wind Farm Grid Connection
 - White Hill Wind Farm
 - Ballynalacken Wind Farm

Key Information

Qualifications

BSC. Engineering Geology,
University of Sunderland, 1996

MSc. Geotechnical Engineering,
Heriot Watt University, Edinburgh,
1997

Professional Memberships

Member of the Institute of Engineers
of Ireland

Fellow of the Geological Society of
London (FGS)

PGeo – Institute of Geologists of
Ireland

EuroGeol – European Federation of
Geologists

Employment History

2019- Present

Fehily Timoney & Company, Carlow

2013 – 2019

Applied Ground Engineering
Consultants Ltd. (AGEC)

2012 – 2013

AGEC Australia

2001 – 2012

Applied Ground Engineering
Consultants Ltd. (AGEC)

1998 – 2001

Geotechnics Ireland Ltd.



Ian Higgins

Technical Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Ballincollig Hill Wind Farm**
- **Clogheravaddy Wind Farm**
- **Ballivor Wind Farm**
- **Monvallet Wind Farm**
- **N21 Adare Bypass**
Geotechnical design category 3 checker for motorway project in the southwest of Ireland, covering earthworks
- **A5WTC (Section 2, Strabane to Omagh)**
Geotechnical design of earthworks for a proposed dual carriageway D&B Contract. Slope stability assessments, material reusability, subgrade stiffness assessment and soft ground treatments.
- **M28 Cork to Ringaskiddy**
Provide geotechnical input into D&B tender for Contractor. Review ground investigation data, undertake design assessment including slope stability, material reusability, subgrade stiffness, rock stabilisation measures and karst risk assessment.
- **Dunkettle Interchange**
Part of Earthworks Design team for detailed design of Interchange Upgrade. Produced Design Reports covering the design of ground improvement for soft ground and slope stability assessments.
- **Ballivor, Sheskin South and Glenora Wind Farms**
Undertake Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, collation of data, stability assessment, assessment of peat and spoil volumes. Scope, procure and supervision of ground investigation on peatland site and scheduling of laboratory testing.
- **N19 Shannon Airport Access Road**
Undertake geotechnical assessments as part of Phase 1-4 of the EIAR process. Scope, procure and manage the detailed ground investigation for the scheme, involving scheduling of laboratory testing on soil and rock samples, including soft ground. Provision of a GIR and GDR for the scheme.
- **Croaghaun Wind Farm, Annagh Wind Farm, Coom Green Energy Development**
Production of EIAR Soils & Geology Chapter for several wind farms.
- **Derrinlough Wind Farm, Croagh Wind Farm, Cahermurphy Wind Farm,**
Undertake Peat Stability Assessment and Peat & Spoil Management Plan for EIAR submissions. Site walkover, collation of data, stability assessment, assessment of peat and spoil volumes.
- **Almaty-Korgos Highway, Kazakhstan (ICC)**
Assessment the quantities of all temporary and permanent works executed by the Claimant relating to East-West Roads Project (Almaty-Korgos), part of the Western Europe-Western China International Transit Corridor.
- **A6 Dungiven to Drumahoe**
Part of Earthworks Design team for tender design submission. Assessment of ground investigation information for earthworks reusability and slope stability assessments.
- **Oweninny Wind Farm, Mayo**
Geotechnical design of access roads and turbine bases for Phase 1 of wind farm development (29 turbines)
- **Aberdeen Western Peripheral Route, Aberdeenshire, Scotland**
Part of Client's Representative Team, monitoring and checking of earthworks including material selection and testing. Liaison with contractors and preparing daily and weekly reports on work programme and health and safety issues.
- **M17/M18 Gort to Tuam PPP Project**
Geotechnical design category 3 checker for motorway project in the west of Ireland, covering earthworks and foundations for structures.
- **Kilgallioch Wind Farm, Scotland**
Geotechnical design of substation platform, access roads and turbine bases for 96 turbine wind farm.
- **Dersalloch Wind Farm, Scotland**
Geotechnical design of access roads and turbine bases for 23 turbine wind farm.
- **Dublin Waste to Energy Incinerator Project**
Geotechnical assessment of ground conditions, procurement of ground investigation, design of piled foundations, design load transfer platform and reinforced earth structures.
- **Black Law Wind Farm Extension, Scotland**



Ian Higgins

Technical Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Geotechnical design of access roads and turbine bases for 23 turbine extension to an existing wind farm including site inspections and sign off during construction.

- **Diyar Al Muharraq Project, Bahrain**
Assessment of the ground conditions and site investigation data for a deep sewer line particularly regarding the environmental impact on the aquifer.
- **M11 Gorey to Enniscorthy Tender Design Check**
Geotechnical design check for motorway tender design submission.
- **A31 Magherafelt Bypass**
Geotechnical designer for earthworks and foundations for tender design of a 5.8km bypass.
- **A26 Dualling Glarryford to Drones Road**
Geotechnical checker for tender design submission

AGEC Australia Ltd. – Principal Geotechnical Engineer

- **Utah Point Stockyard 2, Port Hedland**
Project manager for the civil, structural and geotechnical design of the Stockyard 2 development at Utah Point. AGEC undertook the ground investigation design and supervision, earthworks design for the new iron ore stockyard construction with stockpiles up to 17m high and foundations design for the associated stackers, reclaimer and conveyors. AGEC also acted as site representatives during construction.
- **Esperance Port Access Corridor**
Geotechnical designer for the temporary works design for excavation support as part of the Esperance Port Access Corridor (EPAC) project, located in Esperance, Western Australia. AGEC undertook temporary works design for the access road upgrading and railway line realignment.
- **Adelaide Terrace Hotel, Perth**
Geotechnical engineer for a proposed new hotel in a Perth CBD restricted site. AGEC undertook the ground investigation design and supervision, soil parameters assessment and geotechnical design for the foundations for a 15 storey hotel with an underground car park 3 basement deep.
- **Mitchell Freeway Widening, Perth**
Geotechnical project manager for the temporary works design for retaining structures.

Applied Ground Engineering Consultants Ltd. (AGEC) – Senior Engineering Geologist

- **Corrib Gas Onshore Pipeline, Co. Mayo, Ireland**
Geotechnical advisor on construction aspects of onshore pipeline. Duties include monitoring and reporting on ground conditions during construction including weekly reporting with analyses and interpretation of data from telemetric and in-situ instrumentation. Construction compliance verification with respect to specification for earthworks materials and earthworks assessment. Liaison with contractor on geotechnical design issues.
- **N17/N18 Gort to Tuam High Quality Dual Carriageway**
Part of Geotechnical Team for Tender Design for approximately 27km of high quality dual carriageway. Assessing ground investigation data for preliminary earthworks design and outline structural foundation design.
- **Flughland Wind Farm**
Review and check of contractors proposed pile design and site supervision of the installation of bored piles for a windfarm development in County Donegal.
- **Slievecallan Wind Farm**
Site inspection of proposed wind farm including an assessment of peat stability. Geotechnical assessment of site by walkover inspection and report on Peat Stability at turbine locations and associated infrastructure.
- **A4/A5 NI DBFO Scheme 3 Realignment, Northern Ireland**
Senior Geotechnical Designer, value engineering, compiling earthwork design reports which included; cutting and embankment design – stability analysis of slopes, assessing settlement, pavement foundation design, assessing acceptability of material for re-usability, design for special measures such as soft ground issues, slope drainage and pile design for a pile supported embankment. Other duties included attending and corresponding with other disciplines, liaising with site staff and giving advice on earthworks.
- **Clonsilla to Dunboyne Railway Scheme**
Supervision of Site Investigation and Preparation of Interpretative Report for Railway Scheme. Includes the interpretation of ground conditions and design recommendations for all earthworks along the rail route, proposed bridge/culvert foundations, proposed and existing stations and proposed new roads.
- **Supervision of Site Investigations in Bailieborough, Cahir and Athlone**



Ian Higgins

Technical Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

For retail developments. Project manager, responsible for design and supervision of site investigations, interpretation of factual data and writing of interpretative reports for a series of retail developments on brownfield sites in Ireland.

- **Limerick Southern Relief Road**
Geotechnical checker for highway earthworks on scheme involving construction of stage constructed and monitored embankments over soft estuarine deposits.
- **N7 Nenagh to Limerick High Quality Dual Carriageway**
Part of Geotechnical Team for Tender Design for approximately 27km of high quality dual carriageway. Assessing ground investigation data for preliminary earthwork and outline structural foundation design.
- **M4/M6 Kinnegad-Enfield-Kilcock Motorway**
Geotechnical Designer's Site Representative for construction works. Responsible for ensuring the earthworks design was constructed in accordance with the design reports and the relevant specifications. Inspections carried out for all aspects of the earthworks, from removal of soft ground to sub formation and formation inspections for capping. Involved liaising with both the Design Manager for earthworks as well as the designer's site representative for structures, drainage and pavement design.
- **N4/M6 Kinnegad-Enfield-Kilcock Motorway**
Part of geotechnical design team for earthworks and structure foundation.
- **N25 Waterford Bypass**
Resident Engineer for the supervision of the Supplementary Ground Investigation for MMEPO/Tramore House (NRA).
- **R292 Sligo to Strandhill**
Slope stability assessment of sidelong ground embankment to be constructed on glacial till with restricted land access and weak subgrade.
- **N4/N6 Kilcock to Kinnegad Motorway**
Assessment of potential borrow areas for road construction material. Requirement to identify about 1M cubic metres of suitable and selected fill. Included walk-over survey, ground investigation and reporting of findings to tendering consortium.
- **St. Fintan's High School, Sutton**
Supervision of the remediation of ground subsidence due to underground tunnel works. Site representative for the school on remediation work, which included trenching, compaction by vibratory probe, placement of geotextile, compaction and reinstatement of ground. Report produced on findings.
- **M1 Northern Motorway, Gormanstown to Monasterboice**
Logging of rock faces in cuttings and determination of rock quality from borehole logs, laboratory results and field observations.
- **Powerstown Bioenergy EIAR**
Served as the hydrogeology and soils specialist for the Powerstown Bioenergy EIAR, providing expert analysis of groundwater, soil conditions, and potential environmental risks. Assessed project impacts and developed mitigation measures to ensure compliance with regulatory standards and protection of soil and water resources.

Geotechnics Ireland Ltd. – Engineering Geologist

- **Dundrum Town Centre Development**
Site representative during enablement works for town centre development in Dundrum. Involved hazard mapping of rock faces of up to 14m in height, monitoring of on-site blasting by contractor, monitoring of groundwater table fluctuations as excavation progressed, recording ground conditions in both soil and rock during excavation, and monitoring rock and soil slope stability.



Ian Higgins

Technical Director (Geotechnical)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Supervision of Site Investigations in Cookstown, Larne and Ballymoney for retail developments**
Project manager, responsible for design and supervision of site investigations, interpretation of factual data and writing of interpretative reports for a series of retail developments on brownfield sites in Northern Ireland.
- **M1 Dundalk Western Bypass**
Checking and processing of factual data for geotechnical interpretative report. Carried out desk study and walkover survey of route of proposed bypass. Checking of digital data (AGS) supplied by contractor.
- **M1 Dunleer-Dundalk Bypass Contract No. 3**
Logging of rock faces in cuttings and determination of rock strength and excavatability from borehole logs, laboratory results and field observations.
- **Xerox Production Facility, Dundalk**
Supervision and direction of site investigation including logging of trial pits, shell & auger and rotary core boreholes and dynamic probing for a major industrial development on the edge of Dundalk.
- **N25 Kilmacthomas Realignment**
Detailed logging of trial trenches excavated in rock along route of major cutting. Assessment of rock strength and excavatability from field observations.



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Pablo is a Chartered Civil Engineer with over 11 years' experience in planning, design and construction of hydraulic engineering projects and has experience working with Clients and Contractors. Specializing in hydraulic infrastructures, Pablo focuses on working with all project stakeholders to produce practical, efficient designs and on resolving issues that arise through the course of the works. Pablo has an excellent knowledge of hydraulic design, which extended to the creation of 'best-practice' guidelines, and has expertise drainage design, standards and tools. He has experience of delivering drainage designs in a D&B and PPP environment and has developed designs for construction in the UK, Ireland and Spain.

Key Skills

Pablo's qualifications and experience exceed the requirements for the role of Drainage/Flood Lead Engineer. He has achieved Bachelor's Degrees, a Master Degree, and Post-Graduate Diplomas in civil engineering disciplines up to NFQ Level 8 and 9, with a strong focus on hydraulic design, environmental infrastructures, SuDS and project management. Additionally, he has completed the Designing for Safety in Construction course and the Project Supervisor for the Design Process training, ensuring full compliance with industry safety standards and best practice. Pablo has over 11 years' experience as a civil hydraulic engineer specialising in drainage, SuDS, flooding, flood defences, and foul and watermain design for major roads and infrastructure projects. His work also includes preparing and reviewing hydraulic chapters for EIARs, ensuring that all assessments meet regulatory requirements and align with best practice in environmental compliance.

Previous Experience Essentials for this Project

Environmental Impact Assessment (EIAR) – Hydrology & Drainage Chapter

- **Powerstown Bioenergy EIAR, 2023-Present**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for Powerstown Bioenergy, Powerstown, Co. Carlow. The project includes the preparation of preliminary designs for drainage, rainwater networks, SuDS (wetland), pre-earthworks drainage, pump stations, hydraulic assessment of the existing network, a site-specific flood risk assessment, and the preparation of the hydrology and surface water management chapter, including the Water Framework Directive assessment, for the EIAR.

- **Cloonkett Wind Farm EIAR, 2024**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for the proposed wind farm at Cloonkett, Co. Clare. The project includes flood modelling of local rivers to assess the potential impacts on water levels arising from the proposed wind farm development, associated drainage design, EIAR chapters, and SuDS (Settlement ponds, swales).

- **Shanclon Wind Farm, 2024**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for the proposed Shanclon Wind Farm in County Mayo, responsible for

Key Information

Qualifications

B.E. Civil Engineering - University of Zaragoza, Spain (2014).

B.E. Technical Engineering in Publics Works - University of Zaragoza (2012).

Master's degree in project Management – Polytechnic University of Valencia, Spain (2025).

Post-Graduate Diploma in Project Management - Polytechnic University of Valencia, Spain, (2021).

Post-Graduate Diploma in Analysis and Design of Water Networks - Polytechnic University of Valencia, Spain, (2019).

Post-Graduate Diploma in Hydraulic and Environmental Infrastructures in Urban Areas - University of Zaragoza, (2012).

Certificated Diploma in Hydraulic Transient Analysis of Water Networks - Polytechnic University of Valencia, Spain, (2020)

Certificated Diploma PSDP – Institution of Occupational Safety and Health, Ireland, (2024)

Professional Memberships

Chartered Engineer, Engineers of Ireland 2023

Employment History

2022 to Present

Principal Engineer/Drainage Lead, Fehily Timoney and Company

2020 – 2022

Senior Project Engineer, J.B. Barry and Partner Ltd.

2016 – 2020

Senior Project Engineer, Clandillon Civil Consulting Ltd.

2015 – 2016

Assistant Project Manager, Société Générale de Surveillance

2014 – 2015

Design Engineer of hydraulic projects, Perez Benedicto, S.L.

2012 – 2012

Assistant Site Manager, Ingeniería y Obras Aragonesas del Ebro, S.L



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

coordinating drainage design, SuDS, flood modelling, Flood Risk Assessment, Section 50 applications, and stakeholder consultations. The project includes drainage design, flood modelling of floodplains and existing structures to assess the impacts of the proposed wind farm crossings and access roads, as well as SuDS design (wetlands and swales), and the preparation of the hydrology and surface water management chapter, including the Water Framework Directive assessment, for the EIAR.

- **Derrynadarragh Wind Farm EIAR, 2023 – 2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for the proposed wind farm in Derrynadarragh, Co. Kildare and Co. Offaly. The project involves flood modelling of the Cushina River to assess the potential impact on water levels resulting from the construction of the proposed wind farm, which includes nine turbines and access roads within the Cushina River floodplains, along with associated drainage design, as well as SuDS (settlement ponds and swales), and the preparation of the hydrology and surface water management chapter of the EIAR.

- **Ballinagree Wind Farm, 2023**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for the proposed Ballinagree Wind Farm in County Cork. The project includes a flood modelling of four crossings, floodplains, and existing structures to evaluate the potential impact on water levels resulting from the proposed construction of the proposed wind farm crossing and its associated access roads, and contribution to the EIAR chapters.

- **Barnadivane Wind Farm EIAR, 2023**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and the corresponding EIAR chapters for the proposed wind farm in Kneevies, Co. Cork. The project involves the culvert sizing for 8 crossing, section 50 applications and flood modelling to assess potential impacts water levels in the floodplains of the waterbodies, and contribution to the EIAR chapters.

Drainage, Flooding, Foul, Watermain & SuDS Engineering – Roads, Urban Environments, Greenways and Infrastructure

- **High Constellation Wind Farm, 2026-Present**

Lead drainage engineer for a 9 turbine Wind Farm in Scotland, U.K.

- **Adare Bypass, 2024-Present.**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the Third Party Checker review of the detailed design for the Adare Bypass, Adare, Co. Limerick. He reviewed all drainage design packages, including pre-earthworks and network drainages, attenuation and pollution control, and culverts, providing RFI reports with technical comments to the designer to improve the design and enable the issue of Design Certificates for the next stage of review with the Employer Representative.

- **South East Greenway, 2023-Present**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the South East Greenway, Co. Wexford. The project includes the preparation of detailed drainage designs, SuDS (raingardens, tree pits, permeable pavements), pre-earthworks drainage, culvert design, scour protection, attenuation and pollution control, flood modelling of existing streams, and flood risk assessments.

- **Gorey Relief Road, 2023-Present**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the Gorey Relief Road in Bantry, Co. Wexford. The project includes the preparation of detailed drainage designs, SuDS (wetland), pre-earthworks drainage, watermain and foul drainage, culvert design, scour protection, attenuation and pollution control, flood modelling of existing streams, flood compensation areas, and the preparation of a Section 50 application.

- **Bantry Relief Road 2023-Present**

Pablo is the Lead Engineer Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the Bantry Relief Road in Bantry, Co. Cork. The project involves the preparation of detailed drainage designs, SuDS (Wetland), pre-earthworks drainage, network drainage, culvert design, stilling basins, scour protection, attenuation and pollution control, flood modelling of existing streams, flood compensation areas and a Section 50 application.



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Cork County Bridge Rehabilitation Framework, 2025-Present**

Pablo is the Drainage Lead Engineer, responsible for coordinating and supervising the flood modelling and Section 50 applications under the Cork County Council Framework. The project involves flood modelling of multiple rivers, bridges, and culverts to assess the potential impacts on water levels resulting from the proposed solutions and to support the preparation of the required Section 50 applications.

- **Ballyogan Landfill, 2025-Present**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the preliminary design and option routes for Ballyogan Landfill, Dublin, Co. Dublin. The project includes the preparation of the preliminary design for the diversion of existing stormwater and leachate networks.

- **Woodstock Carrigtwohill SFRA, 2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating and supervising the flood modelling, flood risk assessment, and stakeholder consultations for the Woodstock site, Carrigtwohill, County Cork. The project includes a 2D flood model of the catchment and development site, floodplains, and existing streams, culverts, roads, and railways, as well as the preparation of the Site-Specific Flood Risk Assessment.

- **Cashel Road Active Travel, 2024-2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for the coordination, supervision, and delivery of the detailed drainage design for the Cashel Road Active Travel Scheme in Clonmel, Co. Tipperary. The project includes network drainage design, SuDS (a 380 m-long raingarden), attenuation and pollution control, as well as the preparation of specifications and contract documents.

- **Knockpogue Active Travel, 2024-2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the Knockpogue Active Travel scheme in Cork City. The project includes the preparation of detailed drainage designs, network drainage, SuDS (raingarden), attenuation and pollution control measures, as well as specifications and contract documents.

- **Kerry Pike Active Travel, 2024-2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for the coordination, supervision, and delivery of the detailed drainage design for the Kerry Pike Active Travel Scheme in Kerry Pike, Co. Cork. The project includes network drainage design, attenuation-pollution control, and the preparation of specifications and contract documents.

- **Castlemeadows Active Travel, 2024-2025**

Pablo is the Lead Engineer Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the Castlemeadows Active Travel, Clonmel, Co. Tipperary. The project involves the preparation of detailed drainage designs, network drainage, attenuation and pollution control, Specifications and contract documents.

- **Saint Joseph Active Travel, 2024**

Pablo is the Lead Engineer Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the St. Josheph School Active Travel, Macroom, Co. Cork. The project involves the preparation of detailed drainage designs, network drainage, attenuation and pollution control, Specifications and contract documents.

- **Gallanes Walkway Clonakilty, 2024**

Pablo is the Lead Engineer Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the Gallanes Walkway, Clonakilty, Co. Cork. The project involves the preparation of detailed drainage designs, network drainage, attenuation and pollution control, Specifications and contract documents.

- **Drehid Wind Farm EIAR, 2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating and supervising the Flood Risk Assessment and flood modelling for the proposed wind farm at Drehid, Co. Kildare. The project includes flood modelling of local rivers to assess the potential impacts on water levels arising from the proposed wind farm development, associated drainage design, and SuDS.

- **Gorey Bypass Culvert N11, 2024-2025**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating, supervising, and delivering the hydraulic assessment for the Gorey Bypass Culvert on the N11, Co. Wexford. The project involved the preparation of a hydraulic assessment of the existing Culvert D2 and the N11 drainage network, identifying current hydraulic capacities and proposing solutions to improve performance.

- **Cahir to Cashel Greenway, 2024**



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating and supervising the Flood Risk Assessment, flood modelling, and drainage design for the proposed Greenway between Cahir and Cashel, Co. Tipperary. The project includes the assessment of flood zones and the evaluation of potential impacts on the proposed greenway route.

- **Ballynahone Long Duration Battery EIAR, 2024**

Pablo is the Lead Engineer for Drainage and Flooding, responsible for coordinating and supervising the Flood Risk Assessment, flood modelling, and drainage design for the proposed Battery Storage facility at Ballunajone, Co. Donegal. The project includes the preliminary design of drainage systems, PED, and SuDS (wetland and swales).

- **South Kerry Greenway, 2024**

Pablo is the Lead Engineer Drainage and Flooding, responsible for coordinating, supervising, and delivering the detailed design for the South Kerry Greenway, Co. Kerry. The project involves the preparation of Preliminary drainage designs, pre-earthworks drainage, network drainage, culvert design, stilling basins, scour protection and Section 50 applications.

- **Cork County Bridge Rehabilitation Framework, 2024**

Pablo is the Drainage Lead Engineer, responsible for coordinating and supervising the flood modelling and Section 50 applications under the Cork County Council Framework. The project involves flood modelling of multiple rivers, bridges, and culverts to assess the potential impacts on water levels resulting from the proposed solutions and to support the preparation of the required Section 50 applications.

- **Nenagh Pedestrian & Cycle Scheme, 2023**

Pablo is the drainage lead engineer, responsible for coordinating and supervising the flood modelling, Site Specific Flood Risk Assessment and Section 50 Applications for the proposed Pedestrian and Cycle Scheme in Nenagh, Co. Tipperary. The project involves a flood modelling of Nenagh River, flood plains and existing structures to assess the potential impact on water levels resulting from the proposed construction of the proposed pedestrian and cycle track along the Nenagh River floodplains.

- **Flood Mitigation Works at IDA National Technology Park, 2023 -2025**

Pablo was the Drainage Lead Engineer, responsible for coordinating and supervising the drainage teams and their designs for the Flood Mitigation Works at IDA Park in Limerick, Co. Limerick. The project involved the design of storm drainage networks, attenuation and pollution control, SuDS (large wetland and swales), perimeter swales to regulate groundwater, settlement ponds, and culvert design.

- **Agricultural Building Barryscourt, 2023**

Pablo is the Drainage Lead Engineer, responsible for coordinating and supervising the flood modelling, Flood Risk Assessment, Drainage Impact Assessment, and stakeholder consultations for the proposed Agricultural Building Barryscourt in Carrigtwohill, County Cork. The project includes a flood modelling of the proposed development, floodplains, and existing embankments evaluate the potential impact on water levels resulting from the proposed project.

- **Old Bridge to Suir Blueway Link, 2023**

Pablo was the drainage lead engineer, responsible for coordinating and supervising the flood modelling of the River Suir in Clonmel, Co. Tipperary. The project involves a flood modelling of the River Suir to assess the potential impact on water levels resulting from the proposed extension of the blueway located on the River Suir floodplains.

- **Ballylickey Flood Defences, 2023.**

Pablo was the drainage designer for the Flood Defences Study in the Ballylickey, Co. Cork. The project involves the hydrological and hydraulic analysis of the river Owvane, river modelling using Hec-Ras under the tide water level regime of the area, provide the required flood defences to protect the existing properties and the road R584 located on the right bank of the river.

- **N72/N73 Mallow Relief Road, 2023.**

Pablo was the drainage designer for the flood studies which involves one bridge (32m span) and 5 culverts of large dimensions, a flood compensation area, flood maps, section 50 applications and the technical report.

- **N22 Baile Bhuirne to Macroom, Detailed Design, 2023.**

Pablo was working on the drainage design. This role involved the delivery of the following tasks: preparation of conceptual drainage designs, pre-earthworks drainage, network drainage, culvert design, stilling basin, scour protections, attenuation and pollution control, 3D modelling of drainage designs using Micro-drainage, updating drainage designs following review, preparation of design at key submission stages, further optimization of models, preparation of drainage schedules, design of SuDS drainage systems prior to draining to receptor and preparation of final model for submission. Pablo provided supervision, support, and technical advice to the team member of the Drainage team.

- **N5 Ballaghaderren to Scramoge Road Project, 2022.**

Pablo was the Third-Party Checker for the drainage design packages in the construction of 34 km of a new single carriageway road from the western end of the existing N5 Ballaghaderren Bypass to the townland of Scramoge in county Roscommon. He was



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

responsible for reviewing all the drainage design packages of the project: pre-earthworks drainages, networks drainages, attenuation and pollution control, and culverts.

He provided RFI reports to the designer company with technical comments to improve their design with the goal to provide the Design Certificates to allow the design to go to next step of review with the Employer Representative.

- **Ten-T Section 1 – N15/N13 Ballybofey / Stranorlar Urban Region, 2022.**

Pablo was the drainage designer responsible to deliver the Flood Study including hydrological analysis, hydraulic analysis, flood maps and section 50 application for the existing and proposed bridge in the river Finn.

- **N16 Lugatober Drumkilsellagh to Lugnagall, 2021.**

Pablo supervised the team members and provided technical advice to the Project Manager. He was responsible for developing designs for scour protections in streams, culverts, and abutments. Additionally, he thoroughly reviewed and refined hydraulic models for streams and culverts to ensure that they met the project's requirements.

- **Temporary HGV Parking Facility, 2020.**

Pablo was the Drainage Designer of this project, this role involved the delivery of the following tasks: preparation of conceptual drainage designs, network drainage, attenuation and pollution control, 3D modelling of drainage designs using Microdrainage, preparation of drainage schedules, design of SuDS drainage systems prior to draining to receptor and preparation of final model for submission. Pablo provided supervision, support and technical advice to the team member of the Drainage team.

- **N4 Collooney to Castlebaldwin, Detailed Design, Major Road , 2020.**

Detailed Design: Drainage designer with responsibility for completing detailed drainage network design to optimize the overall design for the Contractors on a 14km major road project. Provided technical advice and guidance to the Project Manager and team members, supervise team members, develop 3 flood studies for river and lakes, design of a hydraulic control to control water levels in lakes (weir), design and optimization of extensive drainage networks and APC systems (Attenuation pond and linear wetlands), culvert design, design of SUDS and pre-earthwork drainages, design of surface water channels, preparation of section 50 and 47 applications to the OPW. Tender Design: Pablo was the drainage designer with responsibility for preparing drainage tender design for submission as part of tender package for the bidding Contractor. Work included review of different drainage options to optimise the final design including the design of sealed drainage system in areas of underlain by karstified bedrock or prone to flooding, assessment of culvert and pipe sizing, attenuation pond sizing for attenuation and pollution control and production of drainage schedules and drawings. Drainage models were produced using Civil3D and Autodesk Storm & Sanitary Analysis software.

- **N8 Dunkettle Interchange Upgrade Scheme, 2020.**

As part of CCC's drainage design team for this complex road project, Pablo was working on the drainage design for the interchange scheme and various linkages. This role involved the delivery of the following tasks: review of drainage design statement, preparation of conceptual drainage designs, pre-earthworks drainage, network drainage, culvert design, attenuation and pollution control, 3D modelling of drainage designs using Micro-drainage, updating drainage designs following review, preparation of design at key submission stages, further optimization of models, preparation of drainage schedules, design of SuDS drainage systems prior to draining to receptor and preparation of final model for submission. Pablo provided supervision, support, and technical advice to the team members of the Drainage team.

- **N5 Westport to Turlough Road, 2020.**

As part of the detailed design for this 6.9km national road upgrade project, Pablo completed the flood study including flood mapping for existing and proposed structures using HEC-RAS proprietary hydraulic analysis software. The design of a further five culverts was completed using Civil 3D and CulvertMaster software packages.

- **N56 Lettermacaward to Glenties (Kilraine), Detailed Design, 2020.**

As part of the detailed design for this 6.9km national road upgrade project, Pablo completed the flood study including flood mapping for existing and proposed structures using HEC-RAS proprietary hydraulic analysis software. The design of a further five culverts was completed using Civil 3D and CulvertMaster software packages.

- **Ulster Canal Green Way Phase 3, Constraints Report, 2019.**

As part of the development of the constraints study, Pablo undertook a desktop review and a site visit of the study area with a view to identifying and mapping engineering constraints present along each of the potential route corridors which had been identified. The site walkover involved carrying out checks of existing embankments along the canal, identifying evidence of historic flooding and developing an interactive database of photos (normal and 360 spherical photos) along the canal.



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **High Speed 2 Early Works Package WP51 Drainage (HS2 EWC WP51), 2018.**

Pablo was the Drainage Designer for Work Package 51 which forms part of the HS2 enabling works. This role involved the delivery of the following tasks: review of drainage design statement, preparation of conceptual drainage designs, pre-earthworks drainage, network drainage, culvert design, attenuation and pollution control, 3D modelling of drainage designs using Microdrainage, updating drainage designs following review, preparation of design at key submission stages, further optimisation of models, preparation of drainage schedules, design of SuDS drainage systems prior to draining to receptor and preparation of final model for submission. Pablo provided supervision, support and technical advice to the team member of the Drainage team of Ramboll in the Birmingham office.

- **A9 Luncarty – Pass of Birnam, Tender Design, 2018.**

Pablo was the Drainage Designer responsible for checking and developing all elements of the specimen drainage design on the 9.5km A9 Luncarty – Pass of Birnam tender in Scotland. Pablo was responsible to review and provide optimizations for the drainage networks, attenuation pollution control ponds, culverts, pre-earthworks drainages, cross drains, networks schedules and drawing for quantities, the drainage tender design for submission as part of the tender package for the building contractor.

- **Mullinure, 2018.**

Pablo was the Drainage designer for link road associated with a residential development area in Co. Armagh, Northern Ireland. Specific project tasks included the development of pre-earthworks, network drainages and attenuation facilities. Outputs included: preparation and analysis of drainage model incorporating surveys and existing data using Autodesk Storm and Sanitary Analysis and Civil 3D, design and development of drainage standard details, design of pre-earthworks drainage system, developing carrier drain design networks and gully layouts, preparation of drainage specification, finalisation of drainage drawings and preparation of drainage package for submission.

- **A737 Dalry Bypass Contractor's Designer, 2017.**

Pablo was the Drainage designer responsible for delivery of pre-earthworks drainage, culverts, network drainage and attenuation design on a 4km D&B highways project in Scotland. Drainage design involved the following works: networks and pre-earthworks drainage to 3.8km carriageway (2.45km 2 + 1 with overtaking lanes and 1.35km single carriageway), substantial incorporation of overland flow into some mainline networks, 6 no. culverts and 2 no. stream diversions, 5 no. outfalls to existing surface waters via SUDS basins and additional outfalls to existing drainage networks, deck drainage to 250m viaduct over Garnock River, consultation with SEPA and production of CAR applications, modelling of all networks and SUDS systems using Civil 3D Storm and Sanitary Analysis module to agree parameters from contract documents and discussion with SEPA.

- **N25 New Ross Bypass , 2017.**

Pablo was the drainage designer responsible to deliver the Flood Risk Assessment including hydrological analysis, hydraulic analysis for the existing and proposed scenario in the river Barrow and the stream Aughnacrew. Provide the 1D hydraulic model for the mentioned scenarios, prepare the flood maps, drawings, and the corresponding report.

- **Pembroke Hill, 2017.**

Pablo was the Drainage Designer responsible to deliver the design the drainage design for a new link road associated with a residential development area in CO. Wexford, Ireland. The project involves network drainage, attenuation and pollution control (attenuation ditches), pre-earthworks drainages, cross drains and a settlements analysis. The relevant achievement in the project involved the optimization of the network drainages using over the edge interceptor ditches, the implementation of check dams in the attenuation ditches to provide the attenuation and treatment.

- **Leanamore Wind Farm, 2017.**

Pablo was the Drainage Designer for the project Leanamore Wind Farm, which comprised of 9 Wind Turbine Generators (WTG), a substation, a large contractor compound; 5 km of services route comprised both floated and founded construction. The project involves extensive ditch networks, cross drains and facilities treatment. The relevant achievement in the project involved the temporary and permanent drainage networks (ditch networks) and the settlement ponds, hydrologic and hydraulic analysis of the area, prepare standard details, site visits, meeting with the Client and Contractor.

- **PDM Infrastructure, 2017.**

Drainage Designer assisting in the development of drainage and attenuation systems as part of the refurbishment of a 17Ha commercial development in Co. Kildare. The works were procured under an ECI target cost model and involved the design and construction of separate foul, surface water and roof water systems, attenuation measures and a waste-water treatment plant. Works included the assessment of an existing drainage system and catchment analysis before development of a detailed drainage design with separate systems for roof and surface water. Optimisation of the design resulted in reduction of main spine road collector pipe diameter and reductions in trench depths and slopes where feasible.



Pablo Delgado

Lead Engineer - Drainage & Flooding



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

- **Modernisation of irrigation system of “Molinar del Flumen” phases I and II, Spain, 2016.**

Pablo was the Technical Assistant of the Project Manager for Molinar del Flumen Project which was a modernisation of the existing irrigation system in the Province of Huesca, Spain. The project involves the construction of a new pressure irrigation network including the installation of extensive pipes pressure pipes (approximately 42km), valves, an irrigation reservoir and a pump station. The relevant achievements in this project involved technical assistance, support and advice to the project manager, supervised the installation of different pressures pipes, valves, pump stations, material movement, meetings with the contractor and suppliers, provide environmental reports, quantities reports.

- **Flood Risk Study of the gravity pipeline for the Avenida de la Industria, Spain, 2015.**

Pablo was the Drainage Designer of the flood risk study for the network drainage of the Avenida de la Industria, Zaragoza, Spain. The relevant achievement in this project involved the analysis of the existing hydraulic capacity of the network drainage, the redesign of the network to increase the hydraulic capacity, site inspections, meeting with the client, the preparation of drawings, networks schedules, hydraulic models and quantities.

- **Drainage Network for the new development in the Air Base of Zaragoza, Spain, 2015.**

Pablo was the Drainage Designer for a new development in the Air Base of Zaragoza, Spain. The relevant achievement in this project involved the hydrologic and hydraulic analysis of the area, the design of a new network drainage, cross drains and pre-earthwork drainages.

- **Flood Risk Protection System for the BSH Factory La Cartuja, Zaragoza, Spain, 2015.**

Pablo was the Drainage Designer of the flood risk study for the network drainage of the factory BSH La Cartuja, Zaragoza, Spain. The relevant achievement in this project involved the design of new network drainage and storage tanks, site inspections, meeting with the client, the preparation of drawings, networks schedules, hydraulic models and quantities.

- **Hydraulic and flood risk study of the gravity pipeline system for the industrial state “INSIDER”, 2015.**

Pablo was the Drainage Designer of the flood risk study for the main collector of the network drainage of the industrial state INSIDER, Zaragoza, Spain. The relevant achievement in this project involved the design of a new pipe line and the design of off-line storage tanks, site inspections, meeting with the client, the preparation of drawings, networks schedules, hydraulic models and quantities.

- **Reform of the theatre and communal zones of the “Colegio Mayor Universitario Virgen del Carmen”, 2012.**

Pablo was the Assistant of the Site Engineer for the project “Colegio Mayor Virgen del Carmen” in Zaragoza, Spain. This project comprised the modernization of the theatre and the communal zones of “Colegio Mayor Universitario Virgen del Carmen”. The relevant achievement in this project involved technical assistance of the Site Engineer, supervision of the supply material, human resources and works; updated the work planning, prepare the scaffolding plan and provide the monthly valuation and progress reports.



Sara Hernandez Sosa

Senior Engineer



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Sara is a Civil Engineer and Chartered Engineer with nine years of experience across civil engineering projects, including planning, design and construction in urban, transport, drainage, and infrastructure planning projects. Familiar with civil and construction regulations and with solid knowledge of CAD and specialist civil engineering software. Specializing in hydraulic infrastructure, Sara has worked on a variety of projects, including infrastructure and renewable energy projects, to produce practical, efficient designs and resolve issues that arise during the work.

Key Skills

Sara’s academic background and professional training align strongly with the requirements for the Senior Engineer role. She holds a master’s degree in civil engineering, equivalent to NFQ Level 9. Additionally, she has completed the Designing for Safety in Construction and Project Supervisor Design Process courses to ensure compliance with safety standards and best practices in the industry. Sara has nine years of experience as a civil engineer in Ireland, working on large roads and infrastructure projects. Initially, she gained experience in various disciplines on these projects, and in recent years, she has specialized in hydraulics.

Previous Experience Essentials for this Project

- Gorey Relief Road- Ballytegan Avenue, 2025-Present**
Sara is the Senior Project Engineer and is responsible for preparing the Section 50 Applications and the Flood Risk Assessment for the watercourse crossings within the project. The project involves the design of culverts and hydraulic modelling of the watercourses to assess potential impacts on water levels arising from the proposed road construction, as well as the design of mitigation measures such as a flood compensation area.
- Bioenergy 001, 2025-2026**
Sara worked as a Senior Project Engineer, carrying out the preliminary drainage design for this AD plant and preparing the EIAR Surface Water and Hydrology Chapter, as well as supporting the development of associated reports. She also assessed the impact of the proposed gas route at watercourse crossings and undertook a site visit to inform this assessment.
- Bantry Relief Road, €184, 2023-2025**
Sara worked as a Senior Project Engineer and was responsible for preparing the culverts design, which includes the flood modelling of existing streams and the preparation of the Section 50 Application. The works involved replacing and extending existing culverts, designing new ones with watercourse diversions, and implementing mitigation measures such as energy dissipators and compensation storage areas.
- Derrynadarragh Wind Farm EIAR, €340K, 2023 – 2025**
Sara was the Senior Project Engineer and was responsible for preparing the Flood Risk Assessment and flood modelling of the proposed wind farm in Derrynadarragh, Co. Kildare and Co. Offaly. The project involves a flood modelling of the Cushina River to assess the potential impact on water levels resulting from the proposed construction of the proposed wind farm with 9 turbines and access roads in the Cushina River floodplains.
- A5 Western Transport Corridor, 2024**
Sara worked on the drainage networks and attenuation design based on the Specimen Design for a major road project in Northern Ireland, planned to be a dual

Key Information

Qualifications

Master’s Degree, Civil Engineering:
Roads, Canals and Ports
Engineering (2013).

Bachelor’s Degree, Civil
Engineering: Public Works
Engineering-Specialty in civil
construction (2011).

Professional Memberships

CEng MIEI- Chartered Engineer,
Engineers Ireland

Employment History

April 2026- Present

Senior Engineer, Fehily Timoney and
Company

2023 to April 2026

Senior Project Engineer, Fehily Timoney
and Company

2019 – 2023

Design Engineer, J.B. Barry and Partner
Ltd.

2018 – 2019

Junior Civil Engineer, Jacobs-Ch2m

2017 – 2018

Graduate Civil Engineer-Jacobs-Ch2m

2016 – 2017

Assistant Site Manager-Severfield (UK)

2015 – 2015

Commercial Project Assistant-Joju Solar
(UK)



Sara Hernandez Sosa

Senior Engineer



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

carriageway. This was required to assist the Contractor in estimating the time and, therefore, the cost, required to develop the Specimen Design into a detailed design for a Design & Build Contract, as well as to document any issues encountered with the Specimen Design.

- **Gallanes Walkway Clonakilty, 2024**

Sara was responsible for preparing the detailed drainage design for this Active Travel project. This role involved designing the network drainage, attenuation, and pollution control through 3D modelling using Infodrainage software.

- **Kilmorna Solar Farm, 2024**

Sara prepared the drainage design for planning application of a large solar farm. To do this, she organized a site visit to assess the existing drainage conditions. In addition, she reviewed and provided guidance on various elements and tasks relating to drainage and flooding.

- **Drehid Wind Farm, 2024**

Sara was responsible for preparing the drainage design for the planning application of this Wind Farm. To support this, she conducted a site visit to assess the existing hydrology and record relevant drainage features. Following this, she trained and supervised a junior engineer, providing guidance through the necessary tasks to ensure the completion of a quality and compliant design.

- **N22 Baile Bhuirne to Macroom, Detailed Design, €280m, 2020-2022.**

Sara worked on the detailed drainage design for this Design & Build project. This role involved the delivery of the following tasks: preparation of detailed design of pre-earthworks drainage, network drainage, culvert design; 3D modelling of drainage designs using Causeway Flow software, updating designs following review, preparation of design at key submission stages and preparation of drainage schedules.

- **Ten-T Section 3 – N14 Manorcunningham to Lifford / Strabane / A5 Link), €90m, 2020-2022.**

Sara carried out the preliminary drainage design for Section 3 of the project and she addressed various drainage elements including: pre-earthworks drainage, preliminary drainage network design and attenuation pond sizing using Causeway Flow software and the design of Section 50 Culverts utilizing Culvert Master and HEC-RAS. She also worked on the preparation of key reports such as the Preliminary Design Report for Drainage, EIAR Water Chapter and the Flood Risk Assessment Report. She held meetings with the Loughs Agency and the OPW to discuss culvert design requirements from both environmental and hydraulic perspectives.

- **N/M20 Cork to Limerick Road Improvement Scheme, 2019-2023**

Sara worked on this large-scale highway project across Phases 1 to 3. Her responsibilities in Phase 1 & 2 included: conducting data collection, preparation of reports and assessment of road-based scenarios and options, supervising and reviewing tasks completed by junior engineers and participating in the public consultation process by chairing over 30 landowner meetings. At the start of Phase 3, she priced design packages and deliverables and she worked on the preliminary drainage and flooding design, collaborating with the company partner.

- **Luas Light Rail Extension-Broombridge to Finglas, 2022**

This project involved extending Dublin's light rail tram system across the River Tolka. Sara carried out the hydrological calculations and the flood modelling in HEC-RAS and submitted the Section 50 Application to the OPW.

- **N21 Devon Cross and Wards Cross, 2019**

These two projects were undertaken for the same Client, with N21 Devon Cross at the preliminary design stage and Wards Cross at the detailed design stage. Both projects aimed to address road safety concerns due to collision histories on the roads. Sara developed multiple preliminary design options for N21 Devon Cross, including identifying an additional option that had not been considered initially, which led to additional work and fees for the company. She also prepared the report for this stage, highlighting the various options and their implications.

For Wards Cross, she focused on the detailed design and report preparation, working on TII Departures.

- **N11 Brewery Road Safety Improvement Scheme, 2019-2022**

This project aimed to improve safety for all road users on a section of Brewery Road (N31), as identified by the County Council in conjunction with the NTA. Sara was responsible for the preparation of the Site Investigation Works Contract, including drawings, work requirements, Preliminary H&S Plan and all the relevant documents that comprise the package. She attended meetings with the Client and Contractor and supervised and monitored the Contractor's work on site. In addition, she worked on the main contract documents and design. She liaised and coordinated with various disciplines.

Tony Cummins BA, MA, MIAI

Profile

TONY CUMMINS is a Senior Archaeologist with John Cronin and Associates and is a full member of the Institute of Archaeologists of Ireland. He has accumulated over 30 year's post-graduate experience and was accredited as a licence-eligible archaeologist by the National Monuments Service in 1998. Since that time, he has directed numerous site investigations in Ireland as well as participating in archaeological projects in Britain and Lebanon. He has also accumulated extensive experience as a senior archaeological project manager responsible for directing advance site investigations and supervising the construction phases of large-scale road schemes such as the Limerick Southern Ring Road and the Waterford City Bypass.

Tony has prepared cultural heritage impact assessments for a wide range of infrastructure projects during recent decades and has extensive experience in the preparation of screening/option studies and impact assessment reporting, as well as undertaking field surveys, directing advance site investigations, liaising with geophysical specialists and supervising construction phase works. These projects have included the assessment of the significance of potential effects on cultural heritage assets, based on appraisals of potential magnitude of effects in combination with the appraisal of the values/sensitivity of relevant assets. His inputs to projects have also been based on relevant EPA guidance, legal frameworks, planning policies and professional guidelines, as well as consultations with planning authorities and relevant national agencies.

An important element of his inputs to the design and assessment phases of projects has been consultations with multi-discipline teams and the contribution of specialist advisory services during the formulation of appropriate design and mitigation measures, including appraisals of potential interactions with other disciplines. He has liaised with with planning and national authorities during consultation processes and has also presented expert evidence at Oral Hearings, e.g. South Kerry Greenway project.

Professional Qualifications

Batchelor Degree (Archaeology) University College Cork, 1992

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

Key Skills

- Licence-eligible Archaeologist
- Researcher
- Field Surveyor
- Preparation of Constraint Reports, Option Assessments and Impact Assessments
- Archaeological Project Manager on Infrastructure Schemes
- Proficient in GIS project mapping use: metadata provision and map-based assessment
- Cultural Heritage consultant within multi-discipline project teams
- Client representative during consultations with statutory and non-statutory bodies

Previous Experience

Mortarstown Wastewater Treatment Plant EIAR, Co. Carlow (ongoing)

Inputs to this project comprised the preparation of the Cultural Heritage impact assessment of the construction of wastewater treatment infrastructure, including pipeline connection routes within public roads. This included desktop research and field inspections of cultural heritage assets located within lands adjoining the pipeline route within public roadways.

South Kerry Greenway EIAR, Co. Kerry:

Inputs to this project included the preparation of a Cultural Heritage impact assessment based on detailed desktop research and field inspections of historic railway infrastructure as well as presenting expert evidence at the Oral Hearing stage.

Ballinagree Wind Farm EIAR, Co. Cork

Inputs to this project included the preparation of the Cultural Heritage impact assessment for the wind farm location as well as the associated grid connection route within public roads. This included desktop research and field inspections of cultural heritage assets located within lands in proximity to roadways along the grid connection route.

Fort Mitchell Project, Spike Island, Co. Cork

Inputs to this project included the preparation of method statements, applications for Ministerial Consents and supervision of ground works to facilitate upgrading of underground pipeline services within this National Monument in the ownership of Cork County Council. This project also included ongoing consultations with the Cork County Council Archaeologist and the National Monuments Service in relation to the conservation of sub-surface remains of historic structures identified during onsite works.



PERSONAL PROFILE

Nicole holds a Master of Landscape Architecture from University of British Columbia and a Master of Science in Applied Coastal and Marine Management from University College Cork. Nicole is from Alberta, Canada, and has studied and worked in Canada, New Zealand, and Ireland. Her main field of interest is landscape planning, specifically Landscape and Visual Impact Assessment (LVIA), with a focus on coastal projects. Nicole has completed LVIAs within Ireland and the UK for a range of development types, including National Infrastructure Projects and Strategic Infrastructure Developments, wind and solar energy developments, water treatment plants, and linear infrastructure projects. Recent work includes assessments for large-scale solar developments, on-shore wind farm developments, and greenway developments.

EDUCATIONAL AND PROFESSIONAL STATUS

- Bachelor of Architectural Studies, majoring in Landscape Architecture – Victoria University of Wellington (Te Herenga Waka)
- Master of Landscape Architecture – University of British Columbia
- Master of Science in Applied Coastal and Marine Management – University College Cork (Coláiste na hOllscoile Corcaigh)

EMPLOYMENT HISTORY

- 2025-Present – Senior LVIA Consultant, Macro Works Ltd.
- 2023-2025 – Landscape Architect and LVIA Specialist, AECOM
- 2021-2023 – Assistant Landscape Architect, Cunnane Stratton Reynolds

FURTHER EXPERIENCE

- 2022-Present – Volunteer Project Ecologist, Nature Network Ireland

SELECTED RECENT PROJECT EXAMPLES

Drum Anaerobic Digestion Plant. A proposed anaerobic digestion plant and associated infrastructure, located in Co. Monaghan. Nicole produced part of the LVIA for this project.

Askeaton Wastewater Treatment Works. A proposed new wastewater treatment plant and pumping station, located near Askeaton, Co. Limerick. Nicole is producing the LVIA for this project.

Dub50 SID Underground Cable Connection. A proposed underground cable connection and associated substation development, comprising part of a large-scale solar farm, data centre, and residential project, located in Co. Waterford. Nicole produced the LVIA for this project.

Killamaster Solar and BESS. A proposed 153 Ha. solar farm development and associated Battery Energy Storage System (BESS), located within an agricultural area across Counties Carlow and Kildare. Nicole is producing the LVIA for this project.

North Mayo Wind Farm Feasibility Study. A proposed wind energy development comprising 31 no. turbines rising to a maximum height of 200m, located near the Nephin Range in Co. Mayo. Nicole produced the feasibility study for this project.

Cushina Wind Farm. A wind energy development comprising 10 no. turbines rising to a maximum height of 220m within an area of cutaway peatland, located in Co. Offaly. Nicole is producing the LVIA for this project.

Meridian Solar Farm. A proposed National Infrastructure Project which comprises a solar photovoltaic (PV) and electrical battery storage generating facility with a generation capacity of up to 750MW, and associated infrastructure and development, located in Lincolnshire, England. Nicole produced part of the LVIA for this project.

Connah's Quay Low Carbon Power Project. A proposed National Infrastructure Project which comprises a low-carbon combined cycle gas turbine electricity generating station of up to 1380MW net electrical output, and associated development and infrastructure, located in Flintshire, Wales. Nicole produced part of the LVIA for this project.

Cwm Taf Water Supply Strategy. A proposed project comprising new water treatment works facilities and associated infrastructure upgrades, located within two sites near Merthyr Tydfil, Wales. Nicole produced part of the LVIA for this project.

Western Isles HVDC Link Project. A proposed project to connect onshore and offshore wind in and around the Western Isles to the GB transmission system. The section of the project Nicole worked on comprised a proposed onshore underground cable connection, 80km in length, located in Scotland. Nicole produced part of the LVIA for this project.

Sutton-on-the-Forest Solar Project. A proposed 49.9MW solar farm development, including battery energy storage, located in Yorkshire, England. Nicole produced part of the LVIA for this project.

Newry Southern Relief Road. A proposed strategic road link between the A1 Dublin Road dual carriageway and A2 Warrenpoint dual carriageway, located near Newry, Northern Ireland. Nicole produced part of the LVIA for this project.

Galway to Oughterard Greenway. A proposed greenway along a historic railway line in Co. Galway. Nicole produced part of the LVIA for this project.

Derrigimlagh to Kylemore Greenway. A proposed greenway in Connemara from Derrigimlagh to Kylemore Abbey via Clifden, located in Co. Galway. Nicole produced part of the constraints study for this project.

Barnesmore Gap Greenway. A proposed greenway between Donegal Town and Balleybofey and Stranorlar, located in Co. Donegal. Nicole produced part of the LVIA for this project.

BusConnects Cork. A proposed linear infrastructure development comprising a series of 'Sustainable Transport Corridors' along key bus routes located in Co. Cork. Nicole produced part of the landscape plan for this project.



CURRICULUM VITAE

MARK SALISBURY

ASSOCIATE DIRECTOR - LANDSCAPE ARCHITECT

BA (HONS), DIP LA, CMLI (2013)

PERSONAL PROFILE

Mark moved to the UK from his home in Guernsey (Channel Islands) to attend University, following which he based himself in Yorkshire. In 2017, after several years working within multi-disciplinary environmental and planning consultancies, Mark moved to Northern Ireland where he worked for The Paul Hogarth Company before joining Macro Works (part of APEM Group) in 2023. Over the course of his professional career, Mark has gained extensive SLVIA/LVIA/TVIA experience across the UK and Ireland, in a variety of development contexts including major infrastructure projects, residential developments, tall buildings, wind and solar energy developments, industrial and commercial developments, Whisky distilleries, and a variety of different mineral extraction sites. Many of these projects were carried out in or near seascapes / landscapes / townscape with designated sensitivities, including Conservation Areas, World Heritage Sites, Areas of Outstanding Natural Beauty and National Parks, where place specific design and mitigation responses were required. Mark has also delivered guest lectures to the University Sheffield Landscape course in relation to the process and application of LVIA thinking in practice.

EDUCATIONAL AND PROFESSIONAL STATUS

- BA (Hons) Landscape Architecture and Town Planning - University of Sheffield 2005
- Diploma Landscape Architecture - University of Sheffield 2007
- CMLI Chartership Landscape Institute 2013

EMPLOYMENT HISTORY

- 2023 – Present – Macro Works - Associate Director
- 2017 – 2023 - The Paul Hogarth Company – Associate Landscape Architect
- 2014 - 2017 - Pegasus Group - Senior Landscape Architect
- 2008 - 2014 - Scott Wilson / URS - Landscape Architect
- 2005 - 2006 – White Young Green - Graduate Landscape Architect

SELECTED RECENT PROJECT EXAMPLES

Wind - 10+ Wind Energy Projects - Feasibility, Design Optimisation and LVIA, with experience gained in Ireland and the UK (including projects in Scotland, England, Wales, and Northern Ireland).

Solar 10+ Solar Energy Projects - Feasibility, Design Optimisation and LVIA, with experience gained in Ireland and the UK (including projects in Scotland, England, Wales, and Northern Ireland), and several ongoing projects in Jersey, Channel Islands.

Drum Anaerobic Digestion Plant - A proposed anaerobic digestion plant and associated infrastructure, located in County Monaghan.

TVIA 15+ - Design optimisation, mitigation, and TVIA in relation to mixed use, commercial, and residential apartment schemes, with experience gained in Ireland and the UK (including projects in Scotland, England, Wales, and Northern Ireland).

Aquaculture - Design optimisation and SLVIA in relation to proposed offshore seaweed farm installations off the coastlines of County Galway, and County Clare in Galway Bay. Detailed consideration was given to the layout and arrangement of the proposed system of buoys, and the impact of navigational warning lighting.

Feddinch Golf Course – Mark produced the LVIA for a new golf course development on the outskirts of St Andrews being developed by Internationally renowned Alvarez & Marsal Golf. Consideration was given to the site's relationship with the historic town and coastal context.

Claremont SHD, Howth, Dublin. Mark produced the LVIA and landscape design for this mixed-use strategic housing development application at the entrance to the fishing village of Howth. The LVIA was critical to securing planning approval given the ambition for the site, its gateway location and the sensitivity of the site's landscape and visual context. The application achieved An Bord Pleanála consent in 2020.

Apollo/College House, Dublin. Mark produced the TVIA for the re-development of this high-profile central Dublin site. George's Quay is a complex urban landscape and collaborative design process was key to the integration of new development. An Bord Pleanála have approved all applications to date including a 21 storey residential tower.

Midfearn Distillery, Ardgay, Scotland. Mark produced the LVIA and landscape design for a new distillery near Ardgay on the shores of Dornoch Firth. Working closely with the wider project team, the design and integration of the distillery into the landscape was guided by a landscape led approach, with particular attention given to the designated qualities of the Dornoch Firth National Scenic Area. Careful consideration was required to how the scenic qualities were experienced, with sensitive mitigation embedded into the design and siting of the development. The application achieved consent in 2022.

Elixir Distillery, Islay, Scotland. Mark produced LVIA and landscape design for a new distillery near Port Ellen, Islay. Integrating a contemporary distillery into this conspicuous coastal landscape required a strong landscape led approach and sensitive mitigation embedded into the design and siting of the development, and landform features surrounding the site. The application achieved consent in 2021.

Ardnahoe Distillery and warehousing, Islay, Scotland.

Mark produced the LVIA and landscape design for new distillery warehousing on Islay's north east coastline. Careful consideration was given to the designated wild qualities of Jura (National Scenic Area) and the complex character of the host landscape. A landscape led approach drove the careful siting and layout of new built form, and the integration of characteristic landform features and planting to reduce effects. The application achieved consent in 2021.

Forth Bridge Experience, S. Queensferry, Scotland. Mark undertook LVIA work for the development of a new visitor experience that includes a visitor hub and walkway over the iconic Forth Bridge World Heritage Site. The assessment needed to carefully consider the impact of infrastructure and activity on the bridge and the architectural approach employed in the context of one of Scotland's national symbols. The application achieved consent in 2020.

Natural England Seascape Characterisation - Mark was central to the production of a pilot Seascape Character Assessment for two areas of territorial waters along the eastern and southern coastline as defined by the Marine Management Organisation (MMO). The project required the development of a methodology based upon emerging guidance documentation as well as some regional level seascape typology studies. Extensive field surveys (both from the land and sea), as well as the interpretation of a variety of information sources, technical inputs and GIS data resulted in the identification and description of a number of Seascape Character Areas which are at a comparable scale with the National Character Areas covering terrestrial Britain. This was published by Natural England on 11th October 2012.

Reservoirs in the Landscape: Design Principles. Mark was central to the production of a non-statutory guidance document for Natural England, that sought to complement existing guidance in ensuring that new large scale reservoir proposals, or the reconfiguration of existing ones, integrate with their landscape setting, and promote biodiversity, geodiversity, heritage and public access to nature as far as possible through good design. This was published by Natural England on 11th December 2025.

South Docks, Cork. To inform the City Docks Local Area Plan, Mark contributed landscape & visual assessment and landscape design skills to a placemaking and drainage strategy for this nationally significant 116ha

regeneration area at Cork's docklands. The strategy sought to holistically integrate flood defence and surface water drainage solutions within an open space framework that sensitively marshalls a change in character between the city and its suburbs, promotes active forms of travel, accommodates current and future public transport infrastructure, and provides a framework for a vibrant, innovative, mixed-use, sustainable, socially inclusive, urban quarter.

Guidance and characterisation studies - Mark contributed extensively to the preparation of interim integrated objectives for National Character Areas, and character profiles for all major urban settlements in the North West region, as part of Natural England's NW Regional Landscape Character Framework

The Curragh Plains, Kildare, Ireland. Mark was heavily involved in the production of a Conservation Management Plan for the Curragh Plains, a landscape of immense significance. Arriving at policies and actions required extensive public and stakeholder engagement, with a complex and contrasting range of stakeholders including the Irish Defence Forces, the Horse Racing Community, and sheep graziers with legal rights to graze the Curragh. Mark also contributed heavily to a Branding, Interpretation and Wayfinding Plan that fed from the management plan, and was complex in nature given the inherent sensitivities and qualities of the landscape.



Paul Nolan

Senior Project Scientist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Profile

Paul holds a Bachelor of Science in Environmental Science from the University of Limerick. He has 9 years of experience in the field of Environmental Science/Management. Paul has considerable knowledge with vast experience in the areas of energy, water, waste management and environmental compliance and monitoring. He is currently a Senior Principal Scientist with Fehily Timoney and Company.

Key Skills

Paul's key skills include:

- Report Writing
- Data Analysis
- Project Management
- Process Improvement
- Water Stewardship
- Lean Business Management

Previous Experience Essentials for this Project

- **Review of EIARs for Mixed-Use Developments, 2025 – Present**
Paul has been responsible for conducting comprehensive reviews of Environmental Impact Assessment Reports (EIARs) for multiple proposed mixed-use developments, assessing each chapter in detail to ensure compliance with regulatory standards and best practice guidelines.
- **Waste Management Plans, 2023 - Present**
Responsible for leading planning compliance reporting, including the preparation of Operational Waste Management Plans (OWMPs), Construction Environmental Management Plans (CEMPs), and Resource Waste Management Plans (RWMPs) for large-scale residential and commercial developments. Collaborate regularly with the Ecology and Environmental Impact Assessment (EIA) teams to coordinate inputs for planning submissions and technical reports. Respond to planning conditions and Requests for Further Information (RFIs) to support clients in achieving timely planning approvals. Engage with clients through regular calls, emails, and progress updates to ensure clarity, alignment, and efficient project delivery.
- **Waste Management and Compliance, Key Industry Waste Companies, 2022 - 2025**
Paul was responsible for providing specialist expertise in waste management and regulatory compliance for multiple waste facilities, including Civic Amenity Sites, Hazardous Waste Facilities, and a Waste Composting Facility. Acted as the primary point of contact for the composting facility, managing all regulatory, operational, and compliance-related queries. Conducted site visits and internal audits to ensure adherence to EPA licence conditions and waste management regulations. Managed compliance interactions with the EPA, including requests for approval, technical correspondence, and Eden Portal submissions. Prepared and completed Annual Environmental Reports (AERs) and Environmental Performance Reporting (EPR) for multiple facilities. Contributed to EPA licence applications, licence technical amendments, waste facility permit applications, and waste collection permit applications.
- **IE Licence Application – Stericycle Healthcare Waste Management Facility (Cork), 2026 – Present**

Key Information

Qualifications

Bachelor of Science in Environmental Science, University of Limerick
2014

Employment History

2025 – Present

Fehily Timoney & Company
Senior Project Scientist

2022 – 2025

Enviroguide Consulting / DNV
Environmental & Waste Management
Specialist

2016 – 2022

ABP Slaney
Environmental & Sustainability
Manager

2015 – 2016

ABP Slaney
Lab Technician

2014 – 2015

ABP Slaney
General Operative

2013 – 2014

Carlow County Council
Water Services Department
Technician



Paul Nolan

Senior Project Scientist



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Paul has been involved in the preparation and coordination of an Industrial Emissions (IE) Licence application for a Stericycle healthcare risk waste management facility in Cork. Responsibilities include contributing to the development of technical documentation, coordinating inputs across environmental disciplines, and ensuring alignment with EPA licensing requirements and guidance. Supported the preparation and submission of key application components, including the online EPA portal application, environmental reports, Environmental Liabilities Risk Assessment (ELRA) and Closure Plan, waste management procedures, and Environmental Management Systems documentation. Liaised with internal teams and stakeholders to ensure the timely and accurate submission of all application materials.

- **Project Manager – Consultancy Services for IE-Licensed Site (Ballyogan Landfill), 2025 - Present**

Paul is responsible for managing consultancy services for the IE-licensed Ballyogan Landfill site, overseeing multiple ongoing projects. Preparing and coordinating the submission of Specified Engineering Works (SEWs) and technical amendments to the facility licence as required. Conduct regular site visits to monitor progress, assess compliance, and support operational decision-making. Liaise with the EPA, the local council, and other regulatory bodies to ensure ongoing compliance with licence conditions and project requirements. Organise and lead regular meetings with the council and key stakeholders to coordinate project activities and address emerging issues.

- **Repak Auditor and Trainer, 2022 -2025**

Authorised auditor and trainer for Repak under the EU's Extended Producer Responsibility (EPR) Scheme for packaging and packaging waste. Paul delivered training to producers preparing to join Repak, via Microsoft Teams and on-site visits, covering obligations under the EU EPR Scheme for packaging and packaging waste. Packaging assessments were carried out on site where required. Conducted detailed packaging assessments on-site to evaluate the types and volumes of packaging placed on the Irish market. Performed remote and on-site compliance audits to verify the accuracy of packaging tonnage reported by Repak members during each reporting period. Assessed member compliance with statutory reporting requirements and provided guidance to support accurate and transparent submissions.

- **Vehicle Refinishing Inspector, 2022 – 2025**

Paul was authorised as an approved assessor for the EPA under the EU regulations for vehicle refinishing products and activities. Paul carried out numerous onsite inspections at vehicle garages to ensure compliance with the emissions of volatile organic compounds (VOC's). Inspections were carried out at garages to renew their Certificate of Compliance from their local authority or at garages for first time inspections to obtain a cert of compliance.

- **EPA's ODS and F-Gas Inspection Campaign, 2023**

Served as Project Manager for the EPA's 2023 Ozone-Depleting Substances (ODS) and F-Gas inspection campaign, focusing on regulatory compliance across multiple sectors. Oversaw and implemented a programme of 52 inspections on businesses operating equipment containing F-Gas, including end users (e.g., hospitals, supermarkets, hotels), and contractors involved in installation, servicing, maintenance, and decommissioning, as well as garages servicing vehicle air-conditioning systems. Developed and managed a master schedule of contractors and businesses to contact and inspect in the Galway and Dublin regions. Acted as the lead inspector for all audits, conducting inspections in accordance with EPA guidelines and completing the required compliance record forms. Examined handling and service records, personnel training records, and equipment in use at each site to assess compliance with ODS and F-Gas regulations. Recorded and reported all non-compliances to the EPA and communicated regulatory obligations to businesses during audit closing meetings.

- **ISO Management Systems, ABP Slaney, 2016 - 2022**

Paul was responsible for the implementation and upkeep of the ISO 14001 Environmental Management System (EMS) and the ISO 50001 Energy Management System on site. This involved the management of Standard Operating Procedures and Record Forms covering all areas of the site, environmental aspects and impacts, objectives and targets, competence, training and awareness, communication of the EMS internally and externally, emergency response and management reviews.

- **EPA IE Licence Management, ABP, 2016 - 2022**

Paul was responsible for ensuring environmental compliance with the sites Industrial Emissions (IE) Licence. This involved day-to-day management and control of the Licence, annual environmental reporting, compliance with Emission limits values (ELV's) for wastewater, surface water, air and noise, handling of complaints, dealing with non-conformances and putting in place corrective and preventative actions. Paul was the site representative for all EPA audits and site visits along with control of the Eden Portal.

- **Origin Green Programme, ABP Slaney, 2016 - 2022**

Paul was responsible for managing the Origin Green Sustainability Programme at the site by setting and achieving measurable sustainability targets across areas such as raw material sourcing, manufacturing processes and social sustainability. The work



Paul Nolan

Senior Project Scientist



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involved in this project included monitoring and reporting on progress against the objectives and key performance indicators (KPI's) set out. Engagement with key stakeholders to help achieve the targets. Report writing on the annual sustainability plan for submission and approval. Paul was also responsible for developing a new plan during this period, setting out a new five-year sustainability plan with targets set from a baseline year. The site achieved Origin Green Gold Membership for three consecutive years from 2020 – 2022 for demonstrating the highest standards of environmental performance across all areas of the business.



Pragadeshwari Raja

Senior Project Engineer



DESIGNING AND DELIVERING
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Profile

Pragadeshwari is a Senior Project Engineer at Fehily Timoney and Company with 7 years of professional experience in civil and drainage engineering. She holds a Bachelor's Degree in Civil Engineering from BMS Institute of Technology and a Diploma in Civil Engineering from Sri Jayachamarajendra Government Polytechnic. She is committed to continuous professional development and delivering sustainable, high-quality engineering solutions.

She has extensive experience in the design and delivery of drainage, water, and wastewater infrastructure projects. Her expertise includes highway drainage design, stormwater management, hydraulic modelling, water and wastewater network design, and the preparation of detailed engineering drawings, specifications, calculations, and technical reports. She has contributed to projects across all stages of development, from feasibility and concept design through to detailed design and construction support.

Pragadeshwari has strong technical, project management, and organisational skills, enabling the successful delivery of projects within programme and budget constraints. She works effectively within multidisciplinary teams, collaborating with engineers, environmental specialists, and other stakeholders to develop practical and efficient engineering solutions. She is committed to maintaining high safety standards, ensuring technical excellence, and delivering quality outcomes for clients and communities.

Key Skills

- Design of infrastructure including greenways, active travel schemes, car parks and roads.
- Project management and project coordination.
- Detailed design drawings using AutoCAD.
- Technical reports including Feasibility Studies, Option Selection Reports
- Public consultation and stakeholder engagement support.
- Sustainable Urban Drainage Systems (SuDS).
- Mapping constraints and spatial analysis using ArcGIS.
- Preparation of specifications and Bills of Quantities.
- Technical report writing and documentation.
- Multidisciplinary team coordination.

Previous Experience Essentials for this Project

• Davis Rd & Anglesea St Active Travel Project, Tipperary County Council

Provided drainage design input for the project, including assessment of existing surface water drainage infrastructure along the R707 corridor. Responsibilities included development of drainage strategies, hydraulic calculations, SuDS integration, and design of surface water management solutions to support upgraded cycle tracks, footpaths, junction works, and crossing facilities. Supported the preparation of drainage layouts, drawings, and technical documentation in line with project requirements.

• N22/R618 Baile Bhúirne to Macroom Active Travel Project, Cork County Council

Undertook drainage design for the 22 km active travel corridor, including review and assessment of existing drainage systems and identification of capacity constraints. Responsibilities included development of stormwater management strategies,

Key Information

Qualifications

Bachelor of Engineering (B.E.) in Civil Engineering, BMS Institute of Technology, 2019

Diploma in Civil Engineering, Sri Jayachamarajendra Government Polytechnic, 2016

Professional Memberships

GMICE

Employment History

2024 Feb– Present

Fehily Timoney & Company
Senior Project Engineer

2022 Jan – 2024 Jan

WSP India Pvt Ltd
Assistant Engineer

2019 Aug – 2021 Dec

WS Atkins India Pvt Ltd
Graduate Engineer

2019

Legacy global projects pvt ltd
Intern



Pragadeshwari Raja

Senior Project Engineer



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

hydraulic analysis, SuDS proposals, and design of surface water drainage infrastructure to support proposed pedestrian and cyclist facilities, junction improvements, and traffic calming measures. Contributed to drainage drawings and technical reporting to support scheme development.

- **South Kerry Greenway Cahersiveen to Reenard, Kerry County Council**

Responsible for the design and assessment of surface water drainage systems for the proposed greenway. Duties included drainage strategy development, hydraulic calculations, integration of Sustainable Urban Drainage Systems (SuDS), and coordination with the multidisciplinary design team to address environmental and coastal constraints.

- **Kerry Pike Pedestrian Improvement Scheme, Cork City Council**

Undertook highway drainage design for the pedestrian improvement scheme, including surface water collection systems, drainage network design, and SuDS assessments. Responsibilities included preparation of drainage drawings, technical reports, utility coordination, and support during the detailed design stage.

- **Knockpogue Avenue / Knockfree Avenue Active Travel Improvement Works**

Provided drainage design services for the active travel scheme, including assessment of existing drainage infrastructure, design of new surface water drainage systems, hydraulic calculations, and preparation of detailed drainage drawings and specifications to support project delivery.

- **Cooney's Lane Pedestrian Improvement Scheme, Cork City Council**

Responsible for the design and coordination of drainage infrastructure throughout the project lifecycle, including utility clash identification and resolution. Duties included development of drainage layouts, preparation of technical documentation, incorporation of SuDS measures, and support to the project team during planning and detailed design stages.

- **R688 Cashel Road Active Travel Upgrade, Clonmel, Tipperary County Council**

Delivered drainage design solutions for the scheme, including stormwater management proposals, drainage network assessments, hydraulic calculations, and preparation of drainage reports and rain garden design. Contributed to option selection and detailed design in accordance with relevant standards and guidance.

- **South East Greenway, Wexford County Council**

Responsible for the design and assessment of surface water drainage systems for the proposed greenway, including drainage of Tunnel. Duties included drainage strategy development, hydraulic calculations, integration of Sustainable Urban Drainage Systems and coordination with the multidisciplinary design team to address environmental and coastal constraints.

- **P26-023 – L3621 Glenconnor Road, Clonmel, Tipperary County Council**

Responsible for the design of Sustainable Urban Drainage Systems (SuDS) including swales and measures to reduce existing flood risk in the area. Duties included development of drainage strategies, hydraulic analysis, design of surface water drainage networks, and preparation of detailed engineering drawings to support flood mitigation measures.

- **P25-344 – Tonbaun Farm Pass Emergency Works**

Involved in the design and assessment of soakaway systems for drainage works. Responsibilities included hydraulic analysis, infiltration assessment, sizing of soakaway trenches, and production of detailed construction drawings to support effective surface water disposal.

- **P24-188 – Powerstown Bioenergy**

Prepared a site-specific Flood Risk Assessment (FRA) report and carried out hydraulic capacity checks of the existing drainage network to assess its suitability for proposed development. Supported the development of drainage strategies to ensure adequate stormwater management and compliance with relevant design standards.



Pragadeshwari Raja

Senior Project Engineer



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- **P24-112 – Cloonkett Wind Farm**

Responsible for drainage design associated with access tracks and site infrastructure, including landfill drainage systems and sizing of settlement ponds. Duties also included assessment of watercourse interactions and design of diversions where required to manage surface water flow across the site.

- **Oxigen Derryankin – Proposed Malting Plant Development**

Prepared a site-specific Flood Risk Assessment (FRA) report for the proposed industrial development. Included assessment of flood risk, review of existing drainage conditions, and identification of mitigation measures to ensure safe and sustainable site development.

- **IDA Limerick Development**

Undertook drainage design for an industrial development site, including development of surface water management strategies and integration with existing drainage networks and watercourses. Responsibilities included utility clash detection, coordination of drainage layouts, and preparation of detailed design drawings.

- **Drehid Wind Farm SID**

Responsible for the preparation of preliminary hydraulic design reports for proposed bridge and culvert structures. Duties included catchment analysis, hydrological calculations, and sizing of culverts and bridges using industry-standard software (e.g., CulvertMaster), ensuring adequate conveyance of surface water and flood flows.



Gavan Wallace

GIS Analyst



DESIGNING AND DELIVERING
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Profile

Gavan holds a Bachelor of Science: Social Sciences Joint Major and Master of Science: Geospatial Data Analysis

He is a Graduate GIS Analyst with Fehily Timoney. Gavan has great communication skills and extensive experience with working and collaborating as part of a team.

Key Skills

Gavan has knowledge in:

- ArcGIS Desktop (Pro)
- ArcGIS Online Suite (Dashboards, FieldMaps, ExperienceBuilder)
- Automation: Python Scripting & ModelBuilder (ArcGIS)
- QGIS
- Database Compiling and Management
- PRAI Compliant Mapping
- Project Management

Previous Experience Essentials for this Project

• Powerstown Bioenergy, 2026

Primary responsibilities on this project focused on the production of report figures, particularly for the Environmental Impact Assessment Report (EIAR) across multiple chapters. In addition, I supported wider team members by delivering geospatial outputs to inform and enhance project deliverables.

I was also involved in applying network analysis techniques to estimate feedstock routes from origin to the project site. This included generating quantitative geospatial data to support decision-making by the wider project team.

• Shancloon Wind Farm EIS, 2025

Production of figures across all chapters of the Shancloon EIAR process, compiling data from various sources. Examples include geological and hydrological sensitivities, noise mapping, habitat mapping, haul & turbine delivery routes and site infrastructure. Other tasks included CAD conversions and Online WebApp management.

Key Information

Qualifications

Master of Science: Geospatial Data Analysis, University College Dublin, 2024

Bachelor of Science: Social Sciences Joint Major, University College Dublin, 2023

Employment History

2024 – Present

Fehily Timoney & Company
GIS Analyst

2023 – 2024

Murphy Geospatial Dublin
Digital Engineering Intern



Gavan Wallace

GIS Analyst



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A SUSTAINABLE FUTURE

- **Derryfadda Wind Farm, 2025**

Coordinated and produced the substation developable area for one of the current projects design iterations. This involved the consideration of various constraints around the site using GIS analysis.

- **Littleton Wind Farm EIAR, Planning and Ecology, 2026**

Undertaking various analysis such as constraints analysis, facilitation of digitised ecology surveys. Facilitating the production of all GIS figures across EIAR chapters as well as bespoke figures at the request of planners, ecologists and clients. Also responsible for the management of geospatial data using AGOL platforms.

- **Cappakeel Solar Farm, 2025**

Production of figures for CEMP, NIS, PER, and EclA reports relating to the Solar Farm planning application, also assisting with grid and substation planning obligations. Other tasks included CAD conversions and Online WebApp management. Further planning and constraints analysis and figure production for subsequent grid route/substation SID application.

- **Carker Mountain Energy Development, 2025**

Consists of a combined Wind, Solar and BESS renewable energy development. Involves to date, the production of constraints analysis and the creation/maintenance of AGOL data sharing platform.

- **Drehid Cable Route EIAR and Ecology, 2025**

Production of maps for the EIAR and CEMP and ecological reports, which span across topics such as geology, hydrology, ecology, and population/human health.