

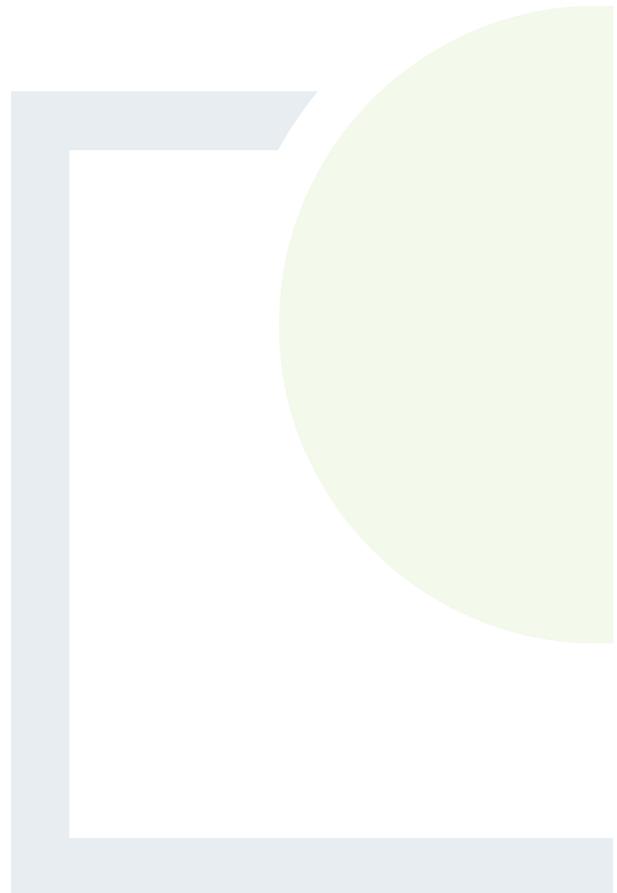


**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING**

APPENDIX 1.1

Curricula Vitae





Trevor Byrne

Senior Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Trevor works as a Senior Engineer for Fehily Timoney and Company. Trevor holds a Master's degree in Sustainable Energy Systems from the University of Edinburgh and an honours degree in Civil Engineering following his studies at Edinburgh Napier University and Cork Institute of Technology. Trevor is part of the Energy and Environment division at FT and is a chartered member of Engineers Ireland. His primary area of expertise is in the planning, design and construction of renewable energy projects.

Trevor gained much of his experience in wind farm development working on a large number of projects in the UK renewable energy industry over the past number of years and has helped to deliver a variety of projects employing different technologies including onshore wind, hydro and solar PV. He also has experience working in the Irish construction industry and has worked in the US on a variety of civil/environmental projects.

Trevor has considerable environmental engineering and environmental impact assessment experience and is a proven project manager. He also has significant on site experience relating to managing the construction of renewable energy developments.

Key Skills

Trevor has experience in the following:

- EIAR, EIA
- Project Management
- Statutory and Public Consultation
- Oral Hearing
- Renewable Energy Development Design and Construction
- Site Supervision
- Detailed Design
- Strategic Infrastructure Developments

Previous Experience Essentials For This Project

- **Teevurcher Windfarm, 2018**
Teevurcher is a development in Co. Meath. FT are acting as designer to the Design and Build contractor, Roadbridge, for the construction of all onsite infrastructure associated with the development. Trevor successfully project managed all aspects of the detailed design for the project, liaising with the main contractor's management and coordinating the design team including the development's drainage system.
- **Moanvane Windfarm, 2017**
Moanvane is a development in Co. Offaly. FT acted as the planning consultant for the client and project supervisor for the design stage of the project. Trevor produced the outline construction environmental plan for the site as part of the environmental impact assessment for the project as well as producing the traffic and transportation section of the environmental impact assessment including a traffic impact assessment.

Key Information

Qualifications

MSc. Sustainable Energy Systems
University of Edinburgh
2008-2009

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

BEng. (Ord), Civil Engineer
Cork Institute of Technology
2002-2005

Professional Memberships

Chartered Engineer

Member of Engineers Ireland

Employment History

2016- Present

Fehily Timoney & Company
Senior Engineer

2012 – 2016

Greenspan, Edinburgh, UK
Project Manager

2010 – 2012

Cardinal Resources LLC,
Pittsburgh, PA, USA
Project Engineer

2005 – 2007

O'Shea Leader Consulting Engineers,
Cork
Graduate Engineer



Trevor Byrne

Senior Engineer



CONSULTANTS IN ENGINEERING,
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& PLANNING

- **Knockacummer Windfarm Grid Connection, 2017**

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

- **Gortfinbar Wind Farm, 2016**

Gortfinbar is a 5 no. wind turbine development in Co. Tyrone. FT are acting as designer to the Design and Build contractor, DMKL, for the construction of onsite roads, hardstandings, substation and all other infrastructure associated with the wind farm development. Trevor successfully project managed all aspects of the detailed design for the project, liaising with the main contractor's management and coordinating the design team.

- **Sliabh Bawn Wind Farm, 2016**

Sliabh Bawn is a 20 turbine project in Co. Roscommon. FT are acting as designer to the Design and Build contractor, Alexander for the construction of a series of walking trails, riding tracks and recreational areas throughout the wind farm. Trevor is managing the design contract on behalf of FT for this project.

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

Cairnmore is a 4MW solar PV park in North Aberdeenshire. The site is located on a farm with a pre-existing wind farm with which the SPV scheme shares a grind connection. Trevor acted as project manager and coordinated the design, construction and procurement of the project on behalf of the client. The scheme was commissioned in early 2016 and is now generating successfully in tandem with the existing wind farm. This was the largest combined technology scale project of its type in Scotland at the time of commissioning. The main challenges associated with this project related to ensuring the exported electricity from the combined wind/solar scheme was able to meet the power quality requirements of the network. This was solved through a cooperative design process between the private electrical design team and the network operator.

- **Millvale Solar PV, 2017**

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



Jim Hughes

Planner



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

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

Jim is a Qualified Town Planner with over 16 years post qualification planning experience in both the private and public sector. He has extensive experience in providing strategic level advice to clients and negotiating with and presenting to local authorities. Jim has experience in the management, coordination and preparation of planning applications, masterplans and Environmental Impact Assessments for mixed use schemes and large scale infrastructure projects throughout Ireland. He also has experience in the preparation of retail impact studies, planning appeals, Section 5 declaration applications and zoning submissions.

Jim has represented clients on planning enforcement matters and as expert witness at oral hearings. He is also experienced in peer review and preparation of independent planning assessments and appraisals on behalf of clients. Jim has also experience in delivering seminars to the Financial Sector on planning matters on the importance of protecting the planning asset.

Jim has acted as planning lead on a number of high profile infrastructure projects. Including the South Docklands Road infrastructure upgrade works including the Eastern Gateway Bridge, Dunkettle Interchange Road Project where FT are engaged by SISK as contractors designer. He is also planning lead on the N4 Road project where FT are engaged by Roadbridge as contractors designer.

Key Skills

- Project Management
- Strategic Planning
- Planning Process
- SID
- CPO
- Oral Hearing
- Planning Appeals
- Planning Applications
- EIA

Previous Experience Essentials For This Project

Current (2018 – Present)

Lead Planning Consultant on the Dunkettle Interchange Road Project

Responsible for planning input into the Detailed Design including planning compliance. Jim also lead the Design Team in pre-application consultations with An Bord Pleanála to discuss potential amendments to the scheme.

Lead Planning Consultant on the N4 Realignment Collooney to Castlebaldwin Road

Responsible for planning input into the Detailed Design including planning compliance and compliance with the EIA Directive and Habitats Directive.

www.fehilytimoney.ie

Key Information

Qualifications

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

MSc. Town Planning, Queens University Belfast (2004)

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

Professional Memberships

Member of the Irish Planning Institute

Employment History

2020 – Present

Fehily Timoney & Company
Director

2017 – 2020

Fehily Timoney & Company
Associate Director

2015 – 2018

Fehily Timoney & Company
Senior Planner

2007 – 2015

Cunnane Stratton Reynolds (CSR)
Senior Planner

2004 – 2007

Cork County Council
Area Planner



Jim Hughes

Planner



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Lead Planning Consultant for extension Waterford Airport Airfield Runway

Jim was project director and planning lead on the EIAR for the Waterford Airport Runway extension. The project required the preparation of an EIAR and AA for the project and as the facility was not subject to EIA previously the EIAR had to consider the overall facility and its environmental impacts.

Lead Planning Consultant for Apron and Taxi Way extension at Dublin Airport

Jim was engaged by DAA to provide planning consultancy services and planning strategy for the extension of Apron and taxi ways. Jim and his team prepared a planning strategy and a supporting EIA Screening Report.

Lead Planning Consultant on the redevelopment of the Lee Road Water Treatment Works, Cork City.

Services included preparation of planning and environmental report and the coordination of the planning submission and further information.

Planning Consultant for Shannon Commercial Properties, a large Mid-West Development company.

Jim is regularly commissioned by SCP to provide planning advice on their land and commercial portfolio in the mid-west region. Jim leads the preparation of Planning Appraisals, Development Plan submissions and planning strategy report with an objective of protecting and enhancing the planning asset.

Lead Planning Consultant for the development of 800 residential units in Kilbarry, Co. Waterford.

Services included preparation of EIAR for the overall masterplan development and submission of individual planning applications connecting to the future LIHAF road.

Lead Planning Consultant on the Coom Green Energy Park Strategic Infrastructure Development Project.

Project Director for the EIAR project which consists of a 27 no. turbine wind farm in North Cork. The project includes the preliminary design, public consultation and preparation and submission of application for approval to ABP.

Lead Planning Consultant on the Rosspile Solar Energy Park

Responsible for planning input into the project including a SID application for the 110kv electricity infrastructure and grid route.

Lead Planning Consultant and project director for 12 solar farm planning application nationwide

Jim was project director for a number of planning applications nationwide. Activities include pre-planning consultations with the local authority. Public Consultation events and preparation of design and planning and environmental reports.

Lead Planning Consultant for the Moanvane Wind Farm and Cable Route

Jim was project manager and lead planning consultant for the preparation and design of Moanvane Wind Farm and cable route in Co. Offaly. The scope of works included and EIAR, Preliminary design of the wind farm and cable route including a recreation and amenity trail.

Lead Planning Consultant for Drehid Wind Farm and Cable Route

Jim was project Director and lead planning consultant for the preparation and design of Drehid Wind Farm and cable route in Co. Kildare. The scope of works included and EIAR, Preliminary design of the wind farm and cable route including a recreation and amenity trail.

Foreshore License Cork Harbor

Jim was engaged by Port of Cork to prepare a Foreshore License pre-application consultation for Site Investigations within Cork Harbor.

Marine Spatial Planning

Jim was engaged by the Port of Cork to prepare a written submission on the National Marine Planning Framework.



Jim Hughes

Planner



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
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2017

Lead Planning Consultant for Castletownmoore Wind Farm

Jim was lead planning consultant and project manager for this 21-turbine wind farm in Co. Kildare. Services included the preparation and submission of SID application. Pre-application consultations with ABP. Specialist planning advice into subsequent Judicial Review High Court case.

2016

Preparation and coordination of planning application for 50 no. dwelling units in Croom Co. Cork

Preparation of an integrated tourism masterplan for tourism site on the banks of the River Shannon Co. Clare. Preparation and submission of a masterplan for a tourism facility on the banks of the River Shannon in County Clare. The application included a number of short-term letting units, waste water treatment unit, tourism facilities and welfare facilities.

Preparation and submission of planning application for a recreation facility at the old Burlington Plan, Co. Clare.

Jim was retained by Zinc Properties to manage their property portfolio including developing masterplans for the redevelopment of their facilities.

2015

Planning Lead for Ballyvolane District Centre.

Services included preparation of an EIAR and the management and coordination of a design team for the An Bord Pleanála Oral Hearing.

2008 – 2014

SID Pre-Planning consultation with An Bord Pleanála for Local Authority Marina development in Cork.

Services include written submission to ABP for a determination on EIA and NIS requirements for the Marina Development.

Strategic Review of Dursey Island and Cable Car. .

In conjunction with AECOM and TDI, Jim prepared an overall economic and tourism development strategy for Dursey Island.

Bilberry Mixed Use Development Waterford.

Lead Planning Consultant and contribution to the EIS and planning submission for the regeneration of the south western docklands area of Waterford City. The scheme consisted of 11 no. development blocks ranging in height from one floor to thirty floors over basement level.

Old Ford Distribution Site Cork South Docklands.

Coordinated a multi-disciplined team of 5 Architects, preparation of EIS and planning submission for the largest planning scheme (Atlantic Quarter) ever received by Cork City Council. The scheme included 50,000 sq.m of office space, 500 residential units, hotel, event centre and retail.

Eastern Gateway Bridge and upgrade of Road infrastructure

Commissioned by Cork City Council to prepare an EIS and planning application for the redevelopment of the Cork South Docklands road infrastructure including the Eastern Gateway Bridge with Architects Wilkinson Eyre. The bridge connected the Cork South Docklands with the Lower Glanmire Road.



Eamon Hutton

Project Planner



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Eamon Hutton is a Project Planner with Fehily Timoney and Company and works as part of the Energy and Environment Team.

Eamon is a Chartered Town Planner with the Irish Planning Institute and holds a BSc in Spatial Planning and A MSc in City Planning and Regeneration which he received from the University of Glasgow. Eamon holds a Post-Graduate Diploma in Urban Design (University of Strathclyde).

Eamon has gained a wide range of experience with Fehily Timoney and Company, focusing on EIA, Wind, Solar and Residential Development.

Key Projects

- **Coom Green Energy Park, Co. Cork - (Ongoing)**
Contribution to EIAR including chapters: population and human health, alternatives, policy, consultation, introduction and interactions. Involved with public consultation including information nights, technical workshops and door to door consultation. 2018-2020
- **Croaghaun Wind Farm, Co. Carlow - (Ongoing)**
Contributed to EIAR including chapters: population and human health, alternatives, policy, consultation, introduction and interactions.
- **Dernacart Wind Farm, Co. Laois**
Contributed to EIAR including chapters: alternatives and interactions.
- **Drehid Wind Farm, Co. Kildare**
Contribution to EIAR and planning statement for wind farm development. Scoping & consultation, population & human health, alternatives, interactions and planning statement.
- **Derrysallagh Grid Connection Substitute Consent, Co Sligo, Leitrim, Roscommon**
Input and preparation of a remedial Environmental Impact Assessment Report for substitute consent for the grid connection of the Derrysallagh Wind Farm. Landscape and policy assessment, interactions and non-technical summary. Preparation of planning application notices and documents.
- **Waterford Airport Runway Extension, Co Waterford**
Contribution to EIAR for Waterford Airport runway extension 2018/2020. Introduction, description of the development, policy, scoping and consultation, traffic and transportation, landscape and visuals and interactions.
- **Kilbarry Residential and Solar Park Development, Co Waterford**
Contribution to EIAR for a residential development of 750 dwellings and an adjoining solar park. Introduction, description of development, policy, population, human health and material assets, EIA screening, alternatives, interactions and non-technical summary. Preparation of planning documents and statutory notices.
- **OPW - Flood Risk Assessment & Management Plans - Department of Public Procurement.** Review of Strategic Environmental Assessment and Appropriate Assessment documents for the national Catchment Flood Risk Assessment & Management Plans produced by the OPW. Content and procedural Review of all 36 plans and environmental assessments.
- **Rosspile Solar Farm, Co Wexford - Highfield Energy**
Preparation of planning application and statutory notices as well as input to the environmental report for a c. 150ha solar farm in Co. Wexford.
- **Middleton House Solar Farm, Co. Longford**
Preparation of planning report, application documents and statutory notices. Planning consent granted August 2018.

Key Information

Qualifications

MSc City Planning & Regeneration,
University of Glasgow, 2016

Post Graduate Diploma in Urban
Development
University of Strathclyde, 2016

BSc Spatial Planning
Dublin Institute of Technology, 2012

Professional Memberships

Corporate Member of the Irish
Planning Institute

Employment History

2017- Present

Fehily Timoney & Company
Graduate Planner
Project Planner

June – August 2019

Brookfield Renewable Ireland
Secondment
Project Planner



Donna O'Halloran

Project Scientist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Donna O'Halloran is a Project Environmental Scientist with four years' experience and works on energy, waste and urban planning related projects. Donna has a comprehensive knowledge of Air and Climate Change impact appraisal as part of Planning and Environment Reports, Environmental Impact Assessment Reports (EIAR) as well as a comprehensive knowledge of air and climate related international and national legislation and international agreements. Donna's key skills include traffic emission modelling (DMRB) and carbon calculation modelling. Donna also has experience and skills in ecology.

Donna holds two first class honors Masters of Science; one in Environmental Resource Management from University College Dublin, Ireland and the other in ecological assessment from National University of Ireland, University College Cork. Donna has a background in horticulture and landscape architecture.

Key Skills and Projects

- **Air and Climate Change Impact Appraisal for Wind Farm EIARs:**
Air and Climate Change Impact Appraisal as part of EIAR is assessed according to the NRA's (now TII) '*Assessment Criteria for the impact of dust emissions from construction activities with standard mitigation*'. Carbon balance of windfarms is calculated using the Scottish Windfarm Carbon Calculating tool. Traffic emissions are calculated where the DMRB (UK Highways Agency) threshold is met. And the UK Highways Agency's tool is used.
 - Slaghbooly Wind Farm, Co. Clare
 - Castletownmoor Wind Farm, Co. Meath
 - Ballymanus Wind Farm, Co. Wicklow
 - Ballymanus Wind Farm, Co. Wicklow
 - Raragh Wind Farm underground 20KV Grid Connection, Co. Cavan & Co. Meath
 - Windfarm in Co Cork, (preplanning stage)
- **Air and Climate Change Impact Appraisal for Non Wind Farm projects EIAR or Environmental Reports for planning.**
Traffic emission (DMRB) modelling has been carried out where thresholds have been met:
 - Proposed Waste Transfer and Processing Facility, Co Laois
 - Waste Soil Recovery Facility Kilquade, Co Wicklow
 - Millennium Park Landfill Extension, Co. Dublin
 - Overhead Line, midlands
 - Solar Farm Co. Wexford
 - Soil Backfill Facility, Co. Limerick
 - Battery Storage Facility, Co. Cork
 - Kilpaddoge Peaker Plant, Co. Kerry
 - Mishells Battery Storage, Co. Cork
 - Barnahely Battery Storage, Co Cork
 - Soils Recovery Facility and Eco Park, Co. Wicklow
 - Glenbeigh Greenway, Co. Kerry

Key Information

Qualifications

- MSc. Ecological Assessment (First Class Honors),
University College Cork, 2014
- MSc. (Agr.) Environmental Resource Management (First Class Hons)
University College Dublin, 2007
- BSc. (Agr.) Landscape Horticulture (Hons),
University College Dublin, 2006
- National Diploma in Horticulture,
National Botanic Gardens/ITB, Dublin
2004

Employment History

2015- Present

Fehily Timoney & Company
Project Ecologist

2011 – 2014

Heronswood Childcare Centre, Cork
Assistant Supervisor

2010 – 2011

Little Hands Childcare and Early Learning Centre, Cork
Assistant

2007 – 2008

Mitchell & Associates, Cork
Landscape Architect

2006

Brady Shipman Martin, Cork
Landscape Architect Assistant

2001 – 2004

National Botanic Gardens, Dublin
Student Gardener

2001 – 2003

Carewswood Garden Centre, Cork
Sales Assistant



Maureen Marsden

Project Acoustic Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Maureen is a Project Acoustic Engineer with Fehily Timoney & Company. She has an MEng in Acoustics and Vibration from Southampton University (Institute of Sound and Vibration Research). She is a member of the Institute of Acoustics and Engineers Ireland.

Maureen has over 20 years' experience across a broad range of acoustics & vibration. She has experience of noise and vibration measurement and assessment across a variety of sectors, including building, industrial and transportation projects.

Previous Experience Essentials For This Project

• Wind Farm Projects

Baseline Noise Measurements and analysis to determine prevailing background noise. Compliance measurements to determine if operating windfarms meet planning conditions. Sample projects include: Drehid Windfarm, Ballagh Windfarm, Coom Green Energy Park, Derncart windfarm, Croaghau Windfarm, Annagh Windfarm.

• Transportation Projects 1994 -2011

Predicted operational and construction noise for a range of railway transport projects including highspeed rail and tram projects. Measurement of noise levels post construction at Docklands Light Railway extension. Measured noise from operational Docklands Light Railway Extension post completion to determine compliance. Measured internal noise of Intercity trains for the purpose of developing a specification for new rolling stock. Measured in-site performance of acoustic barriers on motorways in Ireland. Predicted noise from upgrade to N19 upgrade project during the route selection stage. Managed baseline noise survey prior to construction of Dublin Port Tunnel. Projects include Sunderland Metro, UK, East Coast Main Line Upgrade (UK), Docklands Light Railway Extension. Dublin Port Tunnel, N19 upgrade route selection stage

• Building Acoustic Projects, 2002 - 2019

Provided acoustic advice on a range of building acoustic projects including residential, hotel, school, commercial and entertainment developments. Advised on sound insulation requirements for meeting building regulations. Advised on external building envelope design to meet suitable internal acoustic criteria. Predicted mechanical services noise to meet Local Authority noise criteria. Provided advice on meeting internal acoustic absorption requirements for a range of projects including community halls, churches, sports halls. Sample projects include Travelodge hotels, Chelsea Academy and Hammersmith Academy Schools.

• Industrial Noise Assessments, 2011 - 2019

Predicted noise from a range of industrial sites including LNG facilities, dairy facilities, water works and power plants to advise on noise control measures to meet appropriate environmental legislation. Also predicted in-plant noise contours for purposes of meeting Noise at Work requirements. Sample projects include Thames Water projects, Ballyragget Glanbia site, Jazan Refinery, Saudi Arabia. Gas Networks Ireland – multiple sites, Compressed gas installation Whitegate, Kilkenny Water Projects, Thames Water Noise Impact Assessment, Bloatlantis, Kerry.

Key Information

Qualifications

MEng. Acoustics and Vibration,
Southampton University (ISVR), 1994

Professional Memberships

Institute of Acoustics
Engineers Ireland

Employment History

2019- Present

Fehily Timoney and Company
Project Acoustic Engineer

2017- 2018

Resonate Acoustics
Acoustic Consultant

2015- 2017

Soundsorba
Sales Engineer

2011- 2015

Kellogg Brown and Root
Acoustic Engineer

2011- 2011

Mott Mac Donald
Acoustic Consultant

2008- 2010

Applied Acoustic Design
Acoustic Consultant

2007- 2008

Hoare Lea Acoustics
Acoustic Consultant

2002- 2006

Sound Research laboratories
Acoustic Consultant

2001- 2002

RPS

Acoustic Consultant
1998- 2001

Arup Acoustics
Acoustic Engineer

1996- 1998

Hotpoint Ltd
Acoustic Engineer

1993- 1996

British Rail Research
Sponsored Student/Research
Assistant



Maureen Marsden

Project Acoustic Engineer



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- **Compliance Monitoring at EPA Licenced Facilities**

Measured and analysed boundary noise measurements at licenced waste facilities to determine compliance with noise conditions of the site licence.

- **Solar Farm Projects**

Predicted operational noise from proposed external equipment to determine compliance with EPA criteria, and make recommendations for mitigation, if required. Predicted construction noise from works associated with solar farm construction.

Sample projects include: Moortown Solar farm, Dunmurray Golf Course Solar Farm, Kilcurly Solar Farm.

- **Channel Tunnel Rail Link Project, 1996 - 1998**

Member of noise and vibration team providing noise and vibration advice. Predicted operational noise using 3-D model, during the detailed design phase of the project, determining noise barrier and bund heights to assist the project in meeting noise commitments. Liaised with design team/landscape architects to develop design incorporating bunding/noise barriers. Modelled construction noise associated with railhead operation and railway construction for the purpose of obtaining Section 61 consent for construction works.



Dr. John Mahon

Senior Acoustic Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

John is a Senior Acoustic Engineer with Fehily Timoney & Company. He has a PhD in Acoustics and Vibration and a BA BAI (Hons) degree in Mechanical Engineering from Trinity College Dublin. He is a member of Engineers Ireland and the Institute of Acoustics.

John has over 13 years' experience in acoustics & vibration and has an extensive knowledge and experience in the measurement, prediction and analysis in the field of acoustics and vibration including excellent knowledge of acoustics and vibration legislation, policy and standards at EU and Irish levels. John's primary experience is in environmental noise including measurement and prediction of industrial noise, wind farm noise and road noise. He has completed noise modelling, measurements and assessments for road schemes, wind farm developments, construction projects and industrial sites. He also has significant experience in assessing the acoustic performance of noise barriers and he sits on the Irish and European Committees for Standardization CEN/TC226/WG 6 (Road traffic noise reducing devices).

Previous Experience Essentials For This Project

Key Projects

• Noise Impact Assessments for Wind Farms

Undertook noise impact assessments for wind farm projects including background noise assessments, noise predictions for construction and operational phases, compliance noise assessments and noise complaint investigations. He was also responsible for the preparation of environmental impact statements, technical reports and consultation with county councils.

Cordal Wind Farm
Ballagh Wind Farm
Mauricetown Wind Farm
Acres Wind Farm
Cordal Wind Farm

Meenwaun Wind Farm
Drehid Wind Farm
Castletownmoor Wind Farm
Sigatoka Wind Farm
Coolegrean Wind Farm

• Multiple Noise Impact Assessments

He was involved in the submission of multiple noise impact assessments ranging from waste transfer facilities, seaweed processing plants to breweries and visitor centres. These noise impact assessments required attended and unattended baseline measurements as well as carrying operational and construction noise predictions and assessing the predicted noise levels against appropriate noise limits. In some instance mitigation measures were required in order meet noise limits.

• Offline Motorway Service Areas

Noise lead on numerous planning applications for offline motorway service areas. Prepared noise and vibration impact assessments for construction and operational phases. Managed baseline monitoring, modelling of road traffic and industrial noise sources, preparation of technical reports and mitigation design.

• Aberdeen Western Peripheral Route (AWPR)

Responsible for evaluating the noise impact of the amendment of the road alignment between the specimen design and conceptual design for the Fastlink section of the Aberdeen Western Peripheral Route. This involved noise modelling in accordance with CRTN of the Fastlink section of the AWPR and incorporating mitigation measures to satisfy Transport Scotlands' design goals.

Key Information

Qualifications

PhD in Acoustics & Vibration,
Trinity College Dublin, 2008

Vibration Analysis – ISO 18436-2
Certification,
Mobius Institute Board of
Certification

BA BAI (Hons) Mechanical
Engineering,
Trinity College Dublin, 2004

Professional Memberships

Member of Engineers Ireland

Member of Institute of Acoustics.

Employment History

2016- Present

Fehily Timoney & Company
Senior Acoustic Consultant

2008 – 2015

Infrasonic (Acoustics & Vibration
Consultancy), Dublin
Position

2008 – 2013

Trinity College Dublin
Position

Employment History

Contributed to a Good Practice
Guidance for the Treatment of Noise
during the Planning of National Road
Schemes. Appendix B – Good Practice
Guide for Noise Barrier Design March
2014

Multiple Academic Journal and
Conference publications on Flow
Induced Noise & Vibration, Noise
Barriers and Noise Source
Identification Techniques



Dr. John Mahon

Senior Acoustic Engineer



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- **M8 M73 M74 Motorway Improvements**

Responsible for checking the noise performance parameters of environmental noise barriers to be used in the motorway improvement scheme.

- **Noise Assessments at 42 Above Ground Installations, Gas Networks Ireland**

Managed a team who carried out environmental and occupational noise monitoring at 42 above ground installation sites. All sites were assessed against environmental noise limits and occupational noise criteria.

- **Compliance Noise Surveys**

Undertook noise monitoring and licence compliance work for EPA licensed landfill and waste facilities, greenfield waste sites and other commercial facilities including data analysis and preparation of technical reports. Carried out reviews of technical reports prepared as part of EPA licensed facilities requirements.

- **Remedial EIS – Lacken Stone**

Noise lead in the preparation of a remedial EIS for Lacken Stone Quarry. He was responsible for the preparation of noise and vibration aspects of the environmental impact statement, including measurement of baseline noise levels, measurement of operational noise levels and noise predictions.



Rita Mansfield

Principal Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Rita is a Principal Ecologist and Project Manager at Fehily Timoney with sixteen years' previous experience as a technical lead within the environmental and planning services sector of Mott MacDonald. 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 with 16 years' experience 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.

Rita has provided technical advisory services through all stages of project delivery from feasibility assessment, impact assessment, CPO, design, expert witness, contract administration and construction. She has extensive experience in public / landowner consultation, liaison with private and public-sector clients, and with statutory and non-statutory bodies.

Rita is adept at Appropriate Assessment (Natura Impact Statements), Environmental Impact Assessment, Ecological Impact Assessment, environmental licensing, environmental management, environmental pollution control and mitigation design.

She has a full understanding of recent CJEU case law pertaining to Appropriate Assessment and EIAR and has practical experience of its application. Her reports have been subjected to legal review.

Key Information

Qualifications

2008

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

2003

BSc. (Hons) Applied Ecology,
University College Cork

Employment History

2020 – Present

Fehily Timoney and Company
Senior Environmental Specialist

2004 – 2020

Mott MacDonald Ireland Limited
Senior Environmental Specialist

Key skills

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

Previous Project experience

- **Cross Shannon Cable (EirGrid)**
Senior Scientist for the planning and foreshore applications for this 400 kV submarine cable connecting Moneypoint and Tarbert substations.
- **Celtic Interconnector (EirGrid)**
Principle Ecologist for this PCI Project. Statutory consents include foreshore application and Strategic Infrastructure Development application comprising ca. 575 km of submarine cable, underground HVDC / HVAC cable, and converter station.



Rita Mansfield

Principal Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **Peat Extraction, Bord na Móna, All-Ireland (Bord na Mona)** Project Lead for Appropriate Assessment (NIS) of peat extraction activities across ca. 75,000 hectares.
- **Kellystown Project (Eirgrid)**
Environmental assessment of options for the upgrade to the power supply to Intel's 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.
- **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 Kiltrush, County Clare to the Oldstreet substation in Portumna, Co. Galway. An extensive Natura Impact Statement was required for this project.
- **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.
- **Edenderry Power Plant, County Offaly**
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.



Ian Higgins

Principal Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Ian is a geotechnical engineer with over 20 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

Previous Experience Essentials for This Project

- **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.

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)

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

Principal Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **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**
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. On secondment to Soil Consultants Ltd. (UK)
- **Kingsland Road, London**
5 storey apartment block, site investigation and outline design for foundations and basements.
- **Dalston Lane, London**
Office and residential 4 storey apartment block, site investigation and outlined design for foundations and basements.
- **Westgate, Oxford**
Site investigation for shopping centre extension with 2 basement levels.

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.



Ian Higgins

Principal Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

- **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.
- **Cork Northern Relief Road**
Resident Engineer for the supervision of the Route Selection Site Investigation for Fehily Timoney Gifford.
- **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**
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**
Geotechnical Designer 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.



Ian Higgins

Principal Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
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- **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.

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.
- **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 alone route of major cutting. Assessment of rock strength and excavatability from field observations.



Tom Clayton

Senior Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Tom is a Chartered Engineer with a total of 10 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 experience designing deep foundations (including deep shafts) in the London area as well as the Middle East and various projects within the Irish market.

Tom also specialises in earthwork stabilisation and has worked in asset management and design consultancy roles for both highways and rail projects. More recently, Tom has worked closely with contractors on Design & Build projects throughout the UK and Ireland, including several wind farms and other infrastructure schemes. Tom currently leads the geotechnical and engineering geology team at Fehily Timoney and is responsible for the day-to-day running of the team and business development.

Key Skills

Tom's experience includes:

- Geotechnical Engineering
- Geotechnical Design
- Site Inspections

Previous Experience Essentials For This Project

- **Kilgallioch Wind Farm, Farrans, Jun 2017 - Present**
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, Jun 2017 - Present**
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, September 2016 – May 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, October 2016 – May 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.

Key Information

Qualifications

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

Chartered Engineer (CEng) 2015

Professional Memberships

Institution of Civil Engineers
(Member) 2015

Employment History

2016- Present

Fehily Timoney and Company
Principal Geotechnical Engineer

2008 – 2016

Aracadis UK (Formerly Hyder
Consulting)
Position

2004 – 2008

Hyder Consulting (Undergraduate)
Position



Tom Clayton

Senior Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Tom also provided construction stage support, formation inspections and verification of geotechnical testing for all of the above elements.

- **Meenwaun Wind Farm - Roadbridge, June 2016 – April 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., October 2016 – December 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, July 2016 – December 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, October 2016 – December 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



Declan Morrissey

Hydrogeologist/Senior Project Scientist
Field and Office Support Staff



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Declan holds a degree in Environmental Management and a master's degree in Environmental Sciences. He has nine years postgraduate experience and is a senior project scientist/hydrogeologist with Fehily Timoney. Declan specializes in hydrological and hydrogeological assessment, water supply, surface water and dewatering management, groundwater monitoring design and execution and environmental site assessments (baseline and contaminated land), Declan also has experience in project management, desk-based research, data analysis, modelling and input into environmental impact assessment reports. Declan recently joined Fehily Timoney from TOBIN Consulting Engineers. Prior to working with TOBIN, Declan worked in Alberta, Canada with Millennium EMS Solutions for seven years as an environmental scientist and project manager within the hydrogeology group.

Key Skills

- Hydrology and Hydrogeology
- Project Management
- Environmental Monitoring
- Data Analysis, and Interpretation
- Environmental Reporting
- Environmental Site Assessment/Site Investigation
- Conceptual Site Modelling
- Stakeholder Engagement

Previous Experience Essentials for This Project

• Groundwater and Surface Water Monitoring

Declan has completed an extensive number of groundwater and surface water monitoring programmes in Ireland and Canada, at landfills, quarries, pharmaceutical facilities, mines, oil and gas facilities, applying industry approved sampling and monitoring techniques. Field preparation consisted of reviewing monitoring programmes and previous monitoring reports for recommendations for alternations to monitoring programmes, discussions with project managers, clients and stakeholders via various mediums (phone, video-conferencing, email) for site information and access, communication with laboratories and equipment companies for monitoring and sampling containers and equipment. Monitoring consisted of collecting biological and chemical samples in approved containers using industry accepted methods, recording of field parameters including pH, temperature and dissolved oxygen. Post-monitoring, storage of samples during transport, delivery of samples to laboratory and submitting same with Chain of Custody with required holding times.

Field notes were uploaded to the project file and a summary of the works was submitted to the project manager and client, identifying any issues during the work, lessons learned and improvements for the following monitoring events. Once the laboratory results were received, the data was subject to the process of quality control and quality assurance by comparing the results of field blanks, trip blanks and duplicates. If anomalies were identified, the laboratory were contacted and if necessary, the sample was reanalysed for the parameter(s) of concern.

Key Information

Qualifications

Bachelor of Science, Technological University Dublin, 2009

Master of Science, Environmental Sciences, University of Dublin, Trinity College, 2010

ISA National Powerboat Certificate (Level 2) and International Certificate of Competency (ICC), 2011

Professional Memberships

Member, International Association of Hydrogeologists

Employment History

2020 – Present

Fehily Timoney and Company
Senior Project Scientist/Hydrogeologist

2019 – 2020

TOBIN Consulting Engineers
Project Manager/Hydrogeologist

2012 – 2019

Millennium EMS Solutions Ltd.,
Canada
Environmental Scientist/Project Manager

2011 - 2012

TMS Environment
Environmental Scientist



Declan Morrissey

Hydrogeologist/Senior Project Scientist
Field and Office Support Staff



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ENVIRONMENTAL SCIENCE
& PLANNING

Once the laboratory results were identified to be satisfactory, the data was inputted to the appropriate database for extraction in various formats for analysis, reporting and mapping.

- **Groundwater and Surface Water Monitoring Reporting**

Declan possess strong reporting skills and has completed numerous monitoring reports for landfills, quarries, pharmaceutical facilities, mines, oil and gas facilities, both in Ireland and Canada, illustrating the ability to identify the applicable policy, legislation, guidance and limits for the specific monitoring programme. Reporting typically followed the Introduction, Methodology, Results, Interpretation/Discussion, Recommendations and Conclusion format but were altered where necessary. Reporting also required the analysis of data against the relevant limits and identification of parameters in exceedance of same limits. Data was compared, where possible to the previous data to identify any potential trends. Mann-Kendal trend analysis was calculated on data to statistically identify upward or downward trends. Modelling software was utilised to determine the extent of contamination, if applicable to aid in identifying the source of contamination and receptors for future assessments. Reports also contained figures and maps to illustrate the results and aid in the visual interpretation of the results. Draft reports were reviewed by a senior reviewer and subsequently the client for comment. Once all the comments were satisfactorily addressed, the report was finalised and submitted to the appropriate regulator/stakeholder.

- **Groundwater and Surface Water Monitoring Programme**

Declan was responsible for the establishment of surface water and groundwater monitoring programmes at a number of Stream Assisted Gravity Drainage (SAGD) facilities prior to their construction in Northern Alberta, Canada. The work included a review of the proposed facility layout to identify sources and contaminants of potential concern, the completion of a site investigation to identify potential pathways and a site walkover to establish potential receptors. The draft programme was reviewed by the project manager and client, with final submission to the regulator for approval. Once the monitoring programme was approved, this was subject to the conditions of the specific operational licence.

- **Grassy Mountain Coal Project, 2017**

Declan provided hydrological, geological and hydrogeological technical input while undertaking the Environmental Impact Assessment of the Grassy Mountain Coal Project in southwestern Alberta, Canada.

- **Derryadd Wind Farm, 2019**

Declan acted as expert witness in relation to the oral hearing as part the Bord na Móna Derryadd Wind Farm in Co. Longford. The role involved review of existing hydrological and hydrogeological information, production of a précis of evidence and acting as expert witness for the arbitration hearing.

- **Wind Farm (Confidential), 2020**

Prior to joining Fehily Timoney, Declan was project manager and involved in the identification of constraints, scoping, site investigation, preparation of the Lands, Soils and Geology and Hydrology and Hydrogeology chapters for a proposed wind farm, which is planned for submission in 2020. Declan was involved in the completion of surface water sampling at the site and the write-up of the Surface Water Management Plan.



Alison Delahunty

Senior Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE & PLANNING

Profile

Alison holds a bachelor's degree in civil and environmental engineering, a master's degree in soil mechanics and a diploma of Imperial College London. She has 8 years postgraduate experience and is a senior geotechnical engineer with Fehily Timoney. Alison specializes in the execution of ground investigation contracts, processing and reporting of geotechnical information, geotechnical design in accordance with the Eurocodes, and geotechnical input into environmental impact assessment reports and environmental risk assessments. Alison's previous experience includes the project management of civil engineering contracts on brownfield substation sites for ESB, Ireland's main electrical supply utility. She also worked as a civil structural engineer with Malachy Walsh and Partners for three years. Here she gained experience in the structural design of steel, concrete, masonry and timber, temporary works design, and the civil design of watermain, foul and drainage networks.

Previous Experience Essentials for This Project

- Ballinagree Windfarm, Brookfield & Coillte, 2020 (ongoing)**
Alison is contributing to the production of the EIAR for this windfarm development. Her involvement to date has included risk assessing proposed turbine locations from a land, soils, geology and hydrogeology perspective. Shortly, she will be scoping the preliminary ground investigation to inform the EIAR and planning design.
- Counmagappul Windfarm, EMPower, 2020 (ongoing)**
Alison is contributing to the production of the EIAR for this windfarm development. Her involvement to date has included performing a site walkover to assess proposed turbine locations from a geotechnical risk perspective. This involved making geotechnical observations on site and measuring gradient, shear vane strength and peat depths.
- Dunkettle Interchange, 2020 (ongoing)**
Alison forms part of the geotechnical design team for this project. To date she has contributed to the development of ground improvement options and the design of geotechnical structures. She has used the finite element software PLAXIS to assess the suitability of control modulus columns to support embankments over soft ground with a focus on compliance with settlement tolerances at embankment-structure interfaces. She has also carried out a global stability check on a proposed reinforced earth wall over soft ground and assessed its interaction with an adjacent pile cap. Construction sequencing was key to this design.
- Great Southern Greenway, Limerick County Council, 2020 (ongoing)**
Alison is overseeing the ground investigation (GI) to inform the design and construction of circa 40km of improvement works to the greenway. This involves liaising with the main contractor and their sub-contracted ground investigation company, planning the ground investigation locations, visiting site to assess quality and progress, reviewing incoming data and scheduling laboratory tests.
- Donohill Landfill, Tipperary County Council, 2020**
Alison produced the slope stability assessment report for this closed landfill. This involved gathering information on the landfill construction, assessing monitored leachate levels and historical ground investigation data, creating a ground model for the site and performing slope stability checks using the geotechnical software Slope/W.

Key Information

Qualifications

MSc DIC Soil Mechanics (Distinction)
Imperial College London 2017

BE Civil and Environmental
Engineering (First Class Honours)
University College Cork, 2012

Professional Memberships

Chartered Member of the Institute of
Engineers Ireland (CEng MIEI)

Employment History

2020 – Present

Fehily Timoney & Company
Senior Geotechnical Engineer

2019 – 2020

ESB
Civil Structural Professional Engineer

2015 – 2019

RPS
Senior Project Geotechnical Engineer

2012 – 2015

Malachy Walsh & Partners
Civil Structural Engineer



Alison Delahunty

Senior Geotechnical Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE & PLANNING

- **Forth Ports Dundee East Redevelopment, RPS, 2020**

This project involved the development of a turbine yard and ro-ro facility at the Port of Dundee, Scotland. For this project, Alison assessed the implications of loading the intertidal silt deposits across the site by assessing the available geotechnical data, creating a ground model and performing a settlement analysis for a range of time periods after loading. She considered both primary and secondary consolidations and produced a technical report and geotechnical risk register outlining her findings and recommendations.

- **Limerick Tunnel Flood Bunds, CJV, 2020**

Alison contributed to the production of the Geotechnical Design Report for this project by running slope stability analyses for a selection of the proposed flood bunds. Alison carried out the analyses using the geotechnical software Talren.

- **MSD Brinny Oil Interceptor, MSD, 2020**

Alison was responsible for scoping, tendering and overseeing the GI for this project which involved the construction of 2no large underground petrol interceptors and ancillary works. Health and safety were of heightened importance for this project as the GI works were executed during the Covid-19 lockdown.

- **North Connect, Graham Construction, 2020**

Alison carried out a review of various slope geometry options for the proposed North Connect Converter Station excavation cut slopes. The slopes ranged from 2.5m to 19.5m high and the preliminary design, by others, included the use of soil nails and reinforced earth walls for stability. The aim of the review was to investigate other more cost-efficient designs while considering constructability and working within specified constraints. Alison used the slope analysis software Talren for the design.

- **Trabeg 110kV Substation Uprate, 2019-2020**

This project involved the electrical uprate of a major substation supplying electricity to Cork City. Alison managed the civil and structural elements of this project from conceptualization, through feasibility and on to capital approval stage. Alison worked closely with the client and design team to develop the scope and to ensure the best civil and structural solution was achieved to support the project requirements. Development considerations included site access through a residential area, flood risk from an adjacent stream, firewall protection measures to neighbouring facilities, re-use of existing structures versus construction of new modular units, existing underground services, and planning requirements/exemptions.

- **Donabate Ballalease Pumping Station, Irish Water, 2019**

Alison was first asked to advise on the adequacy of existing nearby GI for the design of this project. She determined that the information was inadequate and was subsequently responsible for scoping a suitable investigation. This involved the compilation of the GI Specification, Pricing Document and Drawings.

- **IW Southern Regional Lab, Irish Water, 2019**

Alison supervised the ground investigation works for this project. Alison submitted her site notes and observations to the design team on a weekly basis to provide an early insight on ground conditions effecting design elements such as foundations and attenuation.

- **Kealanine Landfill Remediation, Cork County Council, 2019**

Alison provided geotechnical support for the remediation design of a closed landfill at Kealanine, Co. Cork. This site presented several difficulties such as over-steep slopes, surface water features, rock outcrops, soft ground and access constraints. Following a review of the available ground investigation data, Alison carried out a feasibility study to determine the most suitable geotechnical solution for the site. The final solution included reprofiling of the landfill mound and the construction of a reinforced earth wall for slope stability.

- **Killaloe Bypass, Shannon Bridge Crossing and R494 Improvement, Clare County Council, 2019**

Alison was the lead geotechnical engineer for this project supported by two geotechnical colleagues and a draftsman. She was responsible for the GI informing the design of twenty structures including a 6-span bridge over the River Shannon, 3km of offline road construction including an 18m cut and 8m fills, and 3km of online road widening and improvement works. Planning the ground investigation for the scheme, located in an area of historical and environmental importance, involved correspondence and coordination with ecologists, archaeologists and statutory bodies such as Inland Fisheries Ireland and Waterways Ireland.

- **N73 Annakisha Road Realignment, Cork County Council, 2019**

Alison was responsible for scoping and procuring the detailed GI to advise the road realignment of this national route in an area of karst. Scoping this ground investigation involved an in-depth desk study, walkover survey and research into proven GI and geophysical surveys in karst. Possible karst features were identified by overlaying aerial imagery and historic mapping on LiDAR and further investigated during the site walkover.



Kristian Divjak

Civil Design Engineer



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Profile

Kristian is a Civil Design Engineer with Fehily Timoney and Company. He works as part of FT's Energy Team. After he graduated as the Best Student of his Generation, he continued his career in Hydroconsult Design Ltd. where he worked on various water management projects. He was responsible for hydraulic modelling. Kristian also worked on designing open channels, bridge culverts and river basin retentions.

Since joining FT, Kristian has worked on numerous Environmental Impact Assessment reports where his duty was to address impacts of development on hydrology and water quality and to implement mitigation measures. Kristian was responsible for drainage design and flood risk assessment.

Key Skills

- Civil Infrastructure
- Environmental Impact Assessment
- Flood Risk Assessment
- Open Channel and Pipeline Hydraulics
- Hydraulic Modelling

Previous Experience

Fehily Timoney and Company, Cork – 2019 - Present

- **Dromalivaun Solar Farm (2020)**
Responsible for drainage design of the solar farm.
- **Fairfield Road Residential Planning and Design (2020-present)**
Kristian was responsible storm, foul and watermain design of the residential development. The development consists of 49 houses and apartments.
- **Derryville Anaerobic Digester (2020)**
Kristian was responsible for preparation of the hydrology and water quality chapter of the environmental impact assessment report. He had undertaken the site investigation to identify hydrological constraints. He determined increase in runoff due to the development and impacts of the development on hydrology and water quality. He had to propose mitigation measure for construction, operation and decommissioning stage of the development. He was responsible for flood risk assessment and drainage design.
- **Dannistown Solar Farm (2020) & Oola Solar Farm Flood Risk Assessment (2020)**
Responsible for drainage design for the solar farm.
- **Navan & Oola Solar Farm Flood Risk Assessment (2020)**
Kristian was responsible to develop flood depth maps for Flood Zone A and Flood Zone B. It was required to estimate the flood depth to determine the height of the solar panels.
- **Oil Separator at MSB Brinny (2020-present)**
Kristian was responsible for drainage design at MSB Brinny Site. An existing oil separator was replaced by two NSBE125 Bypass Oil Separators.

Key Information

Qualifications

- Master (Summa Cum Laude) in Civil Engineering,
University of Zagreb, 2015
- Bachelor of Engineering (Hons) in Civil Engineering,
University of Zagreb, 2013
- Bachelor of Engineering (Hons) in Civil Engineering,
Polytechnic of Zagreb, 2012

Professional Memberships

BEng ME MIEI

Employment History

2019- Present

Fehily Timoney & Company, Cork

2016 – 2018

Hydroconsult Design Ltd., Croatia

2015 – 2016

Hydroengineering Ltd., Croatia



Kristian Divjak

Civil Design Engineer



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- **Cork County Bridge Rehabilitation (2019-2020)**

Kristian was responsible for high-level hydraulic analysis for nine bridges located throughout Cork County. It was determined that the Lisheenleigh Bridge needed to be replaced. Kristian was responsible for hydraulic modelling, technical report writing and filling out a Section 50 Application form.

- **Coom Green Energy Park (2019 – present)**

Kristian was responsible for preparation of the hydrology and water quality chapter of the environmental impact assessment report. He had undertaken the site investigation to identify hydrological constraints. He determined increase in runoff due to the development and impacts of the development on hydrology and water quality. He had to propose mitigation measure for construction, operation and decommissioning stage of the development. He was responsible for flood risk assessment and drainage design. Drainage design has been carried out in In-house Excel spreadsheet and Pipe Flow Advisor.

- **Dernacart Wind Farm (2019)**

Kristian was responsible for preparation of the hydrology and water quality chapter of the environmental impact assessment report. He had undertaken the site investigation to identify hydrological constraints. He determined increase in runoff due to the development and impacts of the development on hydrology and water quality. He had to propose mitigation measure for construction, operation and decommissioning stage of the development. He was responsible for flood risk assessment and drainage design. Drainage design has been carried out in In-house, Excel spreadsheet and Pipe Flow Advisor.

- **Croaghaun Wind Farm (2019-present)**

Kristian was responsible for preparation of the hydrology and water quality chapter of the environmental impact assessment report. He had undertaken the site investigation to identify hydrological constraints. He determined increase in runoff due to the development and impacts of the development on hydrology and water quality. He had to propose mitigation measure for construction, operation and decommissioning stage of the development. He was responsible for flood risk assessment and drainage design. Drainage design has been carried out in In-house Excel spreadsheet and Pipe Flow Advisor.

- **Boolard Wind Farm Detailed Design (2019)**

Responsible for drainage design for the Boolard Wind Farm.

- **Killcurly Solar Farm (2019-2020)**

Kristian was responsible for preparation of the hydrology and water quality chapter of the environmental impact assessment report. He had undertaken the site investigation to identify hydrological constraints. He determined increase in runoff due to the development and impacts of the development on hydrology and water quality. He had to propose mitigation measure for construction, operation and decommissioning stage of the development. He was responsible for flood risk assessment and drainage design. Drainage design has been carried out in In-house Excel spreadsheet and Pipe Flow Advisor.

- **Croom Residential Development (2019 – present)**

Kristian was responsible for drainage design for Croom residential development. Croom residential development consists of 11 apartments. Kristian designed storm, foul and water main network. Storm water and foul network were designed with Flow software developed by Causeway. Water main was designed with EPANET software.

- **Feasibility Report Listry Bridge (2019)**

Kristian was responsible to hydraulic and hydrology assessment of the Bridge Listry. It was required to determine the flow conveyance of the bridge and soffit level.

- **Section 5 Application Grid Connection Millvale, Co. Wicklow**

Responsible for Section 5 report.

- **Section 5 Application Grid Connection Furryhill, Co. Kildare**

Responsible for Section 5 report.

Hydroconsult Design Ltd., Croatia – 2016 – 2018 – Civil Engineer Consultant

- **Study Documentation for Preparing Flood Control Projects for the Zagrebačko Prisavlje Basin**

Kristian was responsible for technical report writing, hydraulic modelling, estimating costs of flooding for extreme storm events and preparation of flood risk and flood hazard mapping. On this project worked a Consortium of three companies. Due to catchment area and complexity of the project, it was divided into three parts.



Kristian Divjak

Civil Design Engineer



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For assigned part, each company had to provide a description of the current state, hydrology and hydraulic model, estimate costs of fluvial flooding for various storm events, flood risk and flood hazard mapping and propose flood risk mitigation measures: Flood extents have been model for approximately 27km of open channel in HEC-RAS for various extreme flood events. Flood extents were imported into ArcGIS and overlaid with existing infrastructure to estimate costs of flooding. Based on the impact due to flooding, appropriate mitigation measures have been proposed.

- **Planning Permission for Flood Mitigation Measures for Town of Pakrac (2018)**

Kristian was responsible for technical report writing, drainage design for approximately 3.2km of open channel, culvert design and hydraulic modelling of the River Pakra to determine water elevation for various extreme storm events.

Drainage design of open channels was carried out in Civil 3D. Culverts were designed in In-house software. Hydraulic river modelling was carried out in HEC-RAS.

- **Planning Permission for River Regulation of the Bednja River (2018)**

Kristian was responsible for technical report writing and hydraulic river modelling for approximately 9.7 km of the Bednja River to determine required elevation of embankments for extreme storm events.

The hydraulic model of the Bednja River was developed in HEC-RAS.

- **Planning Permission for an Earthen Retention at Catchment Bahunsko (2017)**

Kristian was responsible for technical report writing and design of an earthen retention at catchment Bahunsko. He was responsible to determine the flood extents due to construction of a dam and design of an outfall and emergency spillway.

Extreme storm events were modelled in HEC-HMS based on recorded historic rainfall data. The flood extents were determined in ArcGIS for various water elevations. An outfall and emergency spillway were designed in In-house Excel spreadsheet.



Ben O'Dwyer

Project Ecologist



CONSULTANTS IN ENGINEERING,
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& PLANNING

Profile

Ben O'Dwyer is a Project Ecologist working as part of the Energy and Environment Team at Fehily Timoney and Company. He Holds a first class honours Bachelor of Science (BSc) in Wildlife Biology from Institute of Technology Tralee, obtained in 2016. His degree focused on conservation of habitats, flora and fauna, with strong emphases on European and international legislation, and practical field skills.

Since joining FT, Ben has carried out numerous habitat surveys, including surveys of peatland, woodland, grassland, and riverine habitats, and also qualitative assessments and mapping of the same. He has carried out bird surveys for a number of wind energy projects, including summer & winter vantage point surveys, breeding bird surveys, and tailored surveys for particular groups and species.

He has also carried out numerous mammal surveys including bat, badger, otter, and general mammal surveys, and acted as ecological clerk of works on a cable route construction project.

A large portion of his work is focused on the survey and assessment of proposed wind and solar energy development sites, and he has carried out comprehensive ecological work on a number of sites, from plant and animal surveys and habitat mapping, to Ecological Appraisals, AA Screening Reports, and Ecological Enhancement Plans.

Key Skills

- Bat identification using bat detectors, behavioral characteristics & software-based analysis of recorded calls
- Bird identification (by sight & sound), behavioral observations & flight line mapping
- Bat roost survey
- Plant identification
- Habitat mapping
- Invasive species survey
- Mammal identification (field signs, live sightings & trail camera survey)
- Habitat assessment
- Report writing and impact assessment (Ecological Impact Assessment, AA Screening & Stage 2 Natura Impact Statement)
- Derogation Licence applications
- Ecological supervision, collaboration with other disciplines at both planning and construction stages

Project Experience

Wind Energy Projects

- Confidential wind farm Co. Laois – Biodiversity Chapter for EIAR
- Confidential wind farm, Co. Cork – Turbine delivery route nodes survey, passive bat detector survey, replant lands survey, AA screenings for TDR route & replant lands
- Confidential wind farm Co. Laois (2) – Summer & Winter VP surveys; Bird Survey Data Collation; Bat Surveys (activity, emergence & passive detector surveys); Habitat Survey; Mammal Survey
- Confidential wind farm Co. Meath – Winter VP Survey
- Drehid wind farm Co. Kildare – Summer & Winter VP surveys; Dawn/Dusk Winter VP Survey
- Barranafaddock Windfarm – Post-Construction Collision Monitoring Survey & Scavenger Trial; Remedial AA Screening

Key Information

Qualifications

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

Employment History

2016- Present

Fehily Timoney & Company
Ecologist

2015

Malachy Walsh & Partners, Tralee
Work Placement



Ben O'Dwyer

Project Ecologist



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- Moanvane Windfarm – Bat Survey; Bird Survey Data Collation; Habitat Surveys; Mammal Survey; Replant Lands Habitat Survey
- Meenwaun Windfarm - Pre-Construction Badger, Otter & Bat Surveys; Badger Sett Hard-blocking & Monitoring
- Moanincha Windfarm – Post-Construction Collision Monitoring Survey; Bat Survey; Post-Construction VP Surveys
- Confidential Windfarm Co. Cork (2)- Summer & Winter VP surveys; Breeding Bird Surveys; Breeding Moorland Bird Surveys; Merlin Survey
- Raragh Windfarm – Habitat Survey and Bat Survey (Cable Route)
- Galway Wind Park – Doon Bypass Habitat Survey
- Dromada Windfarm – Baseline Vegetation Survey for Hen Harrier Breeding Habitat Management Programme
- Knockacummer Windfarm Grid Connection Cable Route - Ecological Clerk of Works; Invasive Species Survey; Otter Survey; Hen Harrier winter roost surveys
- Derragh Windfarm- preconstruction ornithological and mammal surveys, preconstruction survey report

Solar Energy Projects

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

Miscellaneous Projects

- Dunkettle Interchange – preconstruction mammal & botanical surveys, reporting, otter & badger surveys and mitigation measures, rare plant and moth foodplant translocations, bat surveys, ornithological surveys, amphibian surveys
- N4 Sligo – preconstruction mammal, bat & amphibian surveys, ecological supervision, wildlife licence applications (frog, bat, badger, smooth newt), ecological design
- Cork County Bridge Rehabilitation, South & West Regions- AA Screening Reports
- Tipperary Town Historic Landfill Remediation - Habitat & General Ecology Surveys, Invasive Species Survey, Appropriate Assessment Screening, Invasive Species Management Plan
- Knockharley Landfill – Bat Survey & Desktop Study for EIS, Botanical & Habitat surveys and FI response Botanical & Habitat report
- Monart Spa – Q sampling (Aquatic Macroinvertebrate Identification & Analysis), biological water quality report
- Ballyogan Landfill – Aquatic Macroinvertebrate Identification & Analysis (Q values, SSRS)
- Dunsink Landfill – Aquatic Macroinvertebrate Identification & Analysis (Q values, SSRS)
- North Kerry Line – Habitat & General Ecology Surveys
- Burlington Facility - Habitat & General Ecology Surveys, AA Screening Report
- Center Parcs Gas Pipeline Route - Habitat & General Ecology Surveys
- Enniscorthy Residential Development - Habitat & General Ecology Surveys, with focus on hydrological connections for AA
- Kilbarry Residential & Solar Development EIA - Habitat & General Ecology Surveys, Ecological Appraisal.
- Waterford Airport Runway Extension - Habitat & General Ecology Surveys
- Monaghan Historic Landfills- AA Screenings for Tier 3 Assessments
- Great Southern Trail Greenway - General Ecology Survey (Barnagh Tunnel Section)
- IDA National Technology Park, Limerick - NIS for flood defence berm
- Ballaghveny Landfill- Baseline Biodiversity Survey & Report
- Cúl Na Móna Gasto Grid Plant – Vantage point surveys, Breeding Bird Surveys.



Eoghan O'Sullivan

Air Quality



CONSULTANTS IN ENGINEERING,
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& PLANNING

Profile

Eoghan is a Graduate Engineer at Fehily Timoney and Company working in the Energy and Planning department. He recently completed his four year BE degree in Civil Structural and Environmental Engineering in UCC, receiving first class honours.

Eoghan is an active member of his local GAA club, St. Finbarr's and he also has a keen interest in travel and photography. He has great communication skills and works very well with a team.

Key Skills

Eoghan's key skills are the following:

- EIA
- Feasibility Studies
- Arcmap

Previous Experience Essentials for this Project

- **Hewitts Mills Residential, Cork City**
Undertook a quality audit for a 200 apartment residential development in the northern suburbs of Cork City. The audit evaluated the accessibility of the development for pedestrians, cyclists, motorists and mobility impaired users and it included a site visit and the review of architects design drawings.
- **Milltown Solar Farm, Meath**
Produced a technical note for a solar farm planning application. The note included an assessment of a masonry arch bridge and an evaluation of the surrounding road network for the haul route.
- **Croaghoun Wind Farm, Carlow**
Produced the CEMP and Non-technical summary as part of the EIAR for this proposed wind farm. Also evaluated the proposed haul route as part of the 1st party appeal.
- **Dunkettle Interchange Upgrade Scheme, Cork**
Undertook Environmental monitoring (noise, vibration and dust) for a major infrastructure project including set up, installation, troubleshooting and online monitoring.
- **Mohill Solar Farm, Leitrim**
Produced a stage 1 feasibility report, including GIS mapping, for a potential solar farm in Co. Leitrim.
- **Annagh Wind Farm, Cork**
Prepared two chapters of the EIAR: Chapter 6 – Air and Climate, Chapter 16 Telecommunications and Aviation for a 6-turbine wind farm application in North County Cork
- **Middleton House Solar Farm Extension, Meath**
Contributed to a stage 2 feasibility report for an extension to an already permitted solar farm. Collaborated with in house geologist, planner and ecologist to coordinate site visits and compile the report.

Key Information

Qualifications

2016-2020

BE in Civil Structural and Environmental Engineering
University College Cork (UCC)
Result 1:1

Employment History

2020 – Present

Fehily Timoney and Company
Graduate Engineer

May 2021

Fehily Timoney and Company
GIS Analyst



Eoghan O'Sullivan

Air Quality



CONSULTANTS IN ENGINEERING,
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-
- **Ballinagree Wind Farm, Cork**
Produced the CEMP and Air and Climate Chapter for the EIAR the planning application. Conducted a site access survey to determine suitable entrances to the site that conform the TII requirements for direct accesses.
 - **Goulacullin Constructability Report**
Produced a report that determined the constructability of a proposed wind farm in Co. Cork. The report looked at the constraints associated with the site, the buildability of the layout provided by the client and proposed a more buildable layout.
 - **Noise Monitoring at Various GNI Sites**
Undertook noise surveys at GNI AGI sites across Cork. Measurements were taken at day, evening and night time to establish baseline noise conditions for the sites.
 - **Coom Green Energy Park**
Produced the CEMP and Schedule of Mitigation Measures for SID wind farm application. Erected and monitored site notices for 7 weeks.
 - **Coumragappul Wind Farm**
Prepared two chapters of the EIAR: Chapter 6 – Air and Climate, Chapter 16 Telecommunications and Aviation for an 11-turbine wind farm application in North County Waterford. Undertook a planning search for the site to determine nearby developments.

Jim Singleton**PRINCIPAL TECHNICAL CONSULTANT**

Jim is a Principal Technical Consultant whose experience within acoustics consultancy covers a range of sectors including environmental noise, occupational noise and architectural acoustics, with particular expertise in the energy and industrial sectors.

Jim is the Team Manager of the Site Services team with a specific focus on delivering noise and shadow flicker services for windfarm developments as well as leading our non-windfarm noise assessment services.

KEY EXPERIENCE

- Noise Propagation Modelling
- Industrial Noise Assessments and compliance monitoring
- PPC Permitting
- Due Diligence
- Construction Noise Assessments
- Planning applications for commercial, industrial and residential
- Quarrying and blast monitoring (noise & vibration)
- Mixed-use Master Planning
- ETSU-R-97 Noise Assessments
- Shadow Flicker Assessments
- BREEAM Assessments
- Room acoustics modelling

EDUCATION AND PROFESSIONAL STATUS

Diploma in Acoustics & Noise Control, Institute of Acoustics (2008)

BSc. (Hons) Music Technology, First Class (2001)

Member of the Institute of Acoustics (MIOA)

Member of the Audio Engineering Society (AES)

EXPERIENCE RECORD

2014 - Current **TNEI Services Ltd**
Principal Technical Consultant & Team Manager

Energy Projects

Jim regularly works on energy projects covering a range of generation types from conventional energy through to renewables, storage and electrical infrastructure. Projects of note include:

- Roosecote 50MW battery storage facility
- Capacity Mechanism Schemes, numerous (1MW – 40+MW)
- NorthConnect (Norway / Scotland Interconnector)
- Galloper 336MW offshore wind farm onshore substation
- Aberdeen 92MW offshore wind farm onshore substation
- New Gorbals District Heating Scheme
- Wormit Solar Farm



Position in Firm:
Principal Technical
Consultant

Discipline:
Acoustics

Experience:
12 years (consultancy)
6 years (lecturing)

Key Qualifications:
Diploma in Acoustics
& Noise Control (IOA)

BSc (Hons) Music
Technology

**Professional
Memberships:**

MIOA
AES

Marine, Near-shore and Ports

Jim has worked both locally and internationally on marine, near shore and port projects and provided a wide range of consultancy services to this sector. Examples include;

- Umm Qasr, Iraq (ESIA studies and chapter for extension of container port and RORO services)
- Port of Cromarty Firth, Invergordon (PPC application for oil & gas decommissioning and offshore asset recovery)
- Lochmaddy/Tarbert (Harbour expansions to facilitate larger ferry on Isle of Harris and North Uist.
- Johan Castberg FPSO Module (operational noise predictions for floating production storage and offloading vessel)
- Aberdeen Offshore Windfarm landfall, Blackdog (Predictions & measurements for cable winching from offshore to landfall).

Industrial Projects

Jim has significant experience of industrial noise assessments including PPC permit applications/variations, BS4142 assessments for planning applications and noise control and management for compliance and/or complaints. Recent projects of note include;

- Confidential Site, Proposed Open Cast Coal Mine (EIA noise assessment)
- Drakelow Energy from Waste plant (EIA and PPC application)
- Great Coates Energy from Waste plant (EIA)
- Binn Farm SRF Processing Facility (PPC application and compliance)
- SGL Carbon Fibers (PPC Permit compliance monitoring)
- BSW Timber Newbridge (Planning applications)
- Port of Cromarty Firth, Invergordon (PPC applications and construction noise assessments)

Residential Developments

Jim has worked on a number of residential developments assessing site suitability, providing planning application noise impact assessments, monitoring for compliance with planning conditions and specification of building facades, barriers and other noise control measures.

Recent projects of note include;

- Gosforth Business Park – Road traffic and industrial noise studies
- Newcastle Great Park Cell A – Road traffic and aircraft noise assessments
- Newcastle Great Park Cell D – Road traffic noise assessments
- Newcastle Great Park Cell G – Compliance monitoring
- Royal Quays, North Shields – Planning application
- Cannon Street, Hull – Planning application

**2011 – 2014 Atmos Consulting Ltd, Edinburgh
Senior Consultant (Acoustics & Noise)**

Whilst at Atmos, Jim authored the ES noise chapters of several Section 36 and large scale wind farms as well as numerous medium scale and FIT scheme developments. Other renewable energy projects included a number of biomass plants, wood fuel pellet production facilities and run-of-river hydro schemes.

Jim's experience of noise assessments outside of renewable energy covered a wide range of sectors. Some interesting projects of note include:

- Hovercraft crossing feasibility studies (Kirkcaldy to Edinburgh)
- Go-Kart Track, Aviemore – Impact assessment for planning application within a National Park;
- St Andrews International Golf Club – Impact assessment for planning application;
- Mixed use development, Muir of Ord – Master planning for outline planning;
- Housing development, Llandrindod wells – Site suitability assessment;

2007 – 2011 BMT Cordah Ltd, Glasgow & New Acoustics, Glasgow

Prior to concentrating on the energy and industrial sectors Jim worked on a significant amount of architectural acoustics projects as well as environmental noise. Architectural acoustics work has included room design, sound insulation testing, mechanical ventilation calculations, facade specifications and internal partition specification.

Interesting projects of note include;

- Acoustic design for the conversion of a Victorian warehouse space into the Kvadrat Showroom (London), as featured in Wallpaper magazine, working with Peter Saville and David Adjaye.
- Specification of internal partitions and acoustic design of specialist spaces for University of West Scotland, Ayr Campus (including recording & TV studios, radio studios, lecture theatres, performance spaces and atria).
- Acoustic design for the restoration of Triskel Christchurch, Cork, into a live music venue. Now renowned in Ireland for its acoustics.
- Mechanical ventilation calculations and design input for the Briggait, Glasgow. Conversion of former fish market into artist studios and exhibition spaces. The Briggait
- ETSU-R-97 noise assessment for the Viking Wind Farm, Shetland;
- PPC planning application and ES noise chapter for Northern Ireland's first large scale 'wood to energy' CHP.

Mark Tideswell**TECHNICAL CONSULTANT**

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

KEY EXPERIENCE

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

EDUCATION AND PROFESSIONAL STATUS

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

EXPERIENCE RECORD**2013 – Present TNEI Services Ltd****Noise Assessment**

Mark has undertaken noise assessments and provided support for a range of different development types, including: Wind Farms, energy generation and storage, Industrial and Residential schemes.

Projects of note include:

- Wind turbine compliance noise assessment (project confidential) on South Uist for Comhairle Nan Eilean Siar.
- Spaldington Wind Farm: Noise level monitoring and reporting for wind farm construction activities, including piling.
- Lindhurst Wind Farm: Wind farm noise compliance monitoring and assessment.
- Rumer Hill Gas Peaking Plant: Baseline noise monitoring and BS4142 assessment for the operation of externally located gas powered engine/generator sets.
- Newcastle Great Park: Production of noise propagation models and noise mapping of a large housing development in Newcastle in order to assess the potential impacts of road and aircraft noise.

**Position in Firm:**
Technical Consultant**Experience:**
6 years**Key Qualifications:**
- BSc (Hons) Music
Technology
- Diploma in Acoustics
& Noise Control (IOA)**Professional
Memberships:**
- AMIOA

GIS and Mapping Services

Mark has provided GIS and CAD support for numerous projects at TNEI, including renewable energy, power systems, and residential and industrial developments. Duties typically include data management and analysis, site finding and feasibility assessments, site design, production of technical plans and figures, and general mapping services for the duration of a project.

Projects of note include:

- WPD Grid Study: Mapped the WPD electricity distribution grid network across the south-west of England.
- ZNSHINE SOLAR Site Search: Feasibility assessment to identify potential sites suitable for solar development in England through the use of geographic data.
- Bankend Rig Wind Farm Extension: Provided GIS and mapping support for the planning application of the consented Bankend Rig Wind Farm Extension, including the production of supporting figures, plans and technical drawings.
- Hydrogen fuel cell development in Orkney: Production of GIS models and figures.
- STOR site in Lancashire: Produced GIS models and figures for three gas turbine engines.
- Feasibility studies for large scale STOR sites for up to 50MWe of generators/engines.

Tony Cummins BA MA

Senior Archaeologist & EIA Consultant

Professional Qualifications

B.A. Degree (Archaeology) UCC, 1992

M.A. Degree (Archaeology), UCC, 1994

Licence-eligible Archaeologist since 1998

Career Profile

<i>2009 to present:</i>	Senior Archaeologist , John Cronin & Associates
<i>2009</i>	Consultant researcher , INSTAR Research Project, Archaeology Dept., UCC
<i>2003-2009</i>	Project Manager , Sheila Lane & Associates
<i>2003</i>	Project Manager , Eachtra Archaeological Projects
<i>1999-2002</i>	Senior Archaeologist , Aegis Archaeology
<i>1998-1999</i>	Project Manager , Archaeological Services Unit, Archaeology Dept. UCC
<i>1991-1998</i>	Member of various archaeological excavation teams

Relevant Experience

Tony has been a Senior Archaeologist with John Cronin & Associates since 2009 and has over twenty-five years continuous experience as a professional archaeologist. He has been a licence-eligible archaeologist since 1998 and has directed numerous excavations in Ireland as well as participating in archaeological projects in Britain and Lebanon. Tony also has gained a number of years' experience as the archaeological project manager overseeing archaeological works on a number of large-scale infrastructure projects, including the Limerick Southern Ring Road, Waterford City Bypass, Killaloe Bypass and Clashavoon-Dunmanway 110kV transmission circuit. This allowed him to gain extensive experience in the preparation of impact assessments, directing excavations, co-ordinating research studies and compiling reports for submission to state agencies and planning authorities.

Tony has extensive experience in preparing environmental impact assessments for numerous wind farm projects which included co-ordinating with other relevant consultants, including project design teams and LVA specialists. Examples of some of these projects include: Derrybrien rEIAR (Co. Galway), Glentane and Knockeenboy (Co. Cork), Shragh (Co. Clare), Bunmahon (Co. Waterford), Carrigdown (Co. Tipperary) and Tullynamoyle (Co. Leitrim).

John Cronin BA MRUP MUBC Dip. Geol MIAI Principal Consultant & Architectural Heritage Specialist

Professional Qualifications

Master of Urban & Building Conservation, School of Architecture, University College Dublin, 1999

Diploma in Geology, University College Cork, 1996

Master of Regional & Urban Planning, University College Dublin, 1993

Bachelor of Arts (Honours) - Archaeology & Geography, University College Cork, 1991

Member of Institute of Archaeologists of Ireland

Career Profile

<i>2000 to date</i>	Managing Director and Principal Consultant , John Cronin & Associates
<i>1999 – 2000</i>	Executive Planner (Conservation) , Donegal County Council
<i>1998 – 1999</i>	Conservation Officer , Cork County Council
<i>1995 – 1998</i>	Archaeology and Historic Building Officer , Cork County Council
<i>1994 – 1995</i>	Principal Research Officer , Urban Archaeological Survey, UCC, Cork
<i>1993 – 1994</i>	Surveyor , Landesamt für Archäologie, Dresden, Germany

Relevant Experience

Mr Cronin is an archaeologist, town planner and building conservation consultant with over twenty years post-graduate experience in the public and private sectors. Mr Cronin has prepared numerous cultural heritage assessments for environmental impact assessments and has also supervised architectural surveys throughout the country. He has also acted as a built heritage consultant to Transport Infrastructure Ireland, The Heritage Council, the National Inventory of Architectural Heritage and various planning authorities.

Mr. Cronin has carried out archaeological and architectural heritage assessments for numerous large-scale infrastructure projects and the following are a short selection of same:

- **A1/N1 Newry-Dundalk Road Scheme** Dual carriageway link road across the border between Cloghoge roundabout, south of Newry, and Ballymascanlan interchange, north of Dundalk. Working in association with RPS Group, John Cronin was responsible for (i) Cultural Heritage Impact Assessment of the proposed scheme, (ii) expert Evidence at An Bord Pleanála hearing and (iii) specification of archaeological mitigation measures.
- **Galway City Outer Bypass (GCOB)** John Cronin project managed the archaeological, architectural and cultural heritage assessment input and specialist advise for the constraints, route option stage and EIS stage of the GCOB project. John also provided expert witness evidence at the oral hearing held by An Bord Pleanála.
- **Wind Farm Projects:** John has project-managed the assessment of numerous wind farm projects throughout the country and examples include Barnastooka and Kilgarvan (Co. Kerry), Sliabh Bawn (Co. Roscommon) and Streamhill (Co. Cork).

Richard Barker

MLA. BA Env. PG Dip For.
MILI.



Position: Principal Landscape Architect

Qualifications: Irish Landscape Institute Professional Practice Qualification – 2005
MLA – Lincoln University - 2003
PG Diploma Forestry – Canterbury University - 1996
BA Environmental Science – Massey University - 1995

Professional Affiliations: Corporate Member of the Irish Landscape Institute

Professional Experience

Richard formerly worked as a Town Planner in New Zealand, London and Dublin before moving into the field of Landscape Architecture. He has spent the last 16 years working as a Landscape Architect in Ireland and has considerable experience in the fields of both Landscape and Visual Impact Assessment (LVIA) and landscape design, covering all stages from project feasibility through to construction. This cross-over of expertise is invaluable in determining and designing the most appropriate and effective form of landscape and visual mitigation for infrastructural development projects.

Richard manages the LVIA department in Macro Works undertaking assessment work on a broad spectrum of projects from wind and solar energy, to roads and large-scale industrial and infrastructural development. Richard has personally completed the landscape and visual assessment of over 90 wind farms and 80 solar farms including nine SID projects. Consequently, he has considerable oral hearing expert witness experience. This extends to more than 15 oral hearings over the past 12 years with four of these being for large SID wind farm projects.

Richard has presented a number of conference papers relating to sustainable landscape design and LVIA as well as delivering the inaugural workshop on the landscape and visual effects of wind energy developments on behalf of the Irish Wind Energy Association. He has presented a paper to members of the Irish Landscape Institute on the application of the Guidelines for Landscape and Visual Impact Assessment (2013) using a wind energy case study. Richard has also delivered guest lectures to the University College Dublin professional course in EIA Management in relation to LVIA.

Key Projects

Coom Wind Farm	Brookfield / Coillte	135MW SID wind energy development
Barnesmore Repower Wind Farm	SPR	85MW SID wind energy development
Derryadd Wind Farm	Coillte	120MW SID wind energy development
Cluddaun Wind Farm	Coillte	120MW SID wind energy development
Emlagh Wind Farm	Element Power	120MW SID wind energy development
Maighne Wind Farm	Element Power	120MW SID wind energy development
Yellow River Wind Farm	Greenwind	95MW SID wind energy development
Mount Lucas Wind Farm	Bord na Mona	80MW wind energy development
Carrowleagh / Kilbride Wind Farm	John Duffy Assoc.	48.5MW wind energy development
Bruckana Wind Farm	Bord na Mona	45MW wind energy development
Lisheen III Wind Farm	Bord Gais	20MW third phase wind energy development

Feasibility and design optimisation studies for 10+ Offshore wind energy sites

LVIA for 90+ other Wind Energy developments

LVIA for 80+ Solar Energy Proposals



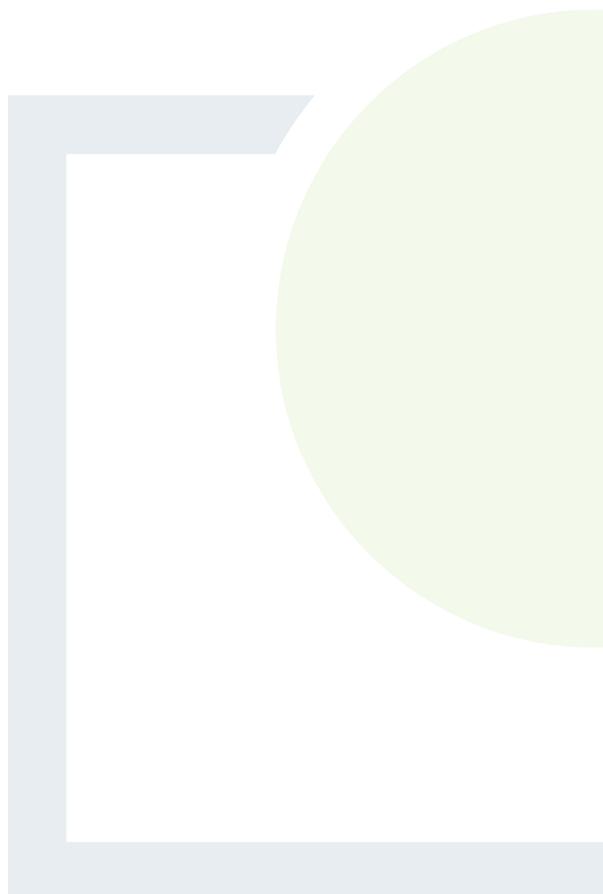
Jamie Ball BA – Landscape Architecture MILI	Position:	Senior Landscape Architect
	Professional Experience	
	<p>Jamie is a Senior Landscape Architect and team leader within Macro Works and has been with us since 2017. He undertakes assessments for a wide range of development types across our portfolio. A Dublin-native, he has broad experience from several leading landscape consultancies, both domestic and international (i.e. USA and Australia) and has been involved in a number of high profile projects since graduating with Honours from the University of Gloucestershire in 1998.</p> <p>Jamie has also spent a number of years as an award-winning travel & tourism journalist, endowing him with a unique analytical and writing ability that is critical to high quality LVIA's. For this reason, Jamie also undertakes internal reviews of many of Macro Works LVIA reports.</p>	



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APPENDIX 1.2

Projects Considered in the
Cumulative Assessment

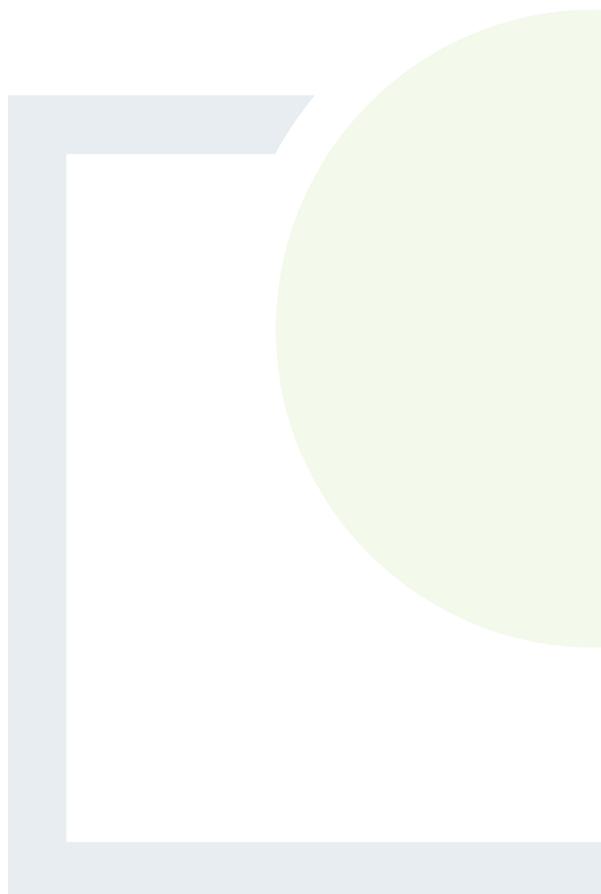




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APPENDIX 1.2

Projects Considered in the
Cumulative Assessment



Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Residential	X 551786 Y 617496	2021	215390	Conditional	Decision Made	To construct a new garden equipment storage shed with all associated site and ancillary works	Coolcaum, Churchtown, Mallow, Co. Cork	0.6km from Turbine 3
Residential	X 549406 Y 618188	2020	205460	Conditional	Finalised	Retention and completion of an extension to gable end of existing dwelling and permission for construction of a new vehicular entrance.	Ardglass, Charleville, Co. Cork	0.8km from Turbine 2
Residential	X 550579 Y 619511	2020	204273	Conditional	Finalised	To install a septic tank with percolation area and all associated site works.	Milltown, Charleville, Co. Cork	1.6km from Turbine 1
Residential	X 550861 Y 620510	2020	204888	Conditional	Finalised	Construct a two storey/storey and a half style extension to rear of cottage, domestic garage, entrance and a secondary wastewater treatment system including renovations and alterations to existing cottage and all associated site works.	Milltown, Charleville, Co. Cork	2.4km from Turbine 1
Residential	X 548197 Y 619981	2020	206498	Conditional	Finalised	To demolish part of dwelling house and to erect a bungalow type extension with attic development to remaining dwelling house also to decommission existing effluent treatment system and percolation area and install a new waste water treatment unit and polishing filter all within their site.	Boolar, Newtownshandrum, Charleville, Co. Cork	2.8km from Turbine 2
Residential	X 552720 Y 615373	2020	204706	Conditional	Finalised	Retention of detached domestic garage/store, timber store and partial attic conversion to include 2no. rooflights to rear of existing dwelling house. Permission to construct a new single storey extension to rear and side of existing dwelling house.	Ballynageragh, Ballyhea, Co. Cork	2.5km from Turbine 6
Agricultural	X 552030 Y 614490	2019	195540	Conditional	Finalised	Construct a bovine livestock unit with underground effluent storage tank and all associated site and ancillary works.	Ballindillanig, Churchtown, Mallow, Co. Cork	2.7km from Turbine 6
Agricultural	X 548678 Y 620309	2019	196819	Conditional	Finalised	Construction of milking parlour including dairy, plant room, collection yard and slatted tank.	Clyderragh, Newtown, Co. Cork	2.7km from Turbine 2
Residential	X 553086 Y 617929	2018	187048	Conditional	Finalised	Retention of alterations to elevations of existing dwelling house from that granted under planning reference no. 06/9062, retention of 2 number velux style roof lights on rear elevation, also retention of constructed domestic garage and all associated site works.	Ballynadrideen, Ballyhea, Charleville, Co. Cork	2.1km from Turbine 3
Residential	X 552789 Y 615373	2018	186347	Conditional	Finalised	a) construct a rear extension to existing dwelling house, b) entrance, waste water treatment system and all other site works	Ballynageragh, Ballyhea, Co. Cork	2.5km from Turbine 6
Residential	X 552213 Y 619384	2017	176925	Conditional	Finalised	The construction for a new dwelling house with domestic garage, entrance, wastewater treatment plant and percolation area with all associated site and ancillary works.	Farranshonikeen, Ballyhay, Charleville, Co. Cork	1.9km from Turbine 1

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Residential	X 553152 Y 617706	2016	166283	Conditional	Finalised	Construction of extension to rear and alterations to existing dwelling house, raising of roof of existing dwelling and alteration to existing window layout on side elevations, installation of Velux style windows to front roof and all associated site works.	Ballynadrideen, Ballyhea, Charleville, Co. Cork	2.7km from Turbine 6
Residential	X 548197 Y 619981	2016	166602	Conditional	Finalised	Retention of as built extension constructed off eastern gable of the original cottage, alterations to the original cottage, relocation of the vehicular entrance point and associated site works (Amendments to permission granted under Planning Reg. No. N/1092/90)	Booldard, Newtownshandrum, Charleville, Co. Cork	2.8km from Turbine 2
Agricultural	X 552620 Y 619157	2016	164520	Conditional	Finalised	Retention for 3 no. attached buildings, concrete yard, boundary walls and associated works and for Retention of Change of Use from agriculture to a paunch manure and de-watered sludge storage facility. Permission is sought to construct a side extension to this paunch and de-watered sludge facility and to extend the existing concrete yard and boundary walls together with contaminated water collection sump and disposal pipework to adjacent wastewater treatment plant and associated works all on their lands.	Ardnageehy, Charleville, Co. Cork	1.8km from Turbine 1
Agricultural	X 551117 Y 618838	2015	155604	Conditional	Finalised	Retention of 2 no. agricultural structures to include the following: (1) straw bedded calf shed, (2) roofless cubicles and slatted slurry channel, and (B) construction of 5 no. agricultural structures to include the following: (3) straw bedded calf shed, (4) shed over existing livestock handling area, (5) roof over roofless cubicles and slatted slurry flow channel to be retained (see point 2 above), (6) shed over soiled yard, and (7) 1 no. silage pit, along with associated site works. This development is within the curtilage of a Protected Structure (RPS No: 00020)	Cooliney Houe, Cooliney, Charleville, Co. Cork	0.95km from Turbine 1
Substation Cable	X 551123 Y 619019	2019	196817	Conditional	Finalised	Consisting of: Installation of 4,387 metres of underground electricity cable between a proposed solar farm at Fiddane, Ballyhea, Charleville, Co. Cork and Charleville 110kV ESB Substation at Clashganniv, Ballyhea, Co. Cork to be installed entirely under public roads. The underground electricity cable passes through the townlands of Ardglass, Fiddane, Cooliney, Rathnacally, farranshonikeen, Ardnageehy and Clashganniv, County Cork. A Natura Impact Statement will be submitted to the Planning Authority with this application.	Ardglass, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy, Clashganniv, Co. Cork	0.01km from Main Wind Farm Site
Solar Farm	X 552803 Y 616819	2020	204041	Conditional	Finalised	A 10 year planning permission for the development of a 102.76 hectare solar PV farm and 3.425 kilometre underground electricity grid connection (0.34 hectares)	Townlands of Ballyroe, Dromin, Ballynadrideen, Ardnageehy,	0.9km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
						giving a total combined area for both the solar farm and underground grid connection of 103.1 hectares. The proposed solar farm will consist of the installation of a 40 year operation and subsequent decommissioning of a series of ground mounted solar photovoltaic (PV) panels, mounted on steel support structures, together with 1 single storey ESB control room, 12 electrical transformation enclosures, underground cabling, inverters, CCTV poles and cameras, deer type security fencing, existing site entrance from the L5529 road, access tracks, hardstanding area, landscaping and biodiversity measures and all associated ancillary development works, for the purpose of generating renewable energy electricity. The proposed solar farm is located in the townlands of Ballyroe and Dromin, Ballyhea, Charleville, County Cork. The proposed underground electricity grid connection is to be installed entirely under public roads from the proposed solar farm at Ballyroe to Charleville 110kV ESB substation, which passes through the townlands of Ballyroe, Ballynadrideen, Ardnageehy, Rathnacally and Clashganniv in Ballyhea, Charleville, County Cork. A Natura Impact Statement will be submitted to the planning authority with this application.	Rathnacally, and Clashganniv in Ballyhea, Charleville, Co. Cork	
Booldard Wind Farm	X 548173 Y 619110	2017	175292	Conditional	Finalised	Works to connect the permitted Booldard Wind Farm (Reg. Refs. 12/5997 and 15/5521/PL.04.245560) to the existing Charleville 110kV ESB substation comprising as follows: installation of approximately 5.694 km of 20kV underground electricity cable and fibre communications cable in ducting; 12 no. joint bays, 12 no. communications chambers and 2 no. earth link boxes (all underground); access covers to chambers and boxes at finished surface level; ancillary marker posts and marker plates as necessary; the replacement of an existing concrete pipe with a box culvert under an existing agricultural track and the construction of new parapet walls above the track; and all associated site development and reinstatement works. The development will consist of alterations to permitted wind farm site layout (as per Reg. Ref. 12/5997 and 15/5521 / PL.04.245560) as follows i) widening of permitted vehicular site entrance, ii) provision of 2 no. turning areas/overrun areas for turbine delivery/construction vehicles off the permitted wind farm site road iii) localized realignment and refinement of internal wind farm site road network, iv) increased crane pad size at both permitted turbine locations, and	Booldard, Shinanagh, Clyderragh, Cloghanughera, , Killaree, Ardmore, Kiltass, Milltown,, Garrynagranoge, Ballypierce, Clashganniv,, Rathnacally, Charleville, Co Cork.	1.65km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Solar Farm	X 549744 Y 617851	2017	175799	Conditional	Finalised	v) also, construction of control building (minor change of location from Reg. Ref. 15/5521/PL.04.245560). Development of a 67.8 hectare Solar PV Farm. The proposed solar farm will consist of the installation of a 30 year operation and subsequent decommissioning of a series of ground mounted solar photovoltaic (PV) panels, mounted on steel support structures 2.1m in height, together with 1 single storey ESB control room, 14 electrical transformation enclosures, underground cabling, CCTV poles and cameras, deer type security fencing, site entrance, hardstanding area, landscaping along part of the northern site boundary and other associated development works, for the purpose of generating renewable energy electricity.	Fiddane, Ballyhea, Co. Cork, Co. Cork	0.1km from Main Wind Farm Site
Underground Electricity Cable	X 552697 Y 620047	2016	166718	Conditional	Finalised	The installation of 458m of 20kV underground electricity cable, to be contained within ducting; ancillary marker posts; and all associated site development and reinstatement works. The works are required to connect the permitted Rathnacally Wind Farm (Pl. Reg. Nos. 12/4446 and 15/5525) to the existing Charleville 110kV ESBN substation.	Rathnacally and Garrynagranoge, Charleville, Co. Cork	2.5km from Main Wind Farm Site
Wind Farm	X 552355 Y 619939	2015	155525	Conditional	Finalised	Construction of control building for wind turbine development (change of plan from that permitted under planning reg. No. 12/4446) to meet new ESB Network standard.	Rathnacally, Charleville, Co. Cork	2.5km from Main Wind Farm Site
Gas pressure unit	X 553339 Y 623045	2017	174136	Conditional	Finalised	The development will consist of the installation of a 3m high 'lamp post' style relief vent stack servicing the existing above ground natural gas pressure reduction unit with all ancillary services and associated site works	The Turrets DRI, The Turrets, Rathgoggan Middle, Charleville, Co. Cork	5.5km from Main Wind Farm Site
Mast	X 561605 Y 617299	2017	175773	Conditional	Finalised	Replacement of an existing telecommunications mast 10m high with one of 18m in height, so as to continue to supply a Broadband and Phone service from existing compound. The existing 7 dishes and 2 antennae will be transported across to the new mast and 8 new dishes will be added to enhance the service. Four of the five cabins on site, will be retained including one for the Limerick Fire Service	Ballyhoura Mountains, Carer North, Ballycoskery, Co. Cork	11km from Main Wind Farm Site
Solar Farm	X 564362 Y 628642	2018	18679	Conditional	Finalised	developing a solar farm on a site located in the townland of Gibbonstown, Kilmallock, Co. Limerick. The proposed solar farm will comprise the construction and operation of solar PV arrays mounted on metal frames on an approx. 20 ha site inclusive of a single electrical control building up to 5 inverter units, a temporary construction area and ancillary facilities, drainage swales, boundary security fence with CCTV units, an access track, all	Gibbonstown,, Kilmallock,, Co. Limerick.	15km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Solar Farm	X 561315 Y 664440	2017	17326	Conditional	Appealed	associated works (inclusive of gross floor space of proposed works up to 146 sq. m) and habitat management and enhancement measures. The planning application is accompanied by an environmental report and stage 2 screening for appropriate assessment (for a 10 year permission) development of a solar PV Farm comprising of the installation of a solar PV array consisting of approximately 13.08 hectares of solar panels on ground mounted steel frames, 1 no. single story delivery substation, 4 no. single story inverter/transformer units, drainage swales, underground cable ducts on site, temporary construction compound (including site offices, portable toilets and parking area), boundary security fence, site entrance, access tracks, CCTV and all associated site works, This planning application is accompanied by an Environmental Report, Stage 1 Screening for Appropriate Assessment, Ecology Report, Archaeological Impact Assessment and Photomontages	Ballycullane, Kilmallock, Co Limerick	15km from Main Wind Farm Site
Solar Farm	X 551618 Y 600253	2015	157003	Conditional	Finalised	A 5 MW solar farm comprising approximately 22,200 photovoltaic panels on ground mounted frames within a site area of 15.38 hectares, 2 no. single storey inverter/transformer stations, 1 no. single storey delivery station, security fencing, CCTV and all associated ancillary development works.	Gortnagross, Mallow, Co. Cork	18km from Main Wind Farm Site
Solar Farm	X 551618 Y 600253	2021	214498	Unconditional	Finalised	INTENTION OF DURATION for A 5 MW solar farm comprising approximately 22,200 photovoltaic panels on ground mounted frames within a site area of 15.38 hectares, 2 no. single storey inverter/transformer stations, 1 no. single storey delivery station, security fencing, CCTV and all associated ancillary development works. - Extension of duration of permission granted under planning reference: 15/7003	Gortnagross, Mallow, Co. Cork	18km from Main Wind Farm Site
Solar Farm	X 537729 Y 600630	2016	164601	Conditional	Finalised	A 5 MW solar farm comprising approximately 22,200 photovoltaic panels on ground mounted frames within a site area of 12.23 hectares, 2 no. single storey inverter/transformer stations, 1 no. single storey delivery station, security fencing, CCTV and all associated ancillary development works	Dromalour, Coolclogh, Kanturk, Co. Cork	20km from Main Wind Farm Site
Residential	X 553803 Y 621705	2021	215518	Refused	Decided	The construction of a residential development of 56 no. units which will consist of the following: - 12 no. 3-bed semi-detached, 14 no. 3-bed end-terrace, 5 no. 3-bed mid-terrace and 9no. 2-bed mid terrace 2-storey dwelling houses along with 16 no. 1-bed maisonettes. Access to the proposed development is to be provided	Brindle Hill, Rathgoggan South, Charleville, Co. Cork	5km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
						via the existing road serving the adjoining Brindle Hill residential development. Planning permission is also sought for connection to all necessary public services, secure bicycle parking and bin storage, associated landscaping and all ancillary works necessary to facilitate the development.		
Residential	X 552990 Y 622158	2021	215885	Refused	Finalised	The construction of new 45-unit housing development consisting of the following: 26 No. 3-bedroom townhouses, and 19 no. 2-bedroom townhouses, 2 no new vehicular entrances, storm and surface water sewers including attenuation system, public lighting, boundary walls, footpaths, public footpath, open spaces together with all other ancillary site works.	Harrison Place, Rathgoggan Middle, Charleville, Co. Cork	5.2km from Main Wind Farm Site
Residential	X 552932 Y 623271	2021	214872	Conditional	Finalised	A residential development comprising 98 no. residential units, (44 no. semi-detached houses and 48 no. terrace houses and 6 no. one bedroom apartments), and a creche building and all ancillary site development works. Ancillary site development works include connection to the public water main and foul sewer, surface water drainage and attenuation, and access roads, footpaths, vehicle parking, landscaping, boundary treatments and site development works above and below ground.	Rathgoggin Middle, Charleville, Co. Cork	5.8km from Main Wind Farm Site
Waste Water Treatment Plant Upgrade	X 553977 Y 625709	2017	174645	Conditional	Finalised	The development will consist of an upgrade to existing waste water treatment plant. The upgrade works shall include installation of 1 no. anoxic tank, 2 no. aerobic tanks, 1 no. clarifier tank, a cooling tower, chemical dosing tank, splitter tank, polymer dosing kiosk and control room container together with associated plant and pumping systems and all associated site works including earthen berm screening and fencing. The works shall also include the installation of an underground pumped outfall pipeline for the conveyance of treated waste water from the upgraded treatment plant to a discharge point on the River Maigue located approximately 2km north of the waste water treatment plant site. The outfall pipeline shall be routed from a new outfall pump sump within the treatment plant site, extending northwards across agricultural lands in the townlands of Creggane and Garrane in Co. Limerick to the discharge point also located in Garrane, Co. Limerick. (The outfall pipeline installation within Co. Limerick shall be subject to approval of a separate application for planning permission to Limerick City and County Council).	Rathgoggan North, Charleville, Co. Cork	7.5km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Waste Water Treatment Plant Upgrade	X 532007 Y 607604	2016	164597	Conditional	Finalised	<p>The development works relate to an activity for which a revised Industrial Emissions Directive Licence is required.</p> <p>Upgrade to the existing waste water treatment plant (WWTP) with proposed plant including balance tank, anoxic, anaerobic and aeration tanks, proposed clarifier tank, Dissolved Air Flotation (DAF) plant, underground effluent pumping station, culverts, control room, filters and concrete plinths. The proposed development will include the demolition of the existing 11 meter bio-tower at the Newmarket Co-Operative Creameries Ltd facility in Newmarket town, Co Cork, within the townlands of Garranawarrig Upper, Park, Garranawarrig Lower and Liscongill. Installation of an underground pumped pipeline to convey treated water from the facility to a discharge point on the River Dalua, 4 kilometers to the south east of the facility, utilizing the R576 road corridor, including all necessary pipeline connection, drainage and vent infrastructures. Intensification of use of the existing facility through an increase in the duration of the weekly and annual milk processing period at the Newmarket Creamery resulting in an increase in milk processing up to a maximum of 80 million gallons per annum. These changes will be subject to an amendment by EPA, of the existing site Industrial Emissions Directive Licence. An Environmental Impact Statement and Natura Impact Statement accompany this planning application. The proposed development includes work to Allen's Bridge, a recorded monument under the National Monuments Act and is located within the zone of potential for the historic town of Newmarket which has a Recorded Monument designation.</p>	Scarteen Lower, Garranawarrig Upper, Park, Garran, Newmarket, Co. Cork	19.5km from Main Wind Farm Site
Mast	X 546413 Y 612545	2018	184049	Conditional	Finalised	<p>Retain a 24 metre high lattice telecommunications support structure (previously granted permission under Pl. Reg. No. 09/6155 which was a temporary permission which has expired) carrying antennae and link dishes together with associated equipment units and security fencing</p>	Sally Park, Knockardbane, Liscarroll, Co. Cork	7.5km from Main Wind Farm Site
Mast	X 546207 Y 612436	2017	176148	Conditional	Finalised	<p>Retention of the existing 18m high telecommunications mast structure together with antennas, dishes and associated cabin, apparatus and security fencing.</p>	Sally Park Td, Liscarroll, Co.Cork	7.8km from Main Wind Farm Site
Mast	X 559744 Y 614866	2017	177356	Conditional	Finalised	<p>Erection of a 1 x 80m permanent meteorological mast for the purpose of collecting meteorological data. The meteorological mast is a lattice structure of 80m height that will be fixed to ground anchors by guy wires.</p>	Streamhill East, Ballyhoura, Doneraile, Co.Cork	9.8km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Substation	X 554648 Y 609792	2016	167138	Unconditional	Finalised	Alterations to the existing 38kV Buttevant station comprising of extension to the existing control building, two new transformers T41 and T43, new oil interceptor and associated drainage - Extension of duration granted under Planning Reg. No. 11/5938	Buttevant 38KV Station, Spital, Buttevant, Co. Cork	10km from Main Wind Farm Site
Mast	X 553927 Y 613026	2020	204649	Conditional	Finalised	To construct a 30m multi-user lattice telecommunications support structure, carrying antenna and dishes enclosed within a 2.4 metre high palisade fenced compound together with associated ground equipment cabinets and associated site works.	Kilbroney, Buttevant, Co. Cork	10km from Main Wind Farm Site
Residential	X 555468 Y 630609	2017	17939	Conditional	Finalised	the erection of 6 No. Town houses, 14 No. Semi detached houses, on part of existing foundations (planning ref no. P05/1902) service road, footpaths, and connect to ancillary services	Railway Road,, Main Street, Bruree,, Co. Limerick.	13km from Main Wind Farm Site
Residential	X 543209 Y 607018	2019	194460	Conditional	Finalised	Completion of 7 no. dwelling houses (house nos. 27-33) and the construction of 18 no. dwelling houses (house nos. 34A-48), a storm water attenuation tank and associated site works on part of a residential development permitted under planning Reg. Nos. 03/4127, 06/10199, 07/7341 and 08/5638.	27-48 Garran na Dara, Knockballymartin, Kilbrin, Co. Cork	13.6km from Main Wind Farm Site
Residential	X 560798 Y 627297	2017	17926	Conditional	Finalised	the completion of housing development of 33 No. housing units comprising of 7 No. two storey detached, 14 No. two storey semi-detached, 10 No. single storey semi-detached and 2 no single storey detached to match existing as part of scheme previously planning permission granted 28/10/04 (Planning Ref. 03/961) and all associated site works	Gortboy,, Kilmallock.	13.8km from Main Wind Farm Site
Mast	X 533287 Y 621908	2020	20754	Conditional	Appealed	the construction of an 18 metre high free standing communications structure with its associated antennae, communication dishes, ground equipment and all associated site development works	Broadford Eircom Exchange, Tullaha, Broadford, Co. Limerick	16.5km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Quarry	X 546865 Y 603750	2019	195802	Conditional	Appealed	An extension to the existing limestone quarry and all associated site development and landscaping works in the townlands of Scart, Ballyclough, and Kilgilky South. The proposed extension is 5ha. to the east of the existing quarry and will be accessed via a new access road, to be constructed, to the west of the existing quarry, leading directly onto the L1201-57. The applicant is seeking a 15 year planning permission. The proposed development will include; (1) a change of extraction method to blasting; (2) crushing and screening of aggregates; (3) construction of the new access road and upon completion of this new access road, cessation of use of existing access onto the L5302-12 for quarrying activities; (4) installation of a prefabricated administration office and portable toilet; (5) parking area; (6) wheel wash; (7) weighbridge; (8) covered fuel storage area; (9) entrance signs; (10) lighting; (11) CCTV cameras; (12) a rainwater harvesting tank and (13) new overhead and underground power supply. An Environmental Impact Assessment Report (EiAR) will be submitted to the Planning Authority with the Planning Application. A Natura Impact Statement (EIS) will be submitted to the Planning Authority with the Planning Application.	Scart, Ballyclough and Kilgilky South, Cecilstown, Mallow, Co. Cork	16.2km from Main Wind Farm Site
Mast	X 559466 Y 605968	2020	206049	Conditional	Appealed	To erect a 30m telecommunications support structure carrying antenna and dishes and, together with associated ground equipment cabinets and associated equipment, extension to existing access track and site works within a Coillte forest.	Coillte Forest, Lisnagrough, Doneraile, Co. Cork	16.6km from Main Wind Farm Site
Sewerage Scheme	X 557279 Y 598087	2019	195078	Conditional	Finalised	The alteration of Mallow Sewerage Scheme to remove combined sewer overflows from the network. The proposed scheme will include: 1. The alteration of Mallow Wastewater Treatment Plant to provide for wastewater treatment capacity for 22,000pe (increased from 18,000pe) at Ballyellis, Mallow. The WWTP upgrade will comprise construction of new local pumping station, refurbishment/replacement of inlet works, distribution chambers, alteration of existing tanks, construction of plinths and kiosks, sludge import acceptance unit, sludge tanks, chemical storage tanks, associated pumps, replacement of sludge presses in existing sludge building with centrifuges, all with associated odour control facilities, electrical control panels and kiosks, standby power generation equipment and diesel tank, extensions to existing access roads and all associated site development and site excavation	Mallow WWTP, Mallow Bridge Pump Station, Mallow, Ballyellis, Bearforest Lwr, Ballydahin, Spa Glen, Carhookeal, Quattertown Lower, Castlelands, Annabella, Lackanallooha, Kilknockan	19.5km from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
						works above and below ground. 2. Construction of a new pump station at Bearforest Lower, Mallow, to transfer flows from the network to the WWTP at Ballyellis. The development will contain a foul sump, storm sump, valve chamber, lifting gantries, access stairs, control house with MV Substation, storm tank, interconnecting pipework and chambers, overflow pipework and chambers from storm tank to river Blackwater, twin rising mains to WWTP at Ballyellis, flow meter chambers, odour control equipment, 2.4m high boundary fence, access gate, access roads, hardstanding areas, landscaping and all associated site development and site excavation works above and below ground. Existing pump station to be decommissioned and above ground structure demolished on completion. 3. Upgrade of sections of the sewer network in Mallow comprising construction of pipelines and chambers in fields, public open spaces, roads and footpaths in the townlands of Ballyellis, Bearforest Lower, Ballydahin, Carhookkeal, Quattertown Lower, Castlelands, Mallow, Annabella, Lackanallooha, Kilknockan and Spa Glen. Pipelines will include a crossing of the river Blackwater between Castlelands and Bearforest Lower east of Mallow Bridge. A Natura Impact Statement (NIS) will be submitted to the Planning Authority with this application.		
Residential	X 550579 Y 619511	2020	204273	Conditional	Finalised	To install a septic tank with percolation area and all associated site works.	Milltown, Charleville, Co. Cork	<100m from Grid Route
Residential	X550861 Y 620510	2020	204888	Conditional	Finalised	Construct a two storey/storey and a half style extension to rear of cottage, domestic garage, entrance and a secondary wastewater treatment system including renovations and alterations to existing cottage and all associated site works.	Milltown, Charleville, Co. Cork	<100m from Grid Route
Residential	X 551000 Y 620731	2017	176711	Conditional	Finalised	Construct a dwellinghouse and detached domestic garage	Ardmore, Charleville, Co. Cork	<100m from Grid Route
Residential	X 551476 Y 620615	2017	175058	Conditional	Finalised	Construction of 2 storey dwelling house, garage, effluent treatment system, polishing filter, entrance and all associated.	Garrynagranoge, Charleville, Co. Cork	<100m from Grid Route
Residential	X 551747 Y 620501	2020	205664	Conditional	Finalised	To build a garage and all associated site works.	Garrynagranogue, Charleville, Co. Cork	<100m from Grid Route

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Agricultural	X 551118 Y 618949	2015	155604	Conditional	Finalised	Retention of 2 no. agricultural structures to include the following: (1) straw bedded calf shed, (2) roofless cubicles and slatted slurry channel, and (B) construction of 5 no. agricultural structures to include the following: (3) straw bedded calf shed, (4) shed over existing livestock handling area, (5) roof over roofless cubicles and slatted slurry flow channel to be retained (see point 2 above), (6) shed over soiled yard, and (7) 1 no. silage pit, along with associated site works. This development is within the curtilage of a Protected Structure (RPS No: 00020)	Cooliney House, Cooliney, Charleville, Co. Cork	<100m from Grid Route
Residential	X 552213 Y 619384	2017	176925	Conditional	Finalised	The construction for a new dwelling house with domestic garage, entrance, wastewater treatment plant and percolation area with all associated site and ancillary works.	Farranshonikeen, Ballyhay, Charleville, Co. Cork	<100m from Grid Route
Agricultural	X 552620 Y 619157	2016	164520	Conditional	Finalised	Retention for 3 no. attached buildings, concrete yard, boundary walls and associated works and for Retention of Change of Use from agriculture to a paunch manure and de-watered sludge storage facility. Permission is sought to construct a side extension to this paunch and de-watered sludge facility and to extend the existing concrete yard and boundary walls together with contaminated water collection sump and disposal pipework to adjacent wastewater treatment plant and associated works all on their lands.	Ardnageehy, Charleville, Co. Cork	<100m from Grid Route
Solar Farm	X 552801 Y 616708	2020	204041	Conditional	Finalised	A 10 year planning permission for the development of a 102.76 hectare solar PV farm and 3.425 kilometre underground electricity grid connection (0.34 hectares) giving a total combined area for both the solar farm and underground grid connection of 103.1 hectares. The proposed solar farm will consist of the installation of a 40 year operation and subsequent decommissioning of a series of ground mounted solar photovoltaic (PV) panels, mounted on steel support structures, together with 1 single storey ESB control room, 12 electrical transformation enclosures, underground cabling, inverters, CCTV poles and cameras, deer type security fencing, existing site entrance from the L5529 road, access tracks, hardstanding area, landscaping and biodiversity measures and all associated ancillary development works, for the purpose of generating renewable energy electricity. The proposed solar farm is located in the townlands of Ballyroe and Dromin, Ballyhea, Charleville, County Cork. The proposed underground electricity grid connection is to be installed entirely under public roads from the proposed solar farm	Townlands of Ballyroe, Dromin, Ballynadridden, Ardnageehy, Rathnacally, and Clashganniv in Ballyhea, Charleville, Co. Cork	<100m from Grid Route

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
						at Ballyroe to Charleville 110kV ESB substation, which passes through the townlands of Ballyroe, Ballynadrideen, Ardnageehy, Rathnacally and Clashganniv in Ballyhea, Charleville, County Cork. A Natura Impact Statement will be submitted to the planning authority with this application.		
Wind Farm	X 552630 Y 620159	2016	166718	Conditional	Finalised	The installation of 458m of 20kV underground electricity cable, to be contained within ducting; ancillary marker posts; and all associated site development and reinstatement works. The works are required to connect the permitted Rathnacally Wind Farm (Pl. Reg. Nos. 12/4446 and 15/5525) to the existing Charleville 110kV ESBN substation.	Rathnacally and Garrynagranoge, Charleville, Co. Cork	<100m from Grid Route
Agricultural	X 550637 Y 618509	2016	165452	Conditional	Finalised	Construction of soiled water/effluent storage tank and walled silage pit with concrete apron	Cooliney, Ballyhea, Co. Cork	<200m from Grid Route
Commercial	X 525598 Y 651216	2017	171014	Conditional	Finalised	for the change of use from a ground floor office to a dental clinic consisting of surgery rooms ancillary offices, reception and waiting areas, staff room and WCs with signage, external plant housing and associated site works	Main Street, Foynes, Co. Limerick	<100m from N2
Residential	X 525506 Y 651268	2018	181097	Conditional	Finalised	construction of a rear extension to existing dwelling and to construct a pitched roof over existing front bay window and porch area and all associated works	Corigrig, Foynes, Co. Limerick	<100m from N2
Residential	X 540035 Y 651849	2016	16764	Conditional	Finalised	construction of a two storey extension to the side of an existing house together with all associated site works	Dromlohan, Kilcornan Co. Limerick	<150m from N3
Residential	X 540035 Y 651849	2021	21623	On Hold	Further Information	an independent living unit/granny flat attached to an existing dwelling	Dromlohan, Kilcornan, Co. Limerick	<100m from N3
Residential	X 540572 Y 652216	2016	161204	Conditional	Finalised	the construction of a dwelling house, entrance, wastewater treatment system and all ancillary site works (Ref No. of Outline Permission 13/374)	Boherboy, Kilcornan, Co. Limerick	<200m from N3
Residential	X 550635 Y 653763	2021	21757	Conditional	Finalised	demolition of two storey extension to rear and outbuildings, construction of single storey extension to rear and detached single storey domestic shed and covered patio to rear, new window to side(east) at ground floor level, new window to side(west) at ground floor level and two new windows to rear at first floor level and all ancillary site works	Ballybrown, Clarina, Co. Limerick	<200m from N3
Commercial	X 548119 Y 652334	2016	16747	Conditional	Finalised	the construction of (1) two extensions to the rear of the existing public house and alterations of the exterior and interior of the building (2) demolition of two store buildings to the rear and all associated site works	"De Bucket", Ferrybridge, Kildimo	<200m from N3

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Road Part 8	X 504168 Y 651980	2019	198000	Pending	New Application	the proposed improvement works will be carried out within the existing 60kph speed limit zone over a length of 750m between L6135 Curraghchase Junction and the L6125 Junction. The improvement works proposed comprise a reduction of the N69 carriageway width to 6.5m over the 750m length of the scheme with a footway installed on the southern side (school side) and kerbing and a grass verge on the northern side of the carriageway. The proposed works also include for the installation of LED public lighting on the northern side of the carriageway, road lining and signage as well as surface water drainage along both sides of the N69 carriageway and pavement improvement works. Accommodation works will be undertaken as required including improvement works in and around the community hub of the national school and GAA club grounds. The implementation of the works proposed will result in a rearrangement of the existing road network in the vicinity of the scheme. Changes to the existing road network will include the reduction of road width to 6.5m over a 750m length and the installation of a kerbed footway abutting the westbound carriageway and kerbing and a verge abutting the eastbound carriageway over the scheme length	Townlands of Killeen, Ballyvogue,, Cowpark, Curraghchase North and Boherboy,, Kilcornan, Co. Limerick.	<200m from N4
Residential	X 551655 Y 641711	2017	171104	Conditional	Finalised	1. demolish existing front porch. 2. demolish lean to garage to side. 3. demolish flat roof extension to rear. 4. construct new storey and a half extension to rear of existing dwelling. 5. carry out internal alterations to existing dwelling including all associated site services and works	Ballybrown,Clarina, Co. Limerick.	<200m from N4
Residential	X 550440 Y 653715	2017	17605	Conditional	Finalised	attic conversion and for the erection of a road side commercial sign for my business premises	Clarina Village,Clarina, Co Limerick	<200m from N4
Commercial	X 550545 Y 653654	2020	20748	Conditional	Finalised	amendments to planning permission 19/792. The amendments will provide for a revised building design and layout, reconfiguration of the retail sales and off-licence area, hot & cold food preparation areas, seating for on-site food consumption, all ancillary visitor toilets, and retail storage together with first floor increase to ancillary office/staff/storage areas. Permission is also sought for any amendments to previously approved site/parking and all associated site works.	O'Sullivan's Centra,Ballybrown,Clarina, Co. Limerick	<200m from N4
Residential	X 557652 Y 654270	2016	16452	Conditional	Finalised	the construction of a storey and a half type dwelling house, site entrance, boundary walls, waste water treatment system and associated site works.	Rosbrien, Co. Limerick	<200m from N6

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Residential	X 551161 Y 647489	2016	161200	Conditional	Finalised	construction of a single storey extension to the side of existing dwelling and all ancillary site works	Ballygeale, Patrickswell, Co. Limerick	<250m from N7
Residential	X 551898 Y 637830	2016	161065	Conditional	Finalised	for the construction of extension to existing dwelling house, incorporating minor changes to elevational treatment and all ancillary works.	Dohora,Banogue,Croom, Co. Limerick	<250m from N8
Agricultural	X 551996 Y 638140	2019	19116	Conditional	Finalised	the construction of a livestock shed with underground storage tanks, feeding area, dungstead, concrete yards and all ancillary site works	Dohora,Croom, Co. Limerick	<200m from N8
Agricultural	X 551876 Y 638135	2021	21631	Pending	New Application	construction of a poultry house, concrete apron, soiled water storage tank and all associated ancillary site works	Dohora,Croom, Co. Limerick	<200m from N8
Residential	X 554332 Y 619920	2015	155734	Conditional	Finalised	Construction of an extension and external porch and alterations to existing dwelling, construction of a new relocated site entrance to replace existing entrance, construction of a new roadside boundary wall with railings and replacement of the existing septic tank with proprietary treatment unit	Ballyhay Td, Ballyhea, Charleville, Co. Cork	<100m from N9
Commercial	X 554126 Y 619811	2015	156761	Conditional	Finalised	Development to modernise and extend internal office and staff facilities (totaling 218.12sq.m), at a site of 7.692ha, all contained within the building footprint of the existing permitted warehouse development. The proposed development consists of: a) The modernisation and extension of the existing Goods In Office area comprising: -The internal reconfiguration of existing ground floor staff welfare facility block; - The construction of a first floor mezzanine office extension (132.17sq.m) to existing office space to accommodate expanded open plan office space and an office; - The provision of new roof plant, incl. condenser units; and - The provision of 3 no. new windows to east elevation of existing permitted warehouse. b) The extension of the existing Transport and Goods Out Offices area comprising: - The replacement of the existing ground floor Transport Office with a new enlarged Ground Floor Transport Office (36.66.sqm); - The construction of a new first floor Goods Out Office (37.43sq.m) to accommodate an office and a meeting room above the existing ground floor staff welfare facility block; - The construction of a new access staircase and first floor walkway (11.86sq.m) to new first floor Goods Out Office; - The provision of new roof plant, incl. condenser units; -	Lidl Regional Distribution Centre, Ballyhay, Charleville, Co. Cork	<100m from N9

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
						The provision of 1 no. new window to west elevation of existing permitted warehouse. c) All associated site development works above and below ground level. Primary vehicular and pedestrian access to the development will be maintained from the existing site entrance from Local Road L1322.		
Commercial	X 553784 Y 619703	2021	215029	Further Information	On Hold	Retention for the office and toilet at the rear of the existing storage unit and planning permission to build a new pallet warehouse, loading bays, effluent treatment system, polishing filter and all associated site works.	Ballyhea, Ballyhay, Charleville, Co. Cork	<100m from N10.1
Residential	X 553579 Y 619593	2021	215141	Refused	Finalised	Retention of existing extension to side of dwelling, and for existing storage sheds. Permission for the construction of pitched roof in place of existing flat roof and for extension to side of existing dwelling. Also, permission for new septic tank and percolation area and all associated site works.	Ardnageehy, Ballyhea Ballyhay, Charleville, Co. Cork	<100m from N10.2
Agricultural	X 553511 Y 619594	2020	206020	Conditional	Finalised	Permission for retention of modifications to existing field entrance (increasing size of existing entrance) for the use for agricultural purposes.	Ballyhay, Charleville, Co. Cork	<100m from N10.2
Solar Farm	X552803 Y 616819	2020	204041	Conditional	Finalised	A 10 year planning permission for the development of a 102.76 hectare solar PV farm and 3.425 kilometre underground electricity grid connection (0.34 hectares) giving a total combined area for both the solar farm and underground grid connection of 103.1 hectares. The proposed solar farm will consist of the installation of a 40 year operation and subsequent decommissioning of a series of ground mounted solar photovoltaic (PV) panels, mounted on steel support structures, together with 1 single storey ESB control room, 12 electrical transformation enclosures, underground cabling, inverters, CCTV poles and cameras, deer type security fencing, existing site entrance from the L5529 road, access tracks, hardstanding area, landscaping and biodiversity measures and all associated ancillary development works, for the purpose of generating renewable energy electricity. The proposed solar farm is located in the townlands of Ballyroe and Dromin, Ballyhea, Charleville, County Cork. The proposed underground electricity grid connection is to be installed entirely under public roads from the proposed solar farm at Ballyroe to Charleville 110kV ESB substation, which passes through the townlands of Ballyroe, Ballynadridden, Ardnageehy, Rathnacally and Clashganniv in Ballyhea, Charleville, County Cork.	Townlands of Ballyroe, Dromin, Ballynadridden, Ardnageehy, Rathnacally, and Clashganniv in Ballyhea, Charleville, Co. Cork	<100m from N10.3

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Substation Electricity Cable	X 551123 Y 619019	2019	196817	Conditional	Appealed	A Natura Impact Statement will be submitted to the planning authority with this application. Consisting of: Installation of 4,387 metres of underground electricity cable between a proposed solar farm at Fiddane, Ballyhea, Charleville, Co. Cork and Charleville 110kV ESB Substation at Clashganniv, Ballyhea, Co. Cork to be installed entirely under public roads. The underground electricity cable passes through the townlands of Ardglass, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, County Cork. A Natura Impact Statement will be submitted to the Planning Authority with this application.	Ardglass, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy, Clashganniv, Co. Cork	<100m from N10.4
Residential	X 552213 Y 619384	2017	176925	Conditional	Finalised	The construction for a new dwelling house with domestic garage, entrance, wastewater treatment plant and percolation area with all associated site and ancillary works.	Farranshonikeen, Ballyhay, Charleville, Co. Cork	<100m from N10.6
Residential	X 550637 Y 618509	2016	165452	Conditional	Finalised	Construction of soiled water/effluent storage tank and walled silage pit with concrete apron.	Cooliney, Ballyhea, Co. Cork	<250m from N10.10
Wind Farm	X: 559596 Y: 616394	2013 & 2015	135885 154019	Conditional	Finalised	Constructed 6 turbine wind farm (150m tip)	Knockatalig, Co. Cork	8.6km east from Main Wind Farm Site
Wind Farm	X: 560447 Y: 617200	2011	114947	Conditional	Finalised	Constructed 14 turbine wind farm (150m tip)	Castlepook, Co. Cork	9.7km east from Main Wind Farm Site
Wind Farm	X: 541366 Y: 613338	2010	105791	Conditional	Finalised	Constructed 3 turbine wind farm (125m tip)	Kilberriherth, Co. Cork	9km south west from Main Wind Farm Site
Wind Farm	X: 529825 Y: 619950	2011	11165	Conditional	Finalised	Constructed 2 turbine wind farm (126m tip)	Kilmeedy, Co. Limerick	16km north west from Main Wind Farm Site
Wind Farm	X: 529825 Y: 619950	2012	127031	Conditional	Finalised	Constructed 14 turbine wind farm (150m tip)	Dromdeeven I & II, Co. Limerick	20km west from Main Wind Farm Site
Private Turbine	X: 529825 Y: 619950	2012	12281	Conditional	Finalised	Constructed single turbine (27m tip)	Woodfield, Dromcollogher, Co. Limerick	12km north west from Main Wind Farm Site

Development Name/Type	Coordinates (ITM)	Year	Planning Reference Number	Decision	Status	Description	Address	Distance from Project
Boolard Wind Farm	T1: X 548173, Y 619110 T2: X 548400, Y 619587	2012 2015 2017	125997 155521	Conditional	Finalised	Constructed single turbine (27m tip)	Boolard, Shinanagh, Clyderragh, Cloghanughera, , Killaree, Ardmore, Kiltass, Milltown,, Garrynagranoge, Ballypierce, Clashganniv,, Rathnacally, Charleville, Co Cork.	2.36km north west of Turbine 4
Rathnacally Wind Farm	T1: X 552056, Y 619858 T2: X 552373, Y 619918	2012 2015	124446 155525	Conditional	Finalised	Constructed 2 turbine wind farm (150.5 tip) and grid connection.	Rathnacally, Charleville, Co. Cork	2.27km north east of Turbine 1

Existing and Permitted Wind Farms Within 20km of the Main Wind Farm Site considered Cumulatively in Chapter 15: Landscape and Visual

Wind Farm Name	Number of Turbines	Distance and Direction from Proposed Development Site	Status
Boolard Wind Farm	2	1km southeast of site	Existing
Rathnacally Wind Farm	2	2.27km northeast of T1	Existing
Knockatalig	6	8.6km east	Existing
Castlepook	14	9.7km east	Existing
Kilberrihert	3	9km southwest	Existing
Dromdeeveen I & II	14	20km west	Existing
Kilmeedy	2	16km northwest	Existing