

Appendix 1.1

Cumulative Projects



Application No	PlanningAu	Developmen	De_Address	Date Received	Type	Application_St	Decision	DecisionDa	GrantDate
19732	Kildare County Council	The construction of an off-line motorway services station to include: (a) 8 No. island forecourt fuel area with canopy consisting of 16 No. fuel dispensers; (b) 2 No. island HCV facility with canopy consisting of 4 No. fuel dispensers; (c) 2 storey amenity building (1,656 sqm gross floor area) part double height at ground floor containing 1 No. shop (max. 100 sqm net floor space including off-licence area), food court at ground and first floor level to include restaurant/café and associated communal seating, 2 No. meeting rooms, toilet and baby changing facilities and storage areas; (d) Open aired yard/refuse area; (e) Outdoor seating and play areas; (f) Drive-thru facility to side and rear of amenity building; (g) New site entrance off the L81760; (h) 147 No. car parking spaces, 33 No. HGV parking spaces, 6 No. coach parking spaces, 11 No. motorcycle parking and 9 No. electric charge points; (j) Ancillary signage on the amenity building and 2 No. double sided totem signs, both illuminated and non-illuminated; (k) Underground fuel storage tanks and designated offset fill points; (l) New packaged effluent treatment system and associated percolation area; (m) All ancillary site development works and services including surface water drainage system, air/water service area, building signage, landscaping, boundary treatments and future access to remaining lands.	Mayfield,, Monaster	27/06/2019	Permission New Application	n/a	n/a	n/a	
16522	Kildare County Council	Install 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.	Drogheda Street DRI	20/05/2016	Permission Application Finali	Conditional	14/07/2016	08/09/2016	
17493	Kildare County Council	Installation of gas upgrading unit and gas pressurisation unit and associated site works in order to facilitate transport of renewable gas by HGV to grid entry point.	Green Generation Bi	02/05/2017	Permission Application Finali	Conditional	18/09/2017	27/11/2017	
18247	Kildare County Council	Development of a grid system services facility within a total site area of up to 1.95 hectares, to include 1no. TSO compound including 1no. single storey TSO electrical substation building and 1no. single storey customer substation, 1no. customer switchgear, electrical inverter /transformer station modules, containerised battery storage modules on concrete support structures, heating, ventilation and air conditioning units (HVAC units), access tracks and upgraded site entrance, associated electrical cabling and ducting, security gates, perimeter security fencing, CCTV security monitoring system, culverts and landscaping works and all associated ancillary infrastructure.	Porterstown and Kilt	09/03/2018	Permission Application Finali	Conditional	03/05/2018	11/06/2018	
161215	Kildare County Council	30 metre telecommunications structure (with headframe carrying antenna giving overall height of 32.8m), associated antennae and link dishes, associated equipment cabin, security fencing & access track. The development forms part of Vodafone Ireland Ltd's existing GSM, 3G and future 4G Broadband telecommunicaitons networks.	Lullymore, Kilpatrick	23/11/2016	Permission Application Finali	Conditional	26/01/2017	13/03/2017	

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16217	Laois County Council	Erect a 4.2MVA solar farm comprising photovoltaic panels mounted frames, 4 no. single storey inverter/transformer station, 1 no. single storey terminal station, 1 no. single storey electrical switchroom, security fencing, CCTV and all associated ancillary development works.	Derry More,, N	11/07/2016	Permission Application Final	Conditional		31/01/2017	06/03/2017
16404	Laois County Council	Erect 35.50sq. metres Photovoltaic (PV) solar panels on south facing panes of roof of dwellingouse and all associated site works.	Grange Upper,	12/08/2016	Permission Application Final	Conditional		26/09/2016	02/11/2016
16500	Laois County Council	Construct for 10 years a Solar PV Energy Development comprising installation of photovoltaic panels on ground mounted frames/ support structures; underground cabling and ducting; 2 no. invert/transformer station with 1 no. HV cabin; 1 no. communications and storage structure; 2 no. substations; perimeter (stock proof) security fencing (2m high, c. 7.43 hectares) CCTV security cameras; site access road, landscaping and all associated ancillary site development works. A temporary construction compound will also be provided.	Rathleague, Po	10/10/2016	Permission Appealed	Finacia	Conditional	23/02/2017	24/07/2017
16505	Laois County Council	Construct for 10 years a Solar PV Energy Development comprising installation of photovoltaic panels on ground mounted frames/ support structures; underground cabling and ducting; 3 no. inverter/transformer stations with 2 no. HV cabins; 1 no. communications and storage structure; 2 no. substations; perimeter (stock proof) security fencing (2m high, c. 13.91 hectares); CCTV security cameras; site access road; landscaping and all associated ancillary site development works. Temporary works will also include a construction compound and passing-bay adjoining the existing access road.	Sronagh, Mour	12/10/2016	Permission Appealed	Finacia	Conditional	27/02/2017	20/07/2017
16536	Laois County Council	Erect a 4.2MVA solar farm comprising photovoltaic panels on ground mounted frames, four single storey inverter/transformer stations, one single storey terminal station, one single storey electrical switchroom, security fencing, CCTV and all associated ancillary development works.	Acragar, Moun	28/10/2016	Permission Application Final	Conditional		21/12/2016	30/01/2017
17532	Laois County Council	Construction operation and decommissioning of a photovoltaic solar farm comprising photovoltaic panels on ground mounted frames, inverter stations, 1 no DNO/ Customer substation, switchgear substations, field transformers, auxiliary transformers, GRP cabinet, monitoring house communications building, single storey storage shed, battery containers, transformer containers, WC, fencing, temporary construction compound, access tracks, cabling, CCTV cameras, landscaping, creation of a new access and all associated ancillary development works.	Bigbog, Coolna	02/10/2017	Permission Application Final	Conditional		19/06/2018	30/07/2018
16477	Laois County Council	Infill lands with material consisting of clean, uncontaminated soil and stones. Permission is also sought for the temporary installation of a portable toilet for the duration of infilling. An Article 6(3) of the Habitats Directive Screening Appropriate Assessment, Natura Impact Statement and Environmental Impact Statement have been prepared in respect of the proposed development. Subsequent to planning, a waste facility permit will be sought from Laois County Council's Environment Section for the duration of the infilling process.	Kilbride, Portar	22/09/2016	Permission Application Final	Conditional		14/11/2016	15/15/2016
17128	Laois County Council	To continue use of an existing lattice type meteorological mast 80m high and associated instruments to measure local climatic conditions for a period of 2 years.	Ballinteskinn,, St	13/03/2017	Permission Application Final	Conditional		30/05/2017	03/07/2017
15248	Laois County Council	Construct end of life vehicle and waste metal processing facility along with the internal and external storage of such materials on site. The planning application will also include the following: 1. erection of processing, office and sales building; 2. erection of weighbridge and weighbridge office; 3. erection of boundary treatments; 4. erection of signage; 5. provision of concrete, and hard core areas; 6. new site entrance and all associated ancillary site development works. The development is subject to an application to Laois County Council for a waste permit.	Clonminam Ind	06/07/2015	Permission Application Final	Conditional		27/07/2016	31/08/2016
15403	Laois County Council	Increase waste acceptance at the existing waste transfer and processing facility from the current permitted 40,000 tonnes per annum to 65,000 tonnes per annum; and the installation of an integrated constructed wetland (ICW) comprising 2 no. wetland cells of c. 70m2 each. Activities associated with the development will include sorting, bulking, separation, segregation, bailing and temporary storage of non-hazardous municipal and C&D wastes prior to movement offsite for further treatment.	Kyletalesha & K	02/10/2015	Permission Application Final	Conditional		21/03/2016	25/04/2016

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16401	Laois County Council	Retain change of use from agricultural building to garage/car farm machinery repair facility, and all associated ancillary works.	Raheennahowr	10/08/2016	Retention	Application Final	Conditional	26/10/2016	28/11/2016
18321	Laois County Council	Change use and modification of bay 4 of existing building from agricultural to commercial for installing a Battery Storage Facility including dry type batteries, inventers, transformers, switchgear and other ancillary plant. Also the provision of access route to rear of existing building requiring alteration to rear boundary. (1)change of use from previous manufacturing premises to storage of motor vehicle, crashed , mobile & immobilised and end of life vehicles with 24 hour access. (2) Incorporating area of vehicle dismanteling and recycling with associated collection points, incorporation inspection area, secure storage and didmantatling areas for th euse of An Garda Siochana, Health & Safery Authority, Revenue / Customs, An Garda Siochana, Ombudsman and other government agencies all with 24 hour access. (3) Internal storage for 200 motor vehicles , including crashed , mobile and immobilised and end of life vehicles with 24 hour access. (4) Compound storage for 280 vehicles with 24 hour access. a waste facility application in relation to this site will be submitted separately to Laois County Council. The following waste types will be applied for: 13 Oil waste and waste of liquid fuels (except edible oils and those in chapters 5, 12 & 19). 13 01 Waste hydraulic oils 13 01 01* Hydraulic oils, containing PCB's. 13 02 Waste engine, gear and lubricating oils 13 02 08* Other engine , gear and lubricating oils. 13 07 Waste of liquid fuels 13 07 01* Fuel oil and diesel 13 07 02* Petrol. 16 Waste not other specified in the lists. 16 01 End of life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end of life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08). 16 01 03 End of life tyres 16 01 04* End of life vehicles 1601 06 End of life vehicles, containing neither liquids non hazardous components. 16 04 14* Antifreeze fluids containing dangerous substances. 17 Ferrous metals 16 01 18 Non- Ferrous metals 16 01 20 Glass 16 06 batteries and accumulators 16 06 01* Leads acid batteries. 17 Construction and demolition waste (including excavated solid from contaminated sites). 17 04 Metals (including their alloys) 17 04 01 Copper, bronze brass 17 04 05 Iron and Steel. 19 Wastes from Waste Management Facilities, off site waste water treatment plants and the preparation of waste intended for human consumption and waste for industrial use. 19 12 02 Ferrous metal 19 12 03 Non-ferrous metal. Please note : Any waste marked with an asterisk (*) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that directive unless Article 1(5) of that directive applies. Planning permission will be sought for the retention of the perimeter fence.	Dooary,, Ballyr	24/05/2018	Permission Application Final	Conditional	01/02/2019	06/03/2019	
18474	Laois County Council	Retain change of use of premises from car garage / car sales facility to a waste facility for the dismantling and depollution of end of life vehicles and other scrap metals, retention of site boundaries & site layout as constructed to include ancillary site services.this application will require a waste permit	Clonminam Ind	03/08/2018	Permission Application Final	Conditional	08/02/2019	11/03/2019	
18492	Laois County Council		Long Road,, Vic	09/08/2018	Retention	Application Final	Conditional	29/04/2019	10/06/2019

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18502	Laois County Council	Develop a Cheese Manufacturing Facility within the Togher National Enterprise Park. The development will comprise of a main building which will facilitate a cheese blending process, an office block for admin. and technical support staff and external buildings to service the proposed facility. The development will generally consist of the following elements, the main Production Building (area = 15,400 sq m) including 5 no external dock loading bays, 14.5 m high glazed front entrance porch, roof mounted equipment and screening for same; external raised condenser platform and equipment, external yard slab area, wastewater pre-treatment plant (WWTP), contractors compound (area = 4,500 sq m), waste storage building 1; Waste storage building 2; Car park for staff and visitors (94 spaces); trailer parking area (6 spaces); external material storage building; Chemical compound; bike shed; bin store; security barrier; security perimeter fence; process cleaning equipment area with associated bunded tanks; ESB Building; transformer house; water treatment building and water storage tank; sprinkler building and sprinkler water storage tank; 2 no services pipe bridges; firewater retention system; surface water, foul and effluent drainage; storm water retention and oil/fuel separator; access roads; equipment storage yard area/Contractors compound; building and site corporate signage; external lighting; landscaping; 4.0 m high landscaped berm; waste compactor; 4.0 m wide fire tender access track and all associated site and ancillary works. An Environmental Impact Assessment Report (EIAR) formerly known as an EIS has been prepared as part of the Planning Application. An Industrial Emissions licence application will be submitted to the EPA for the proposed development.	Togher Nationa	13/08/2018	Permission Application	Final	Conditional	28/09/2018	06/03/2019
18639	Laois County Council	Demolish the former Civil Defence building and two associated storage buildings to its side and rear, and the demolition of a single storey toilet extension to the side of the former Methodist Chapel/ICA Hall (RPS No.164) and demolition of the party wall between the Former Civil Defence site and the existing car park and the erection of a part single storey/part two storey community use facility comprising of meeting rooms and related back up spaces, attached and internally connected to the Former Methodist Chapel/ICA Hall (RPS No.164), a storage and boiler house building and the enlarging and refurbishment of the existing car park and associated site works	Patrick St , Dur	22/10/2028	Permission Application	Final	Conditional	08/02/2019	
1923	Laois County Council	Construct a blending and packaging facility, an electrical sub-station building, utilities area including sprinkler tank, tank farm and utility equipment, site infrastructure including car parking, 2 No. vehicular entrances, circulation roads, boundary fencing and all associated site works.	IDA Business P	23/01/2019	Permission Application	Final	Conditional	05/03/2019	08/04/2019
19328	Laois County Council	Upgrade the existing wastewater treatment plant to a capacity of 900 PE incorporating: selector tank, twin aeration tanks, three final settlement tanks, flow splitting chambers, sludge return and wastage pumps, air blowers, sludge storage tank, interconnecting pipework and ducting, welfare facilities and internal access road extensions. A Natura Impact Statement (NIS) has been prepared in respect of the proposed development and will be submitted to the planning authority with the planning application.	Ballyroan, Co. L	10/06/2019	Permission	Further Informat	n/a	n/a	n/a
14418	Laois County Council	Install EPS Bison Wastewater Treatment System and soil polishing filter to serve existing dwelling and all ancillary site works.	Luggacurren,, C	12/12/2014	Permission Application	Final	Conditional	09/02/2015	16/03/2015
17672	Laois County Council	Install a 3m high 'lamp post' style relief vent stack servicing the existing below ground natural gas pressure reduction unit wiht all ancillary services and associated site works.	Colliers Lane Di	13/12/2017	Permission Application	Final	Conditional	06/02/2018	14/03/2018
1735	Laois County Council	Install a 3m high 'lamp post' style relief vent stack serving the existing below ground natural gas pressure reduction unit with all ancillary services and associated site works.	Kilminchy Place	27/01/2017	Permission Application	Final	Conditional	16/03/2017	09/04/2017

Applicator	PlanningAu	Developmen	De_Addres	Date Receive	Type	Application Decision	DecisionDa	GrantDate
1711	Offaly County Council	A 10 year permission (to construct development). the development will consist of a solar farm comprising: the installation of photovoltaic panels on ground mounted frames in rows on a site of c. 17.7 hectares, a single storey esb terminal station, a single storey switchgear enclosure as well as 2 no. single storey storage containers, 8 no. single storey inverter stations, ducting and underground electrical cabling, perimeter fencing, 10 no. mounted cctv cameras, use of existing access from the r420 and provision of internal access tracks, and all associated site development (including minor re-profiling to existing levels of c. 0.5 hectares), and landscaping works.	ballyduff tc	16/01/2017	Permission Application	Conditiona	28/07/2017	31/08/2017
17275	Offaly County Council	A solar farm comprising solar photovoltaic (pv) panels laid out in arrays on ground mounted frames on a site of approximately 12.63 hectares (ha). The proposed solar pv farm known as portarlinton solar pv farm will include 4 no. Single storey inverter units, 1 no. Single storey esb terminal substation, customer substation, 2 no. Steel storage containers, security fencing, 10 no. Cctv, and all associated ancillary development works including beneficial landscape planting, temporary internal construction access track to the on-site esb terminal substation and permeable internal access tracks. Vehicular access to the development site will remain via the existing entrance off the r420. Esb operational access to the on-site terminal substation will be provided via the existing site entrance off the kilmalogue downs.	Shanderry	25/07/2017	Permission Application	Conditiona	16/07/2018	20/08/2018
14188	Offaly County Council	10 year permission for the erection of 9 no. wind turbines each with a hub height of up to 100m, a typical rotor diameter of 103m (overall maximum tip height of up to 150m) and all associated site development works including 1 no. temporary site compound area (697 sq.m), turbine foundations, crane hardstandings, access tracks, underground cabling, upgrades to existing site entrance off the n62, the construction of a 38kv switch room and control facility (94 sq.m) with associated equipment and compound area enclosed by a 2.4m high palisade fence. the application is accompanied by an environmental impact statement (e.i.s.) and a natura impact statement (n.i.s.).	Lands At St	14/08/2014	Permission Application	Conditiona	07/10/2014	
16399	Offaly County Council	The erection of a guyed wind monitoring mast, with instruments, up to 100m in height. The purpose of the proposed mast is to access the suitability of the company's adjacent lands for wind farm development.	Garryhinch	12/12/2016	Permission Application	Conditiona	13/02/2017	23/03/2017
17335	Offaly County Council	Up to 12 no. Wind turbines with a tip height of up to 169 meters and all associated foundations and hardstanding areas; a recreational amenity trail, associated signage, parking and recreational facilities; 1 no. On-site electrical substation; 1 no. Temporary construction compound; all associated underground electrical and communications cabling connecting the turbines to the proposed on-site electrical substation; provision of new site access tracks and upgrading of existing access tracks and associate drainage; excavation of 1 no. Borrow pit; works to facilitate the delivery of turbines along the local road l1013 within the townland of ballychristal to include temporary alterations to roadside boundary and the laying of temporary surfacing and the permanent setback of a roadside boundary wall; tree felling and all associated site development works. Permission is sought for a period of 10 years and an operational life of 30 years from the date of commissioning of the entire wind farm. An environmental impact assessment report (eiar)/environmental impact statement (e.i.s.) and a natura impact statement (n.i.s.) have been prepared in respect of the proposed development.	Moanvane,	07/09/2017	Permission Application	Conditiona	18/04/2018	
18513	Offaly County Council	continued use of an existing guyed wind monitoring mast, with instruments, 100m in height on its lands at esker more, co. offaly for a further period of three years. the purpose of the mast is to assess the suitability of the company's adjacent lands for wind farm development. previous planning application reference number: pl13/161.	Esker More	19/11/2018	Retention	Application	Conditiona	22/01/2019 28/02/2019

Application Number	Planning Authority	Development Description	De_ Address	Date Received	Type	Application Decision	Decision Date	Grant Date
15204	Offaly County Council	A new high density polyethylene (hdpe) reprocessing and pellet manufacturing facility. the building will consist of a single storey structure c. 1,400m2 and c. 9m high for the manufacture of hdpe pellets by reprocessing end-of-life recyclable hdpe materials (plastic cartons, containers, etc.). the building will include: welfare and administration areas, along with storage areas for raw and processed materials, a hdpe reprocessing line and hdpe pellet manufacturing area. externally the installation of an external waste water treatment plant c. 6m high, a c. 2,150m2 concrete pavement, access road, 5 no. car parking spaces, external signage, the installation of a water-oil separator, rain water harvester, site drainage including a sump area, site fencing, security gates, and associated landscaping and connections to public services are proposed. all access to and from the site will be by way of the existing access road to the r421 (arden road). the overall site area is 1.1 ha.	The Townlands	21/07/2015	Permission Application	Conditional	14/09/2015	27/10/2015
16273	Offaly County Council	Infilling of lands with material consisting of clean, uncontaminated soil and stones (subsoil and topsoil). permission is also sought for one temporary onsite portable toilet and one temporary portacabin which will serve as an office for the duration of the infilling process. an article 6(3) of the habitats directive screening for appropriate assessment has been prepared in respect of the proposed development. subsequent to planning, a waste facility permit will be sought from offaly county council's environment section for the duration of the infilling process	Ballydown	30/08/2016	Permission Application	Conditional	21/04/2017	17/07/2017
17240	Offaly County Council	Development at our existing materials recovery facility at bogtown, cappancur, tullamore, county offaly. the development will consist of an increase in the amount of waste accepted annually from 60,000 tonnes to 80,000 tonnes. the proposed increase does not require the construction/provision of any new buildings/structures or any alteration to the current site layout and operations. the development will require a review of the industrial emissions licence granted by the environmental protection agency. an environmental impact statement (e.i.s.) will be submitted to the planning authority with the application	Material Reception	04/07/2017	Permission Application	Conditional	06/12/2017	15/01/2018
17484	Offaly County Council	Infilling of lands with material consisting of clean, uncontaminated soil and stones and for the crushing of concrete on a sporadic basis (which is not for infilling on the site) prior to its removal for reuse. permission is also sought for one temporary onsite portable toilet and one temporary portacabin which will serve as an office for the duration of the infilling process. an article 6(3) of the habitats directive screening for appropriate assessment report has been prepared in respect of the proposed development. subsequent to planning a waste facility permit will be sought from offaly county council environmental section for the duration of the infilling process	Glaskill, Mullinacree	08/12/2017	Permission Application	Conditional	08/02/2018	22/03/2018
ex16010	Offaly County Council	PI2/10/307 as granted by an bord pleanaola ref. PI19.238420 for permission for development which comprises or is for the purposes of an activity requiring an integrated pollution prevention or control licence or a waste licence. The development will be an industrial facility to accommodate an advanced pyrolysis system for the recovery of energy from biomass and waste. The approximate output will be 6 megawatts of renewable electricity for export to the national grid in line with ireland's climate change strategy and 5 megawatts of heat. The facility will consist of an enclosed fuel recovery area, a reception and pre-treatment area, pyrolysis area, engine areas, office and staff facilities, ancillary accommodation and maintenance areas all enclosed in one building. The building will have 19m and 30m high vent stacks. Externally the site will accommodate vehicle movement areas, staff and visitor carparking, oil and water storage tanks and flare stack. The site will be provided with an effluent treatment system and percolation area and all additional landscaping and associated site works. The site will be accessed via a new entrance on to the offaly county council road to derryclure landfill. This road will be upgraded along with the access to the n80 including all associated site works. A new substation and switchroom structure will be located on this access road. An eis will be submitted to the planning authority with the application.	Derryclure,	20/04/2016	Extension of Application	Conditional	22/04/2016	
1526	Offaly County Council	A wind farm service building incorporating machine servicing, workshop, storage and staff facilities, together with offices, reception area and a multi-purpose meeting and presentation room. the development will also include a marshalling yard, 20 car park spaces, 1 coach parking space, bunded oil storage, a zero discharge willow facility for full effluent management, water well and pumphouse, landscaping and associated site development works.	Drumcaw	09/02/2015	Permission Application	Conditional	31/03/2015	11/05/2015

Application Number	Planning Authority	Development Description	De_ Address	Date Received	Type	Application Decision	Decision Date	Grant Date
17194	Offaly County Council	Development of an energy storage facility designed to provide 100mw of system support services to the electricity grid. the development will consist of (i) a single storey metal clad building (floor area 4,536sqm) to a height of 9m, which will include: reception area, offices, battery room, workshop area, welfare facilities and ancillary services rooms, (ii) perimeter secured switchyard containing 110kv substation, mv switchgear room (floor area 100sqm) to a height of 4m, control building (floor area 200sqm) to a height of 4m, (iii) all ancillary development, including perimeter fencing and landscaping, security hut at site entrance, car parking, access roads, all civil engineering works for the disposal of foul and surface water, lighting and site entrance with connection to the existing R357. A grid system services facility within a total site area of 0.84 hectares, to include 1 no. single storey electrical substation building, 1 no. customer switchgear container, 17 no. 2mw electrical inverter/transformer station modules (skids), 10 no. containerised battery storage modules on concrete support structures, 40 no. heating, ventilation and air conditioning units (hvac units), access tracks and upgraded site entrance, associated electrical cabling and ducting, security gates and perimeter security fencing, cctv security monitoring system, landscaping works and all associated ancillary infrastructure.	Lumcloon,	01/06/2017	Permission Application	Conditional	25/07/2017	30/08/2017
18167	Offaly County Council	Alterations to development of an energy storage facility designed to provide 100mw of system support services to the electricity grid at lumcloon, cloghan, co. Offaly in lieu of that granted under planning permission pl2/17/194. Proposed alterations consist of; (i) provision of open area battery energy storage system (bess) compound (area of 6,200 sqm) containing battery and control system enclosures in lieu of the approved single storey main building (floor area of 4,536 sqm), (ii) alterations to the approved switchyard containing the proposed 110kv substation which will include (a) connection to the existing electricity network in lieu of that approved, (b) increase in the size of the control building (floor area 375 sqm) in lieu of that approved (floor area 200 sqm), and (c) provision of a diesel generator and transformer adjacent to the control building, (iii) increase in size (630 sqm), location and internal layout of switchgear building in lieu of that approved (100sqm), and (iv) provision of 110kv transformer in lieu of mv substation (100 sqm), and (v) and all associated site works.	Derrynagal	16/04/2018	Permission Application	Conditional	10/07/2018	14/08/2018
1955	Offaly County Council	Install a 3m high 'lamp post' style relief vent stack serving the existing below ground natural gas pressure reduction unit with all ancillary services and associated site works.	Electricity C	15/02/2019	Permission Application	Conditional	04/04/2019	07/05/2019
1818	Offaly County Council	Install a 3m high 'lamp post' style relief vent stack serving the existing below ground natural gas pressure reduction unit with all ancillary services and associated site works.	Ballin Ri Di	18/01/2018	Permission Application	Conditional	21/03/2018	24/04/2018
1819	Offaly County Council	Install a 3m high 'lamp post' style relief vent stack serving the existing below ground natural gas pressure reduction unit with all ancillary services and associated site works.	Cormac Str	18/01/2018	Permission Application	Conditional	12/03/2018	24/04/2018

Appendix 1.2

Curricula Vitae





Dr. Elaine Bennett

Senior Scientist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Elaine is a Senior Scientist and Project Manager with Fehily Timoney. Elaine has a PhD in Plant Ecology and a BSc in Biological Science from University College Cork and a Diploma in Environmental Impact Assessment. Elaine works in the Environment and Energy Department of Fehily Timoney and is experienced in project managing and coordination of Environmental Impact Assessment Reports, Environmental Reports, Ecological Assessments and Appropriate Assessments.

Elaine has excellent experience in the identification of constraints to development and the production of high-quality planning applications and associated documentation for environmentally sustainable and buildable infrastructure projects.

Previous EIAR and Planning Application Experience

- **Dernacart Wind Farm (Statkraft) (2019 – ongoing).** Project Manager and EIA coordinator for the EIAR, NIS and planning application for the proposed Dernacart Wind Farm. This application consists of eight turbines with a tip height of up to 185m, near Mountmellick in Co. Laois. The proposed development also includes access tracks, substation, temporary compounds, MV and HV cabling as well as minor alterations to the public road for the delivery of turbines.
- **Drehid Wind Farm (Statkraft) (Ongoing – FI Stage)** Project manager and coordinator for the EIAR and NIS for the proposed Drehid wind farm. This application comprised of 12 turbines with a tip height of up to 169m, near Johnstown Bridge, Co. Kildare. The proposed development also includes access tracks, substation, temporary compounds, MV and HV cabling as well as minor alterations to the public road for the delivery of turbines. A recreational amenity trail was also proposed. The site consists of agricultural lands and forestry underlain by peat.
- **South Kerry Greenway (Kerry County Council) (2018).** Project manager for the EIAR of the 32km proposed greenway in Co. Kerry. Elaine is the environmental coordinator for the 32km South Kerry Greenway, which is currently being assessed by An Bord Pleanála. This involved liaising with the client, stakeholders and sub-consultants; the review of technical reports, budget management and programme management. The project will provide a sustainable tourism product, capitalising on the beautiful scenery of the area and will be accessible to all users including families and the elderly.
- **Moanvane Wind Farm (Element Power) (2017).** Coordination of EIS, NIS and planning application for a proposed 12-turbine wind farm in Co. Offaly. This application comprised the proposed erection of 12 turbines with a tip height of 169m near Cloneygowan and Portarlinton, County Offaly. The proposed development also includes access tracks, substation, temporary compounds as well as minor alterations to the public road for the delivery of turbines. The EIAR also included an assessment of the proposed grid connection to the existing 110kV substation at Mountlucas, Co. Offaly. A significant element of the proposed development is the 'Moanvane Wind Farm Recreational Amenity Trail', which will consist of a looped trail c. 6 km in length which will be open to the public as a walkway and cycleway. The site contains an area of relatively flat farmland with areas of cutover peat bog and coniferous forestry. The majority of turbines are underlain by peat.

Key Information

Qualifications

PhD in Plant Ecology, University College Cork. *"The Status, Ecology and Conservation of *Tuberaria guttata* (L.) Foureau in Ireland*

BSc (First Class Honours). Biological Science, University College Cork

Diploma (Environmental Impact Assessment)

Professional Memberships

Chartered Institute of Ecology and Environmental Management

Employment History

September 2016 – Present

Fehily Timoney & Company, Cork
Senior Scientist and Project Manager

2015 – 2016

Atkins
Senior Environmental Consultant

2011 - 2014

EirGrid
Senior Ecologist

2007 - 2011

Mott MacDonald Ireland Ltd.
Ecologist and Environmental Scientist

2007

White Young Green
Ecologist



Dr. Elaine Bennett

Senior Scientist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

- **Derrysallagh Grid Connection (Derrysallagh Wind Farm Ltd.) (2018).** Coordination of remedial EIAR/EIS for the partly constructed grid connection works and preparation of planning applications and EIARs/EISs for outstanding grid connection works.
- **Raragh Cable (Raragh Development Ltd.) (2017).** Environmental coordinator of EIS and preparation of ecological impact assessment and Stage 1 Screening for Appropriate Assessment of the proposed cable development between the permitted Raragh Wind Farm and the electricity substation at Kingscourt, Co. Cavan.
- **Killarney Quarry (M.F. Quirke and Sons) (Ongoing).** Project manager and environmental coordinator for the EIAR for the continuance of use of an existing quarry and proposed extension in Killarney, Co. Kerry.
- **Ballymoney Solar Farm (BNRG Renewables Ltd. (2018 – 2019).** Planning application and ER coordinator for the Environmental Report supporting a planning application for a proposed 10MW solar farm in Co. Wicklow.
- **Carragraigue Solar Farm Extension (BNRG Neoen Holdings Ltd.) (2018).** Project Manager and environmental coordinator for planning application including Planning and Environmental Report for a solar farm extension in Carragraigue, Co. Cork.
- **Derragh Substation (Enerco) (2017).** Coordinator of the planning application with Environmental Report and Stage 1 Screening for Appropriate Assessment of a proposed new substation for Derragh Wind Farm.
- **Johnstown North Solar Farm (BNRG) (2018).** Environmental coordinator for the Environmental Report supporting a planning application for a proposed 20MW solar farm in Co. Wicklow.
- **Wicklow Solar Farm (BNRG Renewables Ltd.) (2016).** Ecological impact assessment including habitat and protected species assessment of the proposed solar farm near Rathnew in Co. Wicklow. A Stage 1 Screening for Appropriate Assessment was also conducted to examine the potential for impacts on European Sites.
- **Bandon Waste Water Treatment Plant Upgrade (Irish Water) –** Environmental project manager for the upgrade of Bandon Waste Water Treatment Plant. Responsible for procurement of specialists, coordination of assessments and reporting including EIA screening, Screening for Appropriate Assessment, invasive species assessment, landscape and visual, cultural heritage, noise and vibration, air quality and odour.
- **Cork Lower Harbour EIS (80,000PE) (Cork County Council) –** Co-preparation of the EIS for a new 80,000 PE WWTP and pipeline infrastructure. Responsibilities included the review of sub-consultants' technical reports and preparation of the following EIS chapters: Flora and Fauna, Water Quality and preparation of Socio-Economics (Human Beings & Material Assets) chapters. Received consent from An Bord Pleanála under Strategic Infrastructure without the requirement for an Oral Hearing.

Previous Appropriate Assessment Experience

- **Cúil na Móna (Bord na Móna).** FT prepared a planning application, EIAR, Stage One Screening Report for Appropriate Assessment and a NIS for a 80,000 tpa renewable gas facility at Cúil na Mona, Portlaoise, Co. Laois. The proposed development area totals 17.34 Ha and comprised of a renewable gas facility, external road upgrades and internal site access road. Elaine managed the ecological impact assessment, Stage 1 AA Screening and NIS.
- **Strategic Infrastructure Development (SID) Application for Proposed Development at Knockharley Landfill -** Elaine carried out a Stage 1 Screening for Appropriate Assessment and Natura Impact Statement for the proposed development at Knockharley landfill to support the SID application.
- **Wicklow Solar Farm (BNRG Renewables Ltd.).** Ecological impact assessment including habitat and protected species assessment of the proposed solar farm near Rathnew in Co. Wicklow. A Stage 1 Screening for Appropriate Assessment was also conducted to examine the potential for impacts on European Sites.
- **EirSpan - Sligo and Leinster Bridges Maintenance Works (NRA) –** Stage 1 Screening for Appropriate Assessment of maintenance works on bridges in Sligo (51 bridges) and Leinster (8 bridges). Desktop assessment and risk assessment of the proposed works with reference to the qualifying interests and special conservation interests of Natura 2000 sites in proximity to the proposed works.



Dr. Elaine Bennett
Senior Scientist

- **Cappamore and Caherconlish Appropriate Assessments (Limerick County Council)** - Appropriate assessments were conducted for waste water discharges from Cappamore and Caherconlish WWTPs. The discharge from Cappamore WWTP is to the Mulkear River which forms part of the Lower River Shannon SAC and the discharge from Caherconlish WWTP is to the Groody River which discharges into the Lower River Shannon SAC.
- **Rathvilly and Hacketstown Appropriate Assessments (Carlow County Council)** - Appropriate Assessments for waste water discharges from the proposed upgraded WWTPs at Rathvilly and Hacketstown. The discharge from Rathvilly WWTP is to the River Slaney and the discharge from Hacketstown WWTP is to the River Derreen. Both discharges are to the Slaney River Valley SAC.
- **Annaghroe and Knockaginny Bridges Appropriate Assessment (Monaghan County Council)** - Conducted an ecological assessment (habitat mapping and botanical assessment) and appropriate assessment for the reinstatement of two cross-border bridges at Annaghroe and Knockaginny. The original bridges, which provided cross-border access across the River Blackwater between Counties Monaghan and Tyrone, were removed in the 1950s and 1970s.
- **Grand Canal Scheme (Irish Water)** – Stage 1 Screening for Appropriate Assessment of a proposed sewerage scheme at the Grand Canal, Dublin. The works to be assessed new foul and storm sewers for the proposed development at the eastern end of the Northern Quay of Grand Canal Dock in Dublin City Centre. These proposed sewers will tie in with newly existing development on the western end of the Northern Quay of Grand Canal Dock. It has also been proposed that an additional watermain will be installed during the works. It is proposed to install all pipes within the public road in a one stepped depth trench.
- **Stage 1 Appropriate Assessment of Drainage Works (Tipperary County Council)** – Stage 1 Screening for Appropriate Assessment of proposed drainage works in seven areas within Co. Tipperary. The drainage works comprised dredging river channels clear of recent silt deposits, flood debris and fresh vegetation by a tracked excavator working in the direction of flow so as to minimize impacts on the downstream aquatic environment.
- **Waterford City Wastewater Discharge Appropriate Assessment (Waterford City Council)** - An Appropriate Assessment was conducted for the effluent discharge from the newly constructed wastewater treatment plant in Waterford City. The appropriate assessment was required as the treated effluent from the wastewater treatment plant discharges into the Lower River Suir candidate special area of conservation (cSAC).
- **Youghal Main Drainage (Dunn's Park Overflow Pipeline) (Irish Water)** – Stage 1 Screening for Appropriate Assessment of proposed overflow pipeline from Dunn's Park pumping station. Natura 2000 sites of relevance were River Blackwater (Cork/Waterford) SAC and Blackwater Estuary SPA.
- **Spa Bridge and Killeen Bridge, Co. Laois (Laois County Council)** – Stage 1 Screening for Appropriate Assessment of emergency maintenance works at Spa Bridge and Killeen Bridge, Co. Laois.
- **M11 Waste Facilities (M11 EJV)** – Biodiversity assessments and Stage 1 Screening for Appropriate Assessments of five proposed waste facilities in Co. Wexford as part of the M11 scheme.

Other Developments

- **Center Parcs Feeder Main (Gas Networks Ireland).** Environmental coordinator of Environmental Report for the proposed gas pipeline in Co. Longford.
- **Newry Bypass - Ecological Design and Mitigation (Lagan Ferrovial JV)** - Consultation with the Environment and Heritage Service in Northern Ireland was required during the design and development of mitigation measures for bats, otters, kingfisher and badgers. Pre-construction surveys were undertaken for protected species and mitigation measures designed to minimise impacts on these species including mammal passes, artificial otter holts and artificial bat roosts. Surveys for invasive species (Japanese Knotweed and Giant Hogweed) were also undertaken and management plans developed. Method statements were prepared for the works and approved by the NIEA (formerly EHS).



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- **N11 / N25 Oilgate to Rosslare Constraints and Route Selection Study (Wexford County Council)** - Preparation of various chapters for the constraints study: flora and fauna; water quality; soils, geology and hydrogeology; landscape and visual. Coordination of flora and fauna assessments for a route selection report for the 26km N11/N25 Oilgate to Rosslare Road Scheme. Conducted habitat mapping and botanical assessment of the 26km scheme. The scheme will involve a crossing of the Slaney River Valley SAC and the Wexford Harbour and Slobbs SPA.
- **N69 Listowel Bypass Route Selection Report (Kerry County Council)** - Ecological surveys and habitat mapping were undertaken along each of five potential route options. Each of the five options involves a crossing of the Lower River Shannon SAC.
- **N21 Adare to Abbeyfeale Route Selection Report (Limerick County Council)** - The project involved detailed consultation with NPWS, which centred upon a number of ecological sensitivities in the study area including the protected lesser horseshoe bat and hen harrier species.
- **Combined Cycle Gas Turbine Power Plant EIS (Bord na Mona)** - As part of an EIA for a proposed power plant and associated pipeline infrastructure, a habitat survey and mapping to level III of Fossitt (2000) was conducted at the site and along the proposed pipeline infrastructure.
- **Owenmore Open Cycle Gas Turbine (OCGT) EIS (Constant Energy)** - A habitat assessment of the site was conducted to level III of the Fossitt (2000) habitat classification system. The survey also included a protected flora survey of the site due to the presence of lowland blanket bog within the site and records for protected species in the vicinity of the site. Otter and badger surveys were also conducted, and mitigation developed for the minimisation of impacts on these protected species.
- **Cappoquin Waste Water Treatment Plant (Waterford County Council)** - A survey for the protected species Opposite Leaved Pondweed (*Groenlandia densa*) was undertaken at the location of the proposed effluent outfall pipe into the River Blackwater (SAC). The species had been recorded a number of years previously within the catchment.
- **Preliminary Flood Risk Assessment (PFRA) for Ireland - Flood Vulnerability Assessment of Natura 2000 Sites. Office of Public Works (OPW)** - The Preliminary Flood Risk Assessment is a high level flood risk assessment to identify areas of significant potential risk (ASPRs) in order to identify which areas are appropriate for study in the OPW's catchment flood risk management studies. As part of the PFRA we conducted a flood vulnerability assessment of Natura 2000 Sites which involved an initial assessment of the vulnerability of European conservation designated sites to flooding. Special Areas of Conservation and Special Protected Areas were assessed for the potential for damage of, or adverse consequences from flooding. The vulnerability of qualifying interests and of flora and fauna of conservation value within each designated site to flooding was evaluated. Impacts on species reproductive success, nesting and feeding and impacts on habitat function were assessed as part of the PFRA. An overall vulnerability rating was assigned to each designated area. The output from this study is a subset of the inputs to the Preliminary Flood Risk Assessment required to determine areas of significant potential risk from flooding.
- **Wicklow Local Network Reinforcement (Irish Water)** – Coordination of environmental inputs for the replacement of a section of sewer in Wicklow town. Assessments being conducted include EIA Screening, Screening for Appropriate Assessment, Archaeological Screening and Invasive Species assessment.
- **Toberroe Power Plant (Quinn Group)** - The development comprises construction of a 450MW CCGT Power Plant with a maximum 180MW peaking plant. The rare and protected plant, Wood Bitter Vetch (*Vicia orobus*), was recorded by the National Parks and Wildlife Service in the area. A detailed botanical assessment of the footprint of the site and associated works was conducted. The plant was located within the site boundary and access routes and mitigation measures were proposed to minimise impacts on the rare and protected species.
- **Great Island and Tarbert Proposed Combined Cycle Gas Turbines (CCGTs) EIS (Endesa)** - Coordination and management of terrestrial ecological surveys – terrestrial habitat, flora and fauna assessments were conducted at two existing brownfield sites as part of EIA.



Jon Kearney

Principal Ecologist



CONSULTANTS IN ENGINEERING,
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Profile

Jon is a principal ecologist with over 14 years' experience in both the UK and Ireland. His skills include an extensive knowledge of field survey techniques and methodology, ornithological surveys, mitigation design, water quality assessment, Appropriate Assessment and Ecological Impact Assessment. Jon has extensive experience of ornithological, reptile, mammal and amphibian surveying; habitat surveying, botanical surveying and invertebrate sampling techniques and identification. Jon has completed ecological assessments, EIAs, and Appropriate Assessments for a wide variety of projects in Ireland and the UK including over 35 wind farm applications, solar farms, pipelines, road schemes, greenways and commercial developments. He has considerable experience of EIS and ecological constraints work, which often includes extensive reference to, and interpretation of, Article 6 of 'The Habitats Directive', and to other EU, UK and Irish conservation legislation.

Previous Experience Essentials for This Project

• Upperchurch Wind Farm, Co. Tipperary

Jon was the lead ecologist for Upperchurch Wind Farm in Tipperary. He both coordinated and conducted bat, mammal, habitat and ornithological surveys within the study area of the 22 turbine Wind Farm. He prepared the Ecological Impact Assessment, Appropriate Assessment and Ecological Management and Habitat Restoration Plan. Jon was also involved in the consultation process with NPWS.

• 'O' Grainna Case' Derragh Wind Farm, Co. Cork

Jon was the lead ecologist for Derragh Wind Farm for the most recent application in 2015. The planning for the previous application had been over turned in the high court in the 'O' Grainna Case' due to lack of consideration for the Grid Route. Jon prepared the Natura Impact Statement and Flora and Fauna Chapter of the EIS for the most recent revised application which received planning from An Bord Pleanála.

• Moanvane Wind Farm, Co. Offaly

Moanvane is a 12-turbine project in Co. Offaly. FT are acting as the planning consultant for the client and project supervisor for the design stage of the project. Jon was the lead ecologist for the project coordinating ecological survey for both the wind farm and grid route including ornithological, mammal, habitat, bat, aquatic and botanical survey. He coordinated the consultation process with NPWS and other relevant consultees for ecology. Jon prepared the Natura Impact Statement and Biodiversity chapter of the EIS.

• Baseline surveys for bat at 34 Bord na Móna bog sites in the midland, Counties Kildare and Offaly

Jon coordinated and conducted a full suite of bat surveys at 34 Bord na Móna bogs in the midlands. A full year of surveys were carried out in 2015 including activity surveys, roost surveys and surveys from height using both automated and manned bat detectors.

• Knockranny Wind Farm 42MW

Jon was the lead ecologist for Knockranny. He carried out Ornithological surveys, habitat surveys, bat surveys and Kerry slug surveys within the site and the greater surroundings. He prepared the Ecological Impact Assessment, Appropriate Assessment, Ecological Management and Habitat Restoration Plan and the Haul Route Selection Report. Jon was also involved in the consultation process with NPWS.

Key Information

Qualifications

M.Sc. Ecological Management and Biological Conservation,
Queens University Belfast, 2005

BSc. Applied Ecology
University College Cork 2004

Professional Memberships

MCIEEM Full member of the Institute of Ecology and Environmental Management

Employment History

July 2015- Present

Fehily Timoney & Company
Principal Environmental Scientist

2010 – 2015

Malachy Walsh and Partners

2009 – 2010

Renewable Energy Systems Ltd.

2007 – 2009

RPS Consulting Engineers

2007

Mott McDonald

2006 – 2007

Mouchel

2005 – 2006

Freelance Ecologist

Expert Witness

Expert Witness at several oral hearings including:
Pairc Uí Chaoimh
Dooling Pier

Publications

Jon Kearney (2010). Kerry slug (*Geomalacus maculosus*) recorded at Lettercraffroe, Co. Galway. Irish naturalists Journal **31** No. 1 p68 - 69



Jon Kearney

Principal Ecologist



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- **Pairc Uí Chaoimh Redevelopment, Cork City**

Lead ecologist for the redevelopment of Pairc Uí Chaoimh. Jon prepared the Flora and Fauna chapter of the EIS and the Natura Impact Statement. Jon was the expert witness for ecology representing the GAA at the subsequent An Bord Pleanála oral hearing following which the project received full planning.

- **Athea Wind Farm 40MW**

This project, consist of three adjacent wind farms, consists of 20 turbines. A large majority of the site is located within the Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code: 004161). This site and has been designated as a Special protection area (SPA) under the E.U. birds directive of special conservation interest for the hen harrier. Jon was the lead ecologist for Athea. He carried out ornithological surveys, small mammal survey, habitat surveys, vegetative quadrat surveys and bat surveys within the site and the greater surroundings. He prepared several preplanning reports and the ecological monitoring report for 2013. Jon was also involved in the consultation process with NPWS and IFI.

- **Lettercaffroe Wind Farm 24MW**

This project, in two phases, consists of 31 high mast low wind speed 2.5mw turbine generators. Jon was the project ecologist for Lettercaffroe. He carried out ornithological surveys, habitat surveys, bat surveys and Kerry slug surveys within the site and the greater surroundings. He prepared the Ecological Impact Assessment, Appropriate Assessment, Ecological Management and Habitat Restoration Plan and the Haul Route Selection Report. Jon was also involved in the consultation process with NPWS.

- **Lenamore Wind Farm, Co. Kerry 24MW**

Jon was the lead ecologist for Leanamore Wind Farm. Jon prepared the Ecological Impact Assessment ecological restoration and management plan for hen harrier and the Appropriate Assessment for the proposed Wind Farm. He carried out ecological field surveys of the entire site including habitat and mammal surveys.

- **Toberatoreen Wind Farm, Co. Kerry 17MW**

Lead Ecologist responsible for the Natura Impact Statement, ornithological surveying, terrestrial and aquatic ecological assessment, EclA and ecological restoration and management plan. Jon was also involved in the consultation process with NPWS and IFI.

- **Dunkettle Interchange**

Ecology Manager for the reconfiguration of the Dunkettle Interchange to a free flowing interchange including: Rare Plant survey and translocations; Invasive species surveys and design of ISMP; Mammal and bat surveys. Derogation licences for badger and otter; ornithological surveys; lamprey and water beetle surveys; lepidoptera surveys; habitat creation, consultation with statutory bodies (IFI NPWS).

- **Lisheen Wind Farm Phase I Post-Construction Monitoring 54MW**

The 18 turbine Lisheen Wind Farm became fully operational in 2009. Planning permission was granted for the development with the condition that three years of post-construction monitoring be conducted within the wind farm site. Jon was the project manager for Lisheen Wind Farm Post-construction monitoring. He has carried out vantage point, transect and I-WeBS surveys for birds. Jon is also coordinating fatality searches for both bats species and birds within the site. He is also coordinating the liaison process.

- **Glentane Phase II Wind Farm Ecological Clerk of Works Water Quality Monitoring**

Jon carried out weekly audits at the wind farm site during the construction period in relation to sediment and erosion control measures. He also conducted both biological and physio-chemical water quality sampling at sampling stations within the greater catchment area of the wind farm and produce weekly reports for the developer.

- **Cahir Solar Farm, Co. Tipperary**

Jon was the senior ecologist for Cahir Solar Farm. He coordinated the ornithological surveys, habitat surveys, mammal surveys within the site and the greater surroundings. He reviewed and managed the preparation of the Ecological Report, designed the ecological enhancement measures, Appropriate Assessment Screening Report and ecological enhancement measures. Jon was also involved in the consultation process with NPWS.

- **Carrick Solar Farm, Co. Tipperary**

Jon was the senior ecologist for Carrick Solar Farm. He coordinated the ornithological surveys, habitat surveys, mammal surveys within the site and the greater surroundings. He reviewed and managed the preparation of the Ecological Report, designed the ecological enhancement measures, Appropriate Assessment Screening Report and Natura Impact Statement. Jon was also involved in the consultation process with NPWS.



Jon Kearney

Principal Ecologist



CONSULTANTS IN ENGINEERING,
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- **Ballyhale Solar Farm, Co. Kilkenny**

Jon was the senior ecologist for Ballyhale Solar Farm. He carried out Ornithological surveys, habitat surveys, mammal surveys within the site and the greater surroundings. He reviewed and finalised the Ecological Report, designed the ecological enhancement measures, Appropriate Assessment Screening Report and Natura Impact Statement. Jon also coordinated the consultation process with NPWS.

- **Carragraigue Solar Farm, Co. Cork**

Senior ecologist prepared Natura Impact Statement for the Carragraigue Solar Farm, consultation with statutory bodies, designed the ecological enhancement measures and conducted ecological surveys at the site including habitats, mammals, birds and bats.

- **Glenamoy House Solar Farm, Co. Meath**

Senior ecologist prepared the Natura Impact Statement and Ecological Appraisal for the project, coordinated consultation with statutory bodies, designed the ecological enhancement measures for protected species including yellowhammer and conducted ecological surveys at the site including habitats, mammals, birds and bats for the site located near Laytown, Co Meath.

- **Cork Area Strategic Plan-Strategic Environmental Assessment (SEA)**

The Cork Area Strategic Plan (CASP), adopted in 2001, provides a framework for the full integration of land use, transportation, social and economic elements for the Cork area up to 2020. Prepared ecology chapter of the SEA.

- **Strategic Area Plans Cork County**

Prepared the biodiversity, flora and fauna chapter for the Strategic Environmental Assessment for the following towns:

- Macroom
- Clonakilty
- Kinsale
- Skibbereen
- Fermoy
- Mallow.

- **Doolin Pier Development, Co. Clare**

A new harbour development comprising of a 103 metre pier new pier structure, revetment, bed rock dredging, access road and associated works at Doolin, Co Clare. The new facility offered improved access to the Aran Island from the mainland. Jon was the lead ecologist for the EIA. Coordinating and undertaking: Ecological survey (fauna, flora and habitats). Production of an NIS and terrestrial ecology chapter of the EIS. Expert witness at oral hearing for project which received planning.

- **Southeast Clare habitat mapping**

Carried out phase I habitat survey for Clare County Council of all habitat types within a total study area of 400km². Habitats were classified to level 3 according to a guide to habitats in Ireland (Fossitt, 2000). The information gathered was used to produce a comprehensive habitat map of the region. Among the EU Annex I habitats recorded during the survey was 'depressions on peat substrates of the rhynchosporion (7150)'. This habitat was previously unrecorded within the region and maybe designated as a site of international importance following further investigation.

- **Ardcooney Integrated Tourism Masterplan, Co. Clare**

Fehily Timoney & Company prepared an Integrated Eco-Tourism Masterplan for Ardcooney in County Clare. The masterplan consisted of the development of land along the River Shannon for tourism including a Caravan Area, Mobile Homes, Glamping, Kayak Storage and camping pods. Jon conducted ecological surveys within the study area and prepared a subsequent Stage Two NIS assessing phase of project along with the overall Masterplan for the area which received planning.

- **Ballynora to Lehenaghmore Bord Gáis Pipeline**

Bord Gáis proposed to construct a natural gas pipeline 5.5km in length extending from Ballynora to Lehenaghmore, Co. Cork. A Preliminary Environmental Assessment (PEA) was prepared in order to assess the environmental constraints associated with the proposed pipeline. A desktop review was carried out to identify features of ecological importance within the study area followed by a phase I habitat survey and mammal survey. Prepared flora and fauna chapter of the Environmental report.

- **Doon Post Primary School Badger Derogation Licence, Co. Limerick**

Provided ecological expertise during the construction phase of Doon Post Primary School. Project manager/ecologist coordinating badger mitigation measures. Jon conducted activity study for badgers (14 setts), bats and amphibians. Consultation with NPWS and IFI. Application for wildlife licence and coordinating mitigation measures stipulated in licence including the building of an artificial badger sett, exclusions, hard blocking and sett removal.



Jon Kearney

Principal Ecologist



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- **M20 Controlled Motorway (London to Dover Motorway)**

Carried out protected species surveys for Highways Agency at 23 sites on the M20 Motorway including a full botanical survey of each site. The information was then incorporated into the environmental works information to ensure that environmental legislation was adhered to during works. Protected species identified included dormice, common lizard, slow worm, otter and badger. The role also involved the onsite supervision of works and auditing to ensure that the subcontractor was adhering to mitigations.

- **Poorman's Bridge, County Laois**

Project ecologist conducted ecological surveys for bats, mammals, as well as habitat and aquatic surveys for Annex I habitats, white-clawed crayfish, salmonids and lamprey. The bridge is located upstream of the only population in the world of the Nore Freshwater Pearl Mussel. Prepared Natura Impact Statement and reviewed detailed construction works method for submission to An Bord Pleanála.

- **Delphi Bridge Restoration Works, Co. Mayo**

The role involved the on-site supervision of construction works to ensure that the agreed method statement was being adhered to for this extremely sensitive site. The bridge was situated on the most important river in Ireland for Freshwater Pearl Mussel. The first year of works was cancelled due to a catastrophic flooding event resulting in damage through the movement of and spillage of sandbags downstream into freshwater pearl mussel habitat, and damage to the riparian vegetation, which was not mitigated against at the time. Project ecologist for the second year of proposed works (2012) following this event. There was ongoing consultation with directors and regional officers within NPWS and IFI. Jon conducted daily turbidity and water chemical analysis which was reported daily to NPWS, IFI and Mayo County Council.

- **Development of Beamish and Crawford Site, Cork City**

Heineken Ireland Ltd. and BAM applied successfully for planning permission to build a multi-purpose development on the site of the old Beamish and Crawford Brewery on South Main Street, Cork City centre. Jon was the project ecologist for the project. He carried out habitat surveys and bat surveys within this urban site and the greater surroundings. He prepared the Ecological Impact Assessment and Appropriate Assessment. Jon was also involved in the consultation process with NPWS and designed a habitat enhancement plan including the installation of green roof as part of the design of the development.

- **GlaxoSmithKline Coastal Revetment**

Project ecologist for GSK coastal revetment. He conducted ornithological, habitat and protected species surveys at the proposed site. He is also coordinated the liaison process with NPWS, prepared an Appropriate Assessment and successfully completed a derogation license for an otter holt recorded within the footprint of the development.

- **M23 Passive Sign Installation, London**

Project involved the installation of signs along the M23, the main motorway linking London to the south coast of England. A full ecological survey was carried out for 5 sites looking at the presence of protected species and noxious weeds onsite. Prepared a Preliminary Environment Assessment citing possible risks and mitigations for these risks before works could commence. The role also involved the onsite supervision of works, auditing to ensure that the subcontractor was adhering to mitigations and conducting tool-box talks to all on-site personnel.

- **Glenbeigh to Cahersiveen Greenway**

Kerry County Council propose to construct a walkway/cycleway along a 17km stretch of dismantled railway line. Jon was the project ecologist for the development. He both coordinated and carried out a full suite of ecological studies including ornithological surveys, habitat surveys, bat surveys and Kerry slug surveys along the entire corridor of the route and the greater surroundings. He prepared the Ecological Impact Assessment route selection report and final review of the Appropriate Assessment. Jon was also involved in the consultation process with NPWS.

- **Dungarvan Outer Bypass Route Selection Report**

The National Roads Authority plan to construct an Outer Bypass of Dungarvan, Co. Waterford. Carried out phase I habitat survey of the entire study area, consisting of a corridor of 200m wide along each Route Option. A protected species survey was also carried out for both flora and fauna along each route option.

- **The Highways Agency Japanese Knotweed Management Plan, UK**

Carried out survey for the invasive species Japanese Knotweed for the counties of Kent, Surrey, East Sussex and West Sussex. The information gathered was incorporated into a Management Plan for all Highway Agency land within Southeast England.



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• Daventry Canal Development, UK

Daventry District Council was developing a new canal arm linking Daventry town centre with the Grand Union Canal about 3 miles to the north. Carried out ecological surveys for mammals (badger, otter and dormouse) and reptiles within the footprint of the development.

• Aughinish Alumina Ltd. (AAL) BRDA Extension, Co. Limerick

AAL operate a bauxite refinery plant situated on Aughinish Island, Co. Limerick. Residues from the extraction process are directed to the Bauxite Residue Disposal Area (BRDA). The proposed extension of the BRDA resulted in the loss of three old disused badger setts and one otter holt. The project involved the removal, under licence, of the three disused badger setts. Badger and otter field surveys determined the optimal location for artificial sett/holts. The project involved the constant liaison with statutory bodies to ensure that the client was meeting the requirements specified in the EIS. I designed and supervised the construction of three artificial otter holts and one artificial badger sett.

• Water Quality Assessment Knockathea & Dromada Wind Farms

Airtricity proposed to develop two wind farms near Athea village in the west of Co. Limerick. A benthic macro invertebrate survey was carried out within the rivers and invertebrates identified to the taxonomic level required to calculate Q-ratings. A Physico-chemical survey was also carried out at all waterways potentially at risk from the development. A Water Quality Assessment was prepared for the development of two wind farms at Knockathea & Dromada.

Other Ecological Projects Completed by Jon

- Client: Dairygold Ltd. – Dairygold Redevelopment, Co. Cork (2014)
- Client: Louis Keating/Clare County Council – Kilrush Marina Redevelopment and Dredging, Co. Clare (2012)
- Client: GSK – Various projects including a coastal revetment and several new buildings within the plant, Co. Cork (2010 – 2015)
- Client: Fenit Harbour Board - Fenit Marina and Harbour Extension Preliminary Ecological Studies & EIA Screening, Co. Kerry (2011)
- Client: The Department of Arts, Heritage and the Gaeltacht - Clifden and Inishbofin Airport Terminals (2011)
- Client: Kerry County Council - Ballyseedy Woods River Improvement Scheme, Co. Kerry (2011)
- Client: Coollegrean Wind Farm Ltd - Coollegrean Wind Farm, Co. Cork (2014)
- Client: Scartaglen Wind Farm Ltd - Scartaglen Wind Farm Phases I and II, Co. Kerry (2012 - 2015)
- Client: Castlegregory golf club - Castlegregory golf course club house (2013)
- Client: Ecopower - Glencarbry Wind Farm, Co. Tipperary
- Client: Ecopower - Boolabrien Wind Farm, Co. Waterford
- Client: Ecopower - Knocknamona Wind Farm, Co. Waterford
- Client: Ecopower - Derrynadivva Wind Farm, Co. Mayo
- Client: Ecopower - Killavoy Wind Farm, Co. Cork
- Client: Met Eireann – Valentia Met Eireann Air Monitoring Facility
- Client: Longford County Council – Four bridge restoration projects, Co. Longford
- Client: Kerry County Council – N70 Kilderry Road, Co. Kerry
- Client: ACARD Ltd. – Cahersiveen to Reenard Point Walkway, Co. Kerry

Key Skills and Experience

- Have applied for, conducted surveys and supervised construction work under the terms of completed final reports for several derogation licences for bats, badger, otter, pygmy shrew, electrofishing, reptiles, water vole, dormouse and Kerry slug.
- Expert Witness (Project Ecologist): at three An Bord Pleanála Oral Hearings, Cluddaun Wind Farm (Mayo), Pairc Uí Chaoimh (Cork) and Doolin Pier (Clare)
- Phase I habitat surveys, Fossitt (2000), vantage point survey (birds), transect surveys (birds), point count (birds), AnaBat (Bats), Q sampling (kick samples), White clawed crayfish surveys, electrofishing, mammal surveys (Longworth traps, field surveys, dormouse tubes, motion detection cameras).



Dr. John Mahon

Senior Acoustic Consultant



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

John is a Senior Acoustic Consultant 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

- **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.

- **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

- **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 Scotland's design goals.

- **M8 m73 M74 Motorway Improvements**

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

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

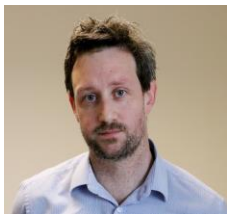
2008 – 2013

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 Consultant



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

- **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.
- **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.
- **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.



James Dunn

Senior Project Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

James is a Senior Project Engineer with Fehily Timoney and Company working in the Infrastructure Department. He has a Bachelor of Science in Applied Geology from Staffordshire University and a Masters in Geology from University College Cork. James has 13 years' professional experience in the geo-environmental and water quality sectors in the UK, Ireland and Australia.

He has successfully managed the completion of soils, land and hydrogeology EIS/EIAR chapters for a number of large scale renewable energy and infrastructure developments. James has also gained significant exposure to EIAR projects with respect to proposed developments on Peatlands. He is also experienced in the multidisciplinary approach to the completion of the EIAR process and provides input and expertise to other disciplines in the project team.

During his career to date James has gained extensive experience in the technical assessment of reports with respect to contaminated land, hydrogeology and engineering geology. Through the development of interpretive reports from geo-environmental, geotechnical and hydrogeological investigations to developing ground models and detailed design James has assessed and interoperated the key findings from technical reports to demonstrate his understanding of ground and hydrogeological conditions.

Key Skills

James has extensive experience in the following areas:

- Environmental Risk Assessment
- Ground Investigations
- Soil and groundwater remediation
- Engineering Geology
- Hydrogeological assessment

Previous Experience Essentials For This Project

Environmental Impact Assessment Report (EIAR)

- **EIAR for Proposed Development at Knockharley Landfill 2018**
Responsible for the preparation of the Land, Soils and Geology chapter of the EIAR to support a Strategic Infrastructure Development to An Bord Pleanála. Also provided support and input into the Hydrology and Surface Water Chapter. The proposed development is for the identification of waste acceptance to 440,000 tonnes per annum, development of an incinerator bottom ash facility, leachate treatment facility, biological treatment facility and ancillary infrastructure. The application is currently with ABP.
- **EIS/EIAR for Moanvane Windfarm, Co. Offaly, 2018**
Responsible for the completion of the Land, Soils and Geology Chapter for the permitted Moanvane Windfarm. This comprised a 13 No. turbine development with associated infrastructure over existing peat bogs in Co. Offaly. Responsible for all baseline assessment associated with land, soils, geology and hydrogeology including desk and field studies.

Key Information

Qualifications

MSc Geology,
University College Cork, 2014

BSc Applied Geology: 2:1 (Hons)
Staffordshire University, 2005

Professional Memberships

International Association
Hydrogeologists

Geological Society London

Employment History May 2016- Present

Fehily Timoney & Company
Senior Project Engineer

January – May 2016

University College Cork
Research Support

March – Dec. 2015

Ground Investigations Ireland
Engineering Geologist

Sept. 2014 – March 2015

Bord na Móna
Environmental Office – Resource
Recovery

May 2012 – June 2013

Salva Resources
Field Exploration Geologist - Metals

2010 – 2012

Rio Tinto Iron Ore
Geologist

2005 – 2010

RAW Group
Project Manager/Remediation
Engineer



James Dunn
Senior Project Engineer

- **EIS/EIAR for the South Kerry Greenway, 2017**

Responsible for the preparation of the Land, Soils and Geology chapter for the EIAR/EIS for a shared cycling and pedestrian 32km route from Glenbeigh to Reenard on the line of the former Great Southern and Western rail line. This also included a review of intrusive site investigation and monitoring reports, peat stability and other environmental impacts associated with the development.

Planning Application and Strategic Infrastructure Development Applications

- **Tier 2 Risk Assessments, Groundwater – HSE, Cork**

Senior Project Engineer responsible for site investigation design and associated preparation of tender documentation for site investigation for the completion of Tier 2 Risk Assessments in accordance with the *EPA Guidance on the Authorisation for Discharges to Groundwater*. This project was undertaken on behalf of the HSE (South) for two regional hospitals in County Cork. The objective of the works was to assess the potential impact to receptors including groundwater from discharge activities at the site. The completed Environmental Assessments formed part of a Section 4 Discharge Licence Application to Cork County Council for the proposed extension of the facilities. FT managed and supervised the procurement of site investigation contractors, supervision of site works and environmental sampling of groundwater and discharge waters, preparation of Tier 2 environmental Risk Assessments and the development of a Conceptual Site Model.

Environmental & Contaminated Land Assessments

- **Senior Project Engineer: Groundwater Risk Assessment, Basketstown Landfill, Co. Meath (December 2017 – ongoing)**

Completion of an Aquifer Assessment and Groundwater Flow Model for the licenced Basketstown Landfill (Closed) in Co. Meath in line with EPA methodologies on behalf of a local authority client. This project included desk based assessment, review of previous Groundwater Risk Assessments and the refinement of the current Conceptual Site Modelling including Source-Pathway-Receptor models for the site. Responsible for the review of the Groundwater Flow Model developed using the USGS MODFLOW software package including the input of modelled engineered groundwater control options to propose potential mitigation measure associated with the ongoing impact to groundwater beneath the site from leachate contamination. The objective of the project is to provide a cost benefit analysis for proposed remedial options for the site.

- **Senior Project Engineer: Tier 1 & 2 Assessments, Unauthorised Landfill Remediation – Dublin Airport North Runway Development (April – November 2017) Estimated Capital Value - €320M.**

Senior Project Engineer responsible for the management Tier 2 Environmental Assessments of 2 No. areas of unregulated waste disposal within an 8.6-hectare site within the Dublin Airport North Runway development boundary. Areas of unregulated waste were identified during Environmental Assessment works at the project. The project comprised the completion of Tier 1 Assessment for the site, completion of additional detailed site investigations to fully delineate the extent of waste deposits. FT managed and supervised the intrusive site investigation works, environmental sampling of soils and groundwaters, preparation of the Tier 2 Environmental Risk Assessment and the development of a Conceptual Site Model. FT proposed remedial options for the site which resulted in the excavation and disposal of approximately 12,000 tonnes of Mix Municipal Waste – International Catering Waste from the sites. FT supervised the remedial works and undertook validation sampling and screening of results against published Soil Guideline Values (SGVs) to ensure no residual remaining risk to receptors at the site remained.

- **Senior Project Engineer: Ballyaghveny Landfill Remedial Works, Co. Tipperary (October 2016 – January 2017)**

Acting as resident engineer (Employer's Representative) for the investigation and remediation of damaged landfill liner and capping and installation of groundwater management infrastructure at a Licenced Landfill Facility. The project involved non-intrusive and intrusive investigations to identify pathways for impact to groundwater beneath the site from leachate associated with filled and capped waste cells. Upon identification of remedial works required FT managed and supervised remedial repairs to liner and capping and the installation of groundwater collection and pumping infrastructure to mitigate the risks posed to groundwater beneath the site.

- **Detailed Quantitative Risk Assessment (DQRA) – Dublin Airport North Runway Development**

Responsible for the completion of a DQRA to assess the potential risk posed to groundwater, surface water and site users from the presence of Polyfluoroalkyl Substances (PFASs) associated with the use of fire extinguishers at a former fire training ground within the Dublin Airport North Runway development boundary. A sampling program was developed in agreement with the Client, the Local Authority and liaison with analytical laboratories to ensure sampling testing targeted potential contaminants of concern.



James Dunn
Senior Project Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

FT undertook and comprehensive groundwater and surface water sampling program, assessment of aquifer properties and groundwater discharge modelling and development of a Conceptual Site Model based on the Source – Pathway – Receptor (SPR) Model to facilitate the completion of the DQRA.

Laois County Council Planning Authority, Viewing Purposes Only



Jonathon Dunn

Project Ecologist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Jonathon is a Project Ecologist with Fehily Timoney and Company. He has over six years' experience in the environmental sector.

Jonathon has received extensive formal training as an ecologist, having undertaken a BA in Natural Sciences (ecological route) at the University of Cambridge in the UK where he undertook courses on botanical, ornithological, mammalian and entomological field skills. He also has an MSc. (Distinction) in Ecology, Evolution and Conservation from Imperial College London, where he took modules on inter alia habitat identification and mapping, habitat management, ecological impact assessment, GIS and statistical programming. Finally, he also has a PhD in Avian Ecology from the University of Newcastle in the UK where he undertook independent research on gamebird ecology and conservation.

Jonathon has a broad skill set, having gained much experience while working for Newcastle University in the UK teaching various ecological field survey techniques, as well as conducting published research into avian ecology and conservation. While at Newcastle University he worked on several collaborative projects with external ornithological organizations such as the Royal Society for the Protection of Birds and the Scottish Windfarm Bird Steering Group.

During his professional experience Jonathon has carried out numerous specialist field surveys for birds, bats, plants and mammals (terrestrial and aquatic). He also has carried out numerous Appropriate Assessments, ecological appraisals, Environmental Impact Assessment Reports and other environmental assessments for a range of projects, including wind and solar farms. He has also modelled assessments of avian Collision Risk impacts and Shadow Flicker impacts for several wind farms for inclusion in the Environmental Impact Assessment Reports.

Key Skills

Jonathon has experience in the following:

- General avian surveys: Vantage Point surveys, breeding and winter transect surveys, hinterland surveys (I-WeBS and hen harrier winter roost).
- Species-specific avian surveys for: kingfisher, barn owl, hen harrier and red grouse.
- Bat activity surveys, bat static detector surveys and structural surveys for bats.
- Terrestrial mammal surveys including badger and otter surveys and trail camera recording.
- Habitat mapping.
- Plant identification including quadrat surveys and invasive species mapping.
- Rare plant translocation.
- Amphibian (frog and newt) surveys and translocation.
- Data manipulation/presentation using Excel, R, QGIS, ArcGIS, Visual Basic and Python.
- Report-writing: species-specific reports, Appropriate Assessments, Ecological Appraisals and Ecological Impact Assessment Reports.
- Ecological Clerk of Works.
- Collision Risk Modelling.
- Shadow Flicker Modelling.

Key Information

Qualifications

PhD Avian Ecology,
Newcastle University, UK, 2015

MSc. Ecology, Evolution and
Conservation,
Imperial College, London, UK, 2009

BA (Hons), Natural Sciences
Homerton College, University of
Cambridge, UK, 2008

Employment History

September 2018 - Present

Fehily Timoney & Company
Project Ecologist

2016 – 2018

Newcastle University, Newcastle-
upon-Tyne, UK
Research Associate

2015 – 2016

Helena Biosciences Europe,
Sunderland, UK
Documentation Assistant

2014 – 2015

Newcastle University, Newcastle-
upon-Tyne, UK
Research Assistant



Jonathon Dunn

Project Ecologist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Previous Experience

Jonathon has worked on the following projects while at Fehily Timoney:

- **Dernacart Wind Farm, Co. Laois**
 - Manipulated avian flightline data and written bird section of EIAR chapter.
 - Undertaken Collision Risk Modelling.
 - Undertaken Shadow Flicker analysis.
- **Gortyrally and Inchamore Wind Farm, Co. Cork**
 - Undertaken avian Vantage Point surveys, breeding and winter transect surveys, hinterland surveys and red grouse surveys.
 - Undertaken bat activity surveys and static detector surveys.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel
- **Croaghau Wind Farm, Co. Carlow**
 - Undertaken bat static detector surveys.
- **Knockharley Landfill, Co. Meath**
 - Undertaken avian Vantage Point surveys, breeding and winter transect surveys, kingfisher surveys and barn owl surveys.
 - Undertaken mammal surveys and trail camera recording.
 - Written avian reports as part of further information response.
- **Barranafaddock Wind Farm, Co. Waterford**
 - Undertaken avian Vantage Point surveys, mammal surveys and botanical quadrat surveys.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
 - Undertaken Collision Risk Modelling.
 - Written reports on operational impacts of wind farm on birds and bats as part of retention application, as well as a remedial EIAR.
 - Modelled Shadow Flicker impacts.
- **Castlewaller Wind Farm, Co. Tipperary**
 - Undertaken avian Vantage Point surveys, habitat mapping, invasive species recording, mammal surveys/trail camera recordings and cable route walkover.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
 - Mapped habitats using QGIS.
 - Written EIAR biodiversity chapter.
- **Bat Surveys at four wind farm sites, Co. Offaly and Co. Westmeath**
 - Undertaken static bat detector surveys and activity surveys.
- **Dromada Wind Farm, Co. Limerick**
 - Undertaken avian Vantage Point surveys for hen harrier.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
 - Written annual monitoring reports for hen harrier.
- **Derragh Wind Farm, Co. Cork**
 - Undertaken avian Vantage Point surveys and red grouse surveys.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
- **Ballynakill and Windmill Wind Farm, Co. Kildare**
 - Undertaken avian Vantage Point surveys.
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
 - Wrote baseline avian monitoring report.
- **Drehid Wind Farm, Co. Kildare**
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
- **Fossy Wind Farm, Co. Laois**
 - Input/manipulated avian flightline data using GIS and flight height/time data using Excel.
- **Derrycoffey Wind Farm, Co. Offaly**
 - Undertaken avian Vantage Point Surveys, winter transect surveys and hinterland surveys.



Jonathon Dunn

Project Ecologist



CONSULTANTS IN ENGINEERING
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- **Mayglass Solar Farm, Co. Wexford**
 - Undertaken ecological walkover survey.
 - Prepared ecological appraisal and Appropriate Assessment to accompany planning applications
- **Dennistown Solar Farm, Co. Wexford**
 - Undertaken cable route walkover.
 - Preparation of Section 5 Application for Grid Connection
- **Cork County Bridge Rehabilitation Contract 2, 2019 South & West Regions, Co. Cork**
 - Undertaken habitat mapping, otter survey, kingfisher survey, invasive plant survey and bridge structural survey for bats.
 - Written Appropriate Assessments and ecological appraisals for nine bridges.
- **Design of a Central Gas Injection Facility (Biomethane), Co. Cork**
 - Written Appropriate Assessment.
- **MAS Agricultural Grounds, Co. Cork**
 - Undertook ecological walkover.
 - Written Ecological Memo.
- **Coastal Defence Works, Co. Wexford**
 - Undertaken habitat mapping, invasive plant survey, mammal survey and bird survey.
 - Written Appropriate Assessment.
- **N4 Collooney to Castlebaldwin road upgrade, Co. Sligo**
 - Undertaken bat structural survey, habitat mapping, mammal surveys, bird surveys, barn owl survey, badger surveys, otter surveys and amphibian translocation.
 - Undertaken Ecological Clerk of Works role.
 - Written bat survey report.
- **Section 5 Application Grid Connection Furryhill, Co. Kildare**
 - Undertaken habitat mapping, invasive plants survey, bird walkover survey, bridge bat survey, otter and kingfisher survey.
 - Written Appropriate Assessment for Section 5 Grid Connection Application.
- **Maganey Solar Farm, Co. Carlow**
 - Undertaken habitat mapping, mammal survey, bird walkover survey, invasive plants survey
- **Historical Landfills, Co. Tipperary**
 - Undertaken invasive plant species mapping
 - Written Ecological Memo
- **Dunkettle Interchange, Co. Cork**
 - Undertaken rare plant translocations and invasive species mapping
 - Written barn owl reports
 - Undertaken Ecological Clerk of Works role

Other relevant experience

- Lead author on published report for Scottish Wind Farm Bird Steering Group: 'Desk based evaluation of wind farms and habitat management in Scotland'.
- Written published articles for the following scientific journals: 'Bird Conservation International', 'Biological Conservation', 'Plos One', 'Royal Society Open Science', 'International Journal of Biodiversity', 'Animal Cognition', 'Animal Behaviour', 'Baghdad Science Journal' and 'Behavioral Ecology' at Newcastle University, UK.
- Member of IUCN Galliformes Specialist Group.



Steve McCarthy

Project Planning Specialist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

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

Steve holds a BA in Geography and an MPlan Masters in Planning and Sustainable Development from University College Cork. Steve is a Graduate Member of the Irish Planning Institute.

Previous Experience Essentials For This Project

- **Environmental Impact Assessment Reports**
Contribution to and production of both Planning Policy and Human Health chapters for Environmental Impact Assessment Reports (EIAR) which have accompanied both wind energy developments and residential and mixed use schemes.
- **Upperchurch Windfarm Ancillary Works Environmental Impact Assessment**
Assessment of Chapter 6 (Human Health) of an EIAR which accompanied a planning application. This assessment was on behalf of Tipperary County Council who had engaged Fehily Timoney to undertake an EIA of the submitted EIAR. The application related to ancillary works to a previously permitted wind farm and was submitted under planning reg. ref. 18/60/0913
- **Solar Farm Development Planning Applications**
Preparation and submission of planning application for solar PV renewable energy developments. Each solar application is accompanied by a detailed environmental and planning report which assesses the impact of the solar development on a multitude of factors including: Biodiversity, Cultural Heritage, Glint and Glare, Landscape and Visual Impact, Noise & Hydrology. Experience in submission of applications for solar developments to both local authorities and An Bord Pleanála at the following locations; Mayglass, Co. Wexford; Dennistown, Co. Wexford; Knockanoura, Co. Clare; Cahershaughnessy, Co. Clare; Dunmurry, Co. Kildare; Kilcurly, Co. Louth.
- **Residential Planning Applications**
Preparation and coordination of design team for lodgement of planning application for a residential scheme for the following developments
Kilmacud House, Dublin
55 no. apartments within an existing Protected Structure and construction of 2 no. new apartment blocks. The application involved a submission to both the Planning Authority and Submission to An Bord Pleanála following a first party appeal against the refusal of permission. The application was granted by An Bord Pleanála in April 2018.
Old Bray Road Cabinteely, Dublin
72 no. dwellings consisting of both apartments and houses. The application involved a submission to both the local authority and submission to An Bord Pleanála following a third party appeal against the grant of permission. The application was granted by An Bord Pleanála in July 2019
Kilbarry, Waterford
Two separate and concurrent applications for a total of 182 no. residential units consisting of 48 no. apartments and 134 no. houses.

Key Information

Qualifications

BA Geography and History,
University College Cork, 2012

MPlan Masters in Planning and
Sustainable Development,
University College Cork, 2014

Professional Memberships

Graduate Member of the Irish
Planning Institute

Employment History

2018- Present

Fehily Timoney & Company
Project Planner

2017 – 2018

Stephen Little & Associates Planning
Consultants

2016 – 2017

North Somerset Council

March – July 2015

McCutcheon Halley Walsh Planning
Consultants
Internship

November – December 2014

Fehily Timoney and Company Cork
Internship



Steve McCarthy

Project Planning Specialist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Applications were also accompanied by a Natura Impact Statement and Environmental Impact Assessment Report. Permission was granted to both developments by the Planning Authority in April 2019.

- **Kildare Street Commercial Offices Planning Application**

Preparation and coordination of design team for lodgement of Planning application both to Local Authority and appeal response to An Bord Pleanála for a commercial office scheme within 4 no. Protected Structures and development of a new 7 no. storey infill development. The development was granted

- **Site Appraisals and Due Diligence**

Experience in the preparation of site appraisals for a variety of developments including solar PV developments, urban infill and rural development projects for both commercial and residential developments. assessing the proposed development in the context of planning and environmental risks and opportunities with recommendations for development potential. Such appraisals can often involve a review of the planning history and historic planning files associated with the land.

- **Development Plan and Policy Monitoring**

Monitoring of Development Plans, Local Area Plans and other policy documents on behalf of clients. Submissions on behalf of clients on the preparation of County Development Plans, Local Area Plans and other policy documents. Previous submissions have been made on the Clonburris SDZ, Metrolink and Castletroy Local Area Plan.



Kristian Divjak

Civil Design Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Kristian is a Civil Design Engineer with Fehily Timoney & Company. He is a Chartered Engineer in Croatia. 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 where he worked under mentorship on various water management projects (i.e. river regulation projects). He was responsible for 1D and 2D 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 has also experience in drainage design and flood risk assessments.

Previous Experience Essentials For This Project

Fehily Timoney and Company, Cork – 2019 - Present

- **Coom Green Energy Park EIAR**
Prepare hydrology and water quality chapter of EIAR. Calculate estimate increase in runoff due to the development. Determine impacts and propose mitigation measure during construction, operation and decommissioning of the development. Flood risk assessment and identification.
- **Croaghun Wind Farm**
High level desk study for the proposed wind farm and grid connection to determine key issues and constraints related to hydrology and water quality.
- **Boolard Wind Farm**
Drainage design for the Boolard Wind Farm.
- **N22 Design of Access Roads**
Drainage design and settlement pond design

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

- **Study Documentation for Preparing Flood Control Projects for the Zagrebačko Prislavlje Basin.**
On this project worked Consortium of three companies. Because of basins size and complexity, it was divided into three parts. For assigned part, each company had to provide description of the current state, hydrology and hydraulic model, calculation of river flood costs, flood risk and flood hazard map, flood mitigation measures.
 - Description of the current state
 - Hydraulic 1D-2D model (program used: HEC-RAS)
 - Calculation of river flood costs (program used: ArcGIS)
 - Flood risk and flood hazard map (program used: ArcGIS)
- **Study Documentation for Preparing Flood Control Projects for the Plitvice Basin**
Prepare documentations required for defining flood control projects.

Key Information

Qualifications

MSc (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

Chartered Engineer, Croatian
Chamber of Civil Engineers 2018

Employment History

2019- Present

Fehily Timoney & Company, Cork

2016 – 2018

Hydroconsult Design Ltd., Croatia

2015 – 2016

Hydroengineering Ltd., Croatia



Kristian Divjak

Civil Design Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Documentation consisted of description of the current state, hydrology and hydraulic model of basin, calculation of costs due to river flooding, flood risk and flood hazard map, implement flood mitigation measures:

- Description of the current state
- Hydraulic 1D-2D model (program used: HEC-RAS)
- Calculation of river flood costs (program used: ArcGIS)
- Flood risk and flood hazard map (program used: ArcGIS)
- **Planning Permission for Flood Mitigation Measures of town Pakrac**
 - Textual content of project
 - Open channel and bridge culverts design (program used: AutoCAD)
 - Drawings: cross sections and longitudinal sections of open channels/bridge culverts, situational scheme (program used: Civil 3D)
- **Planning Permission for a River Regulation of the Bednja River**
 - Textual content of project
 - Hydraulic 1D model of river (program used: HEC-RAS)
 - Define and present measures to investors
- **Planning Permission for a Dam at Bahunsko Basin**
Design earthen dam and determine level of water in dam for each corresponded return period.
 - Textual content of project
 - Design outlet and open channel emergency spillway (program used: HEC-HMS)
 - Drawings: cross section and longitudinal section of dam, situational scheme (program used: AutoCAD)

Hydroengineering Ltd., Croatia - 2015 – 2016 - Civil Engineer Consultant

- **Feasibility Study of Agglomeration Novi Marof**
Analyze cost effectiveness of water, wastewater and WWTP system.
 - Analyze water and waste water systems
 - Demand analyses, IWA water balance
 - Optional analysis
 - Capital and operational expenditures needed for Cost Benefit Analyze
- **Feasibility Study of Agglomeration Ludbreg.**
Analyze cost effectiveness of water, wastewater and WWTP system.
 - Analyze water and waste water systems
 - Demand analyses, IWA water balance
 - Optional analyses

Other Relevant Information

Proficient in Microsoft Office, AutoCAD, Civil 3D, HEC-RAS, HEC-HMS, ArcGIS

Basic knowledge in programs for structural design such as: Tower, Scia, Etabs, SAP 2000.



Orla Coffey

Project Ecologist

CV 01



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Orla is a Project Ecologist with Fehily Timoney & Company. She has gained extensive experience of ecological assessments and field surveying techniques during her time environmental sector. She holds an MSc in Biological Sciences from the University of Bristol and a BSc in Botany from University College Dublin.

While the basis of her education was botanically orientated, Orla has developed a broad skill set having gained much experience in her professional career conducting various floral and faunal surveys. She also possesses extensive experience of ecological habitat assessments and Appropriate Assessments. Orla has also created a number of habitat restoration plans and invasive management plans throughout her professional career.

Orla has extensive experience in completing high quality Stage 1 Screening for Appropriate Assessment and Natura Impact Statement for energy and infrastructure projects. She has considerable experience in interpretation of Article 6 of 'The Habitats Directive' and related guidance and jurisprudence.

Since joining FT, Orla has worked on numerous Appropriate Assessments and is well versed in impact assessment of the proposed works with reference to the qualifying interests and special conservation interests of Natura 2000 sites within close proximity to the site.

Key Skills

- 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
- Bird identification (by sight & sound), & flight line mapping
- Bat identification using heterodyne bat detectors, behavioral characteristics & software-based analysis of recorded calls
- Bat roost survey

Previous Experience Essentials for This Project

• Appropriate Assessment

Stage 1 Screening and Stage 2 Natura Impact Statement for numerous energy and infrastructure developments nationwide. Development of site-specific mitigation measures where necessary. Completed Natura Impact Statement for a (confidential) retention development within a SPA in Co. Waterford.

• Habitat Surveys

Habitat surveys at Moanvane windfarm Co. Offaly and (confidential) windfarm in Co. Laois. Covered extensive areas in co-operation with other operatives surveying upland, peatland, and woodland habitats.

Key Information

Qualifications

MSc by Research Biological Sciences,
University of Bristol, 2018

BSc. Botany (1st Class Hons.),
UCD, 2016

Employment History

Nov 2018- Present

Fehily Timoney & Company
Ecologist

July 2017 - Nov 2018

Malone O'Regan Environmental
Ecologist
Position



Orla Coffey

Project Ecologist

CV 01



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Completed Annex I habitat assessment at (confidential) windfarm in Co. Kildare.

- **Mammal Surveys**

Mammal surveys at energy and infrastructure developments using both field signs and trail cameras to detect the presence of terrestrial mammals. Supervision of exclusion and subsequent destruction of badger setts in accordance with the relevant derogation licence for the N4 National infrastructure Project in Co. Sligo.

- **Bird Survey Work**

Regularly carries out VP bird surveys focused on raptors, wild fowl and wetland birds including hen harrier, whooper swan, and golden plover. Majority pre-planning. Summer & winter surveys, Dawn/Dusk Surveys. Encompassing upland, lowland, peatland and agricultural habitats. Has also carried out breeding bird surveys for a proposed windfarm during 2018 breeding season to inform analysis of potential impacts.

- **Bat Surveys**

Carried out roost surveys, activity surveys, dusk and dawn emergence surveys, in addition to supervising the demolition of onsite buildings in accordance with the relevant bat derogation licence for the N4 National infrastructure Project in Co. Sligo. Completed roost and emergence surveys for the Kilkenny Western Environs Scheme in Kilkenny City.



Emily Archer

Graduate Geotechnical Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Emily is a Graduate Geotechnical Engineer at Fehily Timoney and Company working in the Infrastructure Department. She has a Bachelor of Science (BSc.) in Geology and a Masters (MSc.) in Applied Environmental Geology, both from University College Cork. Since starting with FT she has worked on various environmental monitoring and EIA projects

Previous Experience

- **Dunkettle Interchange**
Emily assisted with site supervision of the ground investigations carried out on site. This involved trial pits, boreholes and rotary core sampling. Emily also assisted with the groundwater monitoring
- **Dublin Airport Stockpile Sampling, North Runway**
Emily carried out the supervision and logging of trial pits across stockpiles and also collected environmental samples.
- **Trial Pit Logging, Kilkenny County Council**
Emily logged a series of trial pits for the classification of buried waste material at 3 sites located in Co. Kilkenny.
- **Renewable Gas Facility, Cúil na Móna, Portlaoise**
Emily's role included carrying out a site walkover, peat probing, shear vane testing, trial pit logging and drafting of the land soils and geology chapter of the EIAR and the peat stability report.
- **Drehid Wind Farm, Kildare**
Emily carried out a site walkover which included peat probing and shear vane testing at proposed turbine locations and assisted with the write up of the land, soils and geology chapter and peat stability report.
- **N22 Macroom – Ballyvourney Road, Access Track**
Emily drafted up the Design report for the access track, which also included a site walkover and the logging of trial pits.
- **Central Gas Injection Facility, Mitchelstown, Co. Cork**
Emily drafted up the Land, Soil and Geology chapter of the Environmental Report for this project. This involved a site walkover and review of all available online data.
- **Coom Green Energy Park, Co. Cork**
Emily carried out supervision of ground investigation works and geophysical surveys at each proposed turbine location as well as assisting with the write up of the Land, Soils and Geology chapter of the EIAR.
- **Historic Kerry Landfills**
Emily carried out the groundwater and surface water sampling across 13 sites as well as the accompanying Tier 2 Assessment Reports.

Key Information

Qualifications

MSc. Applied Environmental Geology
University College Cork, 2018

BSc. Geology
University College Cork, 2017

Employment History

July 2018- Present

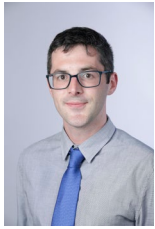
Fehily Timoney & Company
Graduate Geotechnical Engineer

May 2018 – July 2018

Fehily Timoney & Company
Internship

August 2016

ESB International Cork
Undergraduate Work Placement



Eamon Hutton

Project Planner



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

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

Eamon holds a BSc in Spatial Planning and A MSc in City Planning and Regeneration which he received from the University of Glasgow. Eamon is a Graduate member of the RTPI and IPI and holds a Post-Graduate Diploma in Urban Design (University of Strathclyde).

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

Key Projects

- **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 to 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. Introduction, description of the development, policy 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.
- **Planning Application for Flood Defences, Castletroy, Co Limerick - IDA Ireland**
Preparation of planning submission and statutory notices for the development of a flood defence berm and ancillary drainage works at the National Technology Park, Castletroy, Co. Limerick.
- **Barnahely Battery Storage, Ringaskiddy, Co. Cork**
Preparation of planning application and statutory notices for a battery storage facility at Barnahely, Ringaskiddy Co. Cork. Planning consent granted August 2018.
- **Masterplan Preparation - Zinc Properties**
Masterplan preparation for the redevelopment of industrial sites at Burlington, Co. Clare (2017) and the former Antigen site, Roscrea, Co. Tipperary (2018).

Key Information

Qualifications

MSc City Planning & Regeneration,
University of Glasgow, 2016

BSc Spatial Planning
Dublin Institute of Technology, 2012

Post Graduate Diploma in Urban
Development
University of Strathclyde, 2016

Professional Memberships

Graduate Member of the Irish
Planning Institute

Graduate Member of the Royal Town
Planning Institute

Employment History

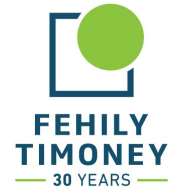
2017- Present

Fehily Timoney & Company
Graduate Planner
Project Planner



Ben O'Dwyer

Project Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE & PLANNING

Profile

Ben O'Dwyer is a Graduate 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.

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.

His 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.

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

Previous Experience

Wind Energy Project Surveying Experience

- **Bird Survey Work**

Regularly carries out VP bird surveys focused on raptors, wild fowl and wetland birds including hen harrier, whooper swan, and golden plover. Majority pre-planning; some operational windfarm surveying also undertaken. Summer & winter surveys, Dawn/Dusk Surveys. Encompassing upland, lowland, peatland and agricultural habitats. Has also carried out breeding bird surveys for a proposed windfarm during 2017 Breeding season to inform analysis of potential impacts.

Has carried out breeding moorland bird surveys consisting of walked transects in upland/moorland habitats at proposed windfarm site to inform analysis of potential impacts. Target species were Red Grouse, Snipe, Golden Plover, Hen Harrier, Merlin, Chough, White-tailed Eagle, Kestrel, Sparrowhawk & Whooper Swan.

Has also carried out Merlin surveys comprised of walked transects in upland/moorland/forestry edge habitats during breeding season at proposed windfarm site to inform analysis of potential impacts. Survey focused on both field signs and visual/aural detection. Also carried out Hen Harrier survey; walked transects along windfarm cable route under construction in close proximity to SPA monitor for presence of breeding Hen Harrier.

Bird collision monitoring surveys at Monaincha Windfarm, Co Tipperary and Barranafaddock Windfarm, Co. Waterford. Surveys required as part of planning conditions undertaken every month for first three years of operation.

- **Habitat Surveys**

Habitat surveys at Moanvane windfarm Co. Offaly and (confidential) windfarm in Co. Laois. Covered extensive areas in co-operation with other operatives surveying upland, peatland, and woodland habitats. Also carried out habitat surveys for elements of wind energy projects Galway Wind Park, Dromada windfarm Co. Limerick, and (confidential) windfarm Co. Cavan.

Key Information

Qualifications

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

Employment History

2016- Present

Fehily Timoney & Company
Graduate Ecologist

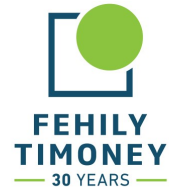
2015

Malachy Walsh & Partners, Tralee
Work Placement



Ben O'Dwyer

Project Ecologist



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE & PLANNING

- **Mammal Surveys**

Mammal surveys at Moanvane windfarm Co. Offaly and (confidential) windfarm in Co. Laois, using both field signs and trail cameras to detect the presence of terrestrial mammals.

- **Bat Surveys**

Carried out walked and driven transect surveys Monaincha windfarm Co. Tipperary, Moanvane windfarm Co. Offaly and (confidential) windfarms in Co. Laois & Co. Cavan, and emergence and stationary passive detector surveys at (confidential) windfarm in Co. Laois.

Comprehensive Project Experience

- **Wind Energy Projects**

- Confidential Windfarm Co. Laois– Summer & Winter VP surveys; Bird Survey Data Collation; Bat Surveys; Habitat Survey; Mammal Survey
- Confidential Windfarm Co. Meath – Winter VP Survey
- Confidential Windfarm Co. Kildare – Summer & Winter VP surveys; Dawn/Dusk Winter VP Survey
- Barranafaddock Windfarm – Post-Construction Collision Monitoring Survey & Scavenger Trial
- Moanvane Windfarm – Bat Survey; Bird Survey Data Collation; Habitat Surveys; Mammal Survey; Replant Lands Habitat Survey
- Meenawaun Windfarm - Pre-Construction Badger, Otter & Bat Surveys; Badger Set Exclusion & Monitoring
- Moanincha Windfarm – Post-Construction Collision Monitoring Survey; Bat Survey; Post-Construction VP Surveys
- Confidential Windfarm Co. Cork - Summer & Winter VP surveys; Breeding Birds Survey; Breeding Moorland Birds Survey; Merlin Survey
- Raragh Windfarm – Habitat Survey and Bat Survey of Cable Route
- Galway Wind Park – Doon By-pass 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 surveys

- **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.
- 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**

- Ballyogan Landfill – Aquatic Macroinvertebrate Identification & Analysis
- Dunsink Landfill – Aquatic Macroinvertebrate Identification & Analysis
- North Kerry Line – Habitat & General Ecology Surveys
- Burlington Facility - Habitat & General Ecology Surveys
- Center Parcs Gas Pipeline Route - Habitat & General Ecology Surveys
- Tipperary Town Landfill - Habitat & General Ecology Surveys, with focus on hydrological connections.



James works as a Senior Engineer for Fehily Timoney & Co (FTC). He is a Chartered Engineer and qualified Project Manager and holds a degree in Civil, Structural and Environmental Engineering from Trinity College, Dublin. He is a Chartered Member of Engineers Ireland and a member of the Project Management Institute.

He is part of the Energy and Infrastructure team at FTC. His primary area of expertise is in the planning, design and construction of water services and renewable energy projects in Ireland and the UK.

James developed much of his experience completing numerous wind farm and energy projects, water services, infrastructure and rail works. He has worked in the role of Client Project Manager, Client's Representative, Owners Engineer and as Designer. James's experience includes managing contractors, designers, stakeholders and project funders. He is an experienced project manager with proven skills in managing project costs, programming and quality control for a wide range of renewable energy and infrastructure developments. He also has significant on-site experience relating to managing projects through construction.

Key Relevant Projects

- **Drehid Wind Farm 2018**
Drehid Wind Farm is a development in Co. Kildare. FTC acted as the planning consultant for the client and project supervisor for the design stage of the project. James 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 and hydrology sections of the environmental impact assessment including a traffic impact assessment.
- **Taghart Wind Farm, 2018**
Taghart is a development in Co. Cavan. FTC acted as designer to the client, Galetech and Storm NV, for the construction of all onsite infrastructure associated with the development. James successfully project managed all aspects of the design for the project, liaising with the client management and coordinating the design team.
- **Kinegar Wind Farm, Scotland, 2017**
Kinegar is a two-turbine wind farm project in East Lothian. James acted as project manager for the client. The project was completed within a tight timeframe to meet the Renewable Obligation tariff cut-off in March 2017 and required considerable grid works along with the installation of Active Network Management in the area to control the grid connection. This was needed as the wind farm was connected beside Torness Nuclear Power station prior to local grid upgrades.
- **Red Gap Moor Wind Farm, England, 2017**
Red Gap Moor is wind farm in Hartlepool, UK. Acted as project manager for the client during the design and construction stages of the project. The project was built on undulating terrain with some large-scale earthworks and deep foundations. Site access included using a site entrance directly on to the A19. The grid works required two connections, run in parallel, which was managed directly by contracting an independent grid contractor. This project was also completed in time for the Renewable Obligation tariff deadline in 2017.
- **Airfield Wind Farm, England, 2017**
Airfield wind farm is a wind farm in Bedfordshire, England. The project included the construction of new site roads, two new substations and interconnecting grid cable. The site is located at the Santa Pod Raceway and required considerable Health & Safety design due to its location. The site lands were shared with a raceway and a live airfield used for light aircraft. Acted as project manager for the client.
- **Middle Balbeggie Wind Farm, Scotland, 2016**
Middle Balbeggie is a two-turbine wind farm in Fife, Scotland. The project included the widening of a private road, construction of site tracks, foundations and substation. The land was also used to construct a solar park adjacent the wind farm. Acted as project manager for the client for this project overseeing all aspects of the engineering, procurement and construction of the development.
- **Potato Pot Wind Farm, England, 2016**
Potato Pot is located in Cumbria, England. James acted as project manager for the client, overseeing all aspects of the engineering, procurement and construction of the development. The Potato Pot site is a backfilled opencast mine, which was previously 60m deep. The foundations at Potato Pot were built using concrete columns which has rarely been used in turbine foundation construction in the UK. This was an extremely challenging project given the nature of the site and the unique construction methods used.
- **Mossmorran Wind Farm, Scotland, 2016**
Located in Fife, Scotland, James acted as project manager for the client. This wind farm was built adjacent the Exxon Mobil Ethelene plant and required a grid cable installation which travelled through the town of Cowdenbeath.
- **East Youlstone Wind Farm, England, 2014/2015**
Located in Devon, England, James acted as project manager for the client, overseeing all aspects of the engineering, procurement and construction of the development.

Qualifications

PMP, Project Management Professional (PMI)

BAI, Civil, Structural and Environmental Engineering

BA, Mathematics

Professional Memberships

CEng MIEI (2010)

PMP Project Management Institute (2016)

Employment History

2017 – Present

Fehily Timoney & Company
Cork

2012 – 2017

Senior Project Manager
Airvolution Energy Ltd
London
UK

2011 – 2012

Project Engineer
Renewable Energy Systems
Kings Langley
UK

2010 – 2011

Civil Engineer
Wind Prospect Ireland
Dublin
Ireland

2005 – 2010

Project Engineer/Project Manager
Malachy Walsh & Partners
Consulting Engineers
Cork
Ireland

Key Relevant Projects cont'd.

- **Ysgellog Wind Farm, Wales, 2012/2013**
Located in Anglesea, Wales, James acted as project manager for the client, overseeing all aspects of the engineering, procurement and construction of the development. Ysgellog won the *Outstanding Green Energy Project* at the RUK Wales Green Energy Awards 2013 for keeping as much of the project economic benefits as possible in Anglesea during construction.
- **Llanbrynmair Wind Farm, Wales, 2011**
Part of the project team on Llanbrynmair wind farm during the planning phase. The project is within one of the Welsh Assembly Government's designated areas for wind farm developments. These were set out in the planning guidance note 'TAN8' in 2005. The project is 99MW in size and covered a large area in Powys, Mid-Wales. James acted as project engineer during the planning phase, designing roads, site layouts and access road modifications. The role also included the co-ordination of third party consultations for the scheme and consultation meetings with Powys Council, RSBP and other stakeholders, such as landowners.
- **Glenree 110kV Substation, Ireland, 2010**
The project involved the construction of a new 110kV substation, compound, building and all ancillary equipment. Acted as Clients Engineer on the project and advised the contractor on civil engineering design and provided construction management on site.
- **Carrowleagh Wind Farm, Ireland, 2010**
Wind farm project involving the installation of 16 Enercon E70 wind turbines. As Clients Engineer, provided site management and advised on all civil engineering works, including foundations.
- **Curragh Wind Farm, Ireland, 2010**
Provided construction management and acted as advisor to the Client for the duration of 18MW wind farm project, from pre-planning to completion. Site conditions were particularly challenging as the project was built on steep upland peat bog with peat depths exceeding 4m.
- **Coomacheo Wind Farm, Ireland, 2009**
Technical advisor, providing construction management and design advice to the client from construction start to completion of 41.4MW wind farm project and new 110kV substation. Part of the role also involved completing the environmental water sampling for the project.

Other Projects

- **Kenmare Water Supply, Ireland**
Kenmare Water Supply involved the provision of a new raw water and potable water main network for Kenmare town. Acted as project engineer and designed the new water network using EPANET and procured civil engineering contracts.
- **Kerry Pike Sewerage Scheme, Ireland**
Designed a new drainage (foul and storm water) network using Microdrainage and a pumping station at Kerry Pike, Co Cork. The role also involved dealing with contractor's claims and agreeing final accounts.
- **Kilcrohane Water and Wastewater Supply Schemes, Ireland**
Project Engineer for feasibility and design stage of Kilcrohane Water and Wastewater Schemes. These projects involved designing and proposing water scheme and wastewater scheme upgrades. The schemes were designed using EPANET and Microdrainage.
- **Ballyvourney Sewerage Scheme, Ireland**
Design Engineer for the wastewater network upgrade at Ballyvourney. Completed civil engineering design and project procurement for a new wastewater and stormwater drainage network, including a new pumping station in County Cork.
- **Wexford Business Park Infrastructure Upgrade Works, Ireland**
Project engineer for scheme involving the upgrading of the business park infrastructure to allow for extension. The project included provision of a new site access, extended surface and foul water networks, new broadband ducting and resurfacing.
- **Cork Business Park Infrastructure Upgrade Works, Ireland**
Project involved the upgrading of the business park infrastructure to provide a new site access junction, roundabout, new broadband ducting, resurfacing and traffic calming measures.
- **Torr Head Tidal Scheme – Northern Ireland, 2011**
Project engineer during the planning and feasibility stage. The project is a 150MW subsurface tidal scheme off the coast of Northern Ireland and involved the installation of submerged turbines capturing tidal flow. As project engineer James designed the onshore substation access road modifications along with advising on onshore substation design and connection of offshore cables to the onshore substation.
- **Bray Head Stabilisation Works, Ireland, 2010**
Project Manager for the stabilisation works to the embankment between Tunnel 3 and Tunnel 4 at Bray Head, Co. Wicklow which was at high risk of collapse.
- **Fontenoy Terrace Stabilisation Works, Ireland, 2010**
Project Manager for the stabilisation works to a rail embankment behind a street of housing in Bray, Co Wicklow. The street was located below the DART rail line, south of Dublin, which was at high risk of collapse. Duties included arranging isolation and handover of the rail line from Irish Rail.



Donna O'Halloran

Project Scientist



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

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, (pre planning 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



Conor Hughes

Graduate Engineer



CONSULTANTS IN ENGINEERING
& ENVIRONMENTAL SCIENCES

Profile

Conor works as a Graduate Engineer with Fehily Timoney and Company as part of the Energy and Planning Department.

Key Skills

- Traffic Management
- Surveying
- Geotechnical Engineering
- Time Management
- Report Writing
- Customer Service
- Planning Applications
- Organisation

Previous Experience Essentials for This Project

Engineering Internship Fehily Timoney and Company

During his internship in Fehily Timoney & Company, he specialised in Traffic Impact Assessments and was able to contribute to some major projects. Some of the major projects he worked on include:

- Dunkettle Interchange Upgrade
- Coom Green Energy Park
- Enniscorthy Residential Development
- Carragraigue Solar Farm Development
- Kilbarry Residential and Solar PV Development
- Extension to Waterford Airport
- Flood Mitigation of IDA local Bank at NTP Ireland.

Key Information

Qualifications

Honours Degree Civil, Structural and Environmental Engineering, University College Cork, 2019

Safe Pass, Chris Mee Group, Little Island, Co. Cork 2008

Employment History

2019- Present

Fehily Timoney & Company
Graduate Engineer

May – August 2018

Fehily Timoney & Company
Engineering Internship

Personal Information

Name	Dr. William O'Connor
Company Address	Tait Business Centre, Dominic Street, Limerick City, Ireland
Phone	+353 (0)61 419477
Mobile	+353 (0)87 2065574
Fax	+353 (0)61 414315
E-mail	william.oconnor@ecofact.ie
Nationality	Irish
Position	Managing Director / Principal Ecologist



Education & Training

2003	PhD Degree in Zoology
Thesis title	Biology and Management of European Eel (<i>Anguilla anguilla</i> , L.) in the Shannon Estuary, Ireland
Institution	National University of Ireland, Galway
1992	MSc degree in Applied Hydrobiology
Thesis title	Multivariate Analyses of River Algae & Water Chemistry data
Institution	University of Wales, College of Cardiff
1990	BSc degree in Marine Science
Institution	National University of Ireland, Galway

Professional Affiliations

Fellow of the Royal Society of Biology
Member of the Chartered Institute of Ecology and Environmental Management
Chartered Member of the Society of the Environment
Chartered Member of the Institute of Fisheries Management)

Personal Profile

Dr. William O'Connor is a Senior Ecologist who has over 25 year's professional ecological management experience. He is a graduate of the University of Wales, Cardiff where he was awarded an MSc degree in Applied Hydrobiology, and the National University of Ireland, Galway where he received a PhD degree in Zoology. He is a Fellow of the Royal Society of Biology and a full member of both the Chartered Institute of Ecology and Environmental Management, and the Institute of Fisheries Management. He is a Chartered Biologist and a Chartered Environmentalist. He was employed as Senior Biologist with the ESB during the period 1992-1998, and has been working as a private consultant since 1999.

William has extensive ecology survey experience in aquatic, terrestrial and marine habitats. He has managed numerous large-scale ecology projects, including national infrastructure EIA studies. William has operated in a professional consultancy capacity for a number of national statutory bodies including the National Parks and Wildlife Service (NPWS), Irish Water, Office of Public Works, Environmental Protection Agency, Northern Ireland Environment Agency, Waterways Ireland and the National Roads Authority. He has undertaken major national surveys of protected species on behalf of NPWS. He is on the Heritage Council Bat Expert Panel and has held numerous wildlife licences for bats, otters, badgers, birds, fish species, freshwater pearl mussel, and marsh fritillary.

William has extensive experience in Appropriate Assessment and the preparation of Flora and Fauna sections of EISs. Indeed, he has undertaken over 500+ ecological assessments relating to projects such as wind farms, national road schemes, waste water treatment plants, water supply schemes, renewable energy developments, flood alleviation schemes and private developments.

Personal Skills & Competences

Mother tongue(s)	English
Key Competences	<ul style="list-style-type: none"> - Aquatic ecology including freshwater biological assessment, macroinvertebrate identification, estuarine ecology and intertidal/marine ecology - Protected species surveys: mitigation and management - Terrestrial fauna surveys including bird surveys, bat surveys and non-volant mammal surveys - Wildlife mitigation - Appropriate Assessment and Ecological Impact Assessment
Project Experience	<ul style="list-style-type: none"> - During the period 1992 – 1999, Dr. William O’ Connor was employed with ESB Fisheries Conservation as Senior Biologist. Responsibilities included co-ordination of River Shannon Salmon Restoration and Eel Management Programmes; the largest programmes of their type in Europe at the time. - Managing Director and Principle Ecologist of large independent ecological consultancy since 1999. - Environmental Impact Assessment (EIA) and Ecological Impact Assessment (EclA) including mitigation and monitoring of impacts to protected aquatic and terrestrial flora and fauna on a variety of public and private developments - Freshwater biological assessments, ecological surveys, electrical fishing surveys, monitoring and restoration projects in river and lake systems
Technical Skills & Competences	<ul style="list-style-type: none"> - Fisheries surveys, fisheries management and impact assessments - Terrestrial ecological survey including habitat mapping, bird surveys, non-volant mammal surveys and Bat surveys - Marine, estuarine and freshwater biological surveys utilising a range of sampling methodologies - Competent powerboat handling skills - Experience as a scientific diver (scuba) for aquaculture audits, marine environmental surveys and marine ecological surveys - GIS / Habitat Mapping - Statistics and Biometry - Photography

Kate Robb BA MA Dip. EIA/SEA Mgmt. MIAI

Senior Archaeologist & EIA Consultant

Professional Qualifications

Bachelor of Arts (Hons.), Archaeology & English, National University of Ireland, Galway, 1999

Master of Arts (Hons.), Archaeology, National University of Ireland, Galway, 2001

Diploma EIA/SEA Management, University College Dublin, 2005

Career Profile

July 2018 – Present

John Cronin & Associates

Senior Archaeologist & EIA Consultant

May 2013 – June 2018

John Cronin & Associates

(Freelance) Archaeologist & Heritage Consultant

Sep 2011 – April 2013

John Cronin & Associates

Senior Archaeologist & Heritage Consultant

Jan 2009 – Aug 2011

John Cronin & Associates

Operational Director (Buncrana)

July 2003 – Jan, 2009

John Cronin & Associates

Senior Archaeologist

Feb 2002 – April 2003

Rural Payments Agency (RPA), Reading, Berkshire

Executive Officer (Manager)

Academic years 1999 – 2001

Dept. of Archaeology, NUI Galway

University Tutor

Relevant Experience

Kate is a fully qualified archaeologist and EIA/SEA consultant and has both project-managed and conducted the cultural heritage environmental assessment (incl. visual impact) of numerous large-scale infrastructural schemes for JCA. Recently she has coordinated and prepared an **EIA (Cultural Heritage) evaluation**, including a consultation (submission) review, on behalf of Tipperary County Council regarding a proposed windfarm extension and related works at **Upperchurch, Co. Tipperary**.

Kate is currently project-managing the Cultural Heritage **option assessment stage for the Trans-European Transport Network (TEN-T) in Donegal** (consisting of three National Primary Roads N13, N14 and part of the N15 on behalf of TII and Donegal County Council); as well as currently preparing the **EIAR (Cultural Heritage) chapter** for the **Raphoe Flood Relief Scheme, Co. Donegal**. Kate has also recently completed a **Heritage Impact Assessment (ICOMOS)** for a water pipeline replacement scheme within the confines of UNESCO World Heritage Site **Brú na Bóinne**.

Kate fully co-ordinated JCA's appointment as **expert archaeological consultant (Client Representative) for the A4/A5 Road Corridor Improvements Scheme** and project-managed the Tender Specifications, Archaeological Investigations and Contractual obligations and procedures for the road routes prior to, during and post-construction. Kate also **project managed** intensive on-site linear road scheme archaeological works for the **A2 Maydown to City of Derry Airport Scheme** which included a substantial JCA team of on-site personnel for **archaeological site monitoring, testing, excavation and post-excavation programmes**.

Kate was also responsible for JCA's project management, co-ordination, surveying, entry editing and Client liaison for the **National Inventory of Architectural Heritage (NIAH)** (South Donegal; Inishowen; Letterkenny & Rathmelton; and Monaghan (Urban) inventories).

In addition to development-led projects, Kate has played a key role in the writing of heritage policy for various clients including:

- the management of Ireland's inland waterways: **Lough Ree Waterways Corridor Management Plan & Lough Allen and the Upper Shannon Waterways Corridor Management Plan**, on behalf of the Heritage Council and Waterways Ireland;
- and the **impacts of rural housing** in the Irish countryside on behalf of the **Heritage Council**.

Furthermore, she has previously undertaken a full **Strategic Environmental Assessment of the Dundalk South-West Local Area Plan** on behalf of Louth County Council; and have reviewed Cultural Heritage Baseline Conditions for the **SEA of the Northern Gateway Area Action Plan (NGAAP)**, Killarney, Co. Kerry (Killarney Town Council).

Kate has been integrally involved in several projects commissioned by a wide Client base for JCA including:

- **‘Foyle Valley Landscape Project’** (Foyle Civic Trust) which consisted of a heritage audit of all built and natural heritage items located within both Northern Ireland and County Donegal with a view to aid the interpretation the development of the identified Landscape Character Areas over time and categorization of same into Historic Landscape Units. The final output of this project was a publically accessible document for the general public with a range of recommendations for future opportunities including that for the tourism industry.
- **A series of projects for Donegal County Council including:**
 - Condition Survey of Historic Graveyards in Guardianship of Donegal County Council*
 - A Study of Booley Sites in County Donegal*
 - A Study of Mills and Mill Sites in County Donegal*
 - A Survey of Clachans in County Donegal*
 - Settings of Historic Buildings, Associated Structures & Traditional Landscape Character: A Project to Raise Awareness and Encourage Conservation in County Donegal*
- Conservation Plans and Environmental Impact Assessments of some of the major country houses in Ireland – **Blarney Castle, Dunkettle House & Carrigglas House** – on behalf of various private developers.

In addition, Kate has **project managed** a diverse range of numerous schemes for JCA across Rep. of Ireland and Northern Ireland including:

- **Feasibility, baseline studies and EIAR** of various major infrastructural road projects and service-based projects such as gas pipelines, wind farms, waste-water treatment plants, waste facilities, NW Regional Waste Management Project; and development-led projects such as quarries, golf courses and residential developments.
- **Archaeological site monitoring, testing, excavation and post-excavation programmes** throughout the country including large scale excavations (and post-excavation) on the A29 Carland Bridge Realignment Scheme and development lands at Bashfordlands, Carrickfergus.
- Numerous **Architectural Heritage Impact Assessment** and **Architectural Heritage Building Appraisals** throughout Ireland.
- **Archaeological Visual Impact Assessments** for a wide range of various residential developments, windfarms and electricity lines.

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.

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.

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 15 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 six SID projects and has considerable oral hearing expert witness experience.

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. He has also delivered guest lectures to the University College Dublin professional course in EIA Management in relation to LVIA.

Key Projects

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

90+ Wind Energy Proposals

These include 7 SID projects (Shragh / Yellow River / Emlagh / Maighne / Castletownmoor / Cluddaun / Derryadd)

80+ Solar Energy Proposals

Curriculum Vitae



Kathryn Robson MSc GradCIEEM

Environmental Consultant - Ecology

Suite 6, The Mall, Beacon Court, Sandyford, Dublin 18, Ireland, D18 83W8

Kathryn is based in Natural Power's Dublin office. She is a qualified ecologist with over 3 years professional experience in the environmental consultancy sector. Her project experience during this time includes 10 terrestrial wind farms and over 30 residential projects. Kathryn has been responsible for project management, ecological survey design, conducting surveys, client liaison and reporting. She is fully competent in undertaking a range of field surveys, specifically bat surveys. She holds an MSc in Ecological Management and Conservation Biology from Queens University Belfast and is a member of the Chartered Institute of Ecology and Environmental Management.

Professional Experience

Ecologist – Natural Power (March 2019 - Present)

Project management of onshore wind farm sites. Report writing, data management and analysis of ecological field data from onshore and offshore wind farm sites throughout Ireland. Ecological surveys for scoping, pre-construction and post-construction monitoring of onshore wind farm sites. Assist with the preparation of tenders.

Graduate Ecologist – Natural Power (2018 - 2019)

Assist with report writing, data management and analysis of ecological field data from onshore and offshore wind farm sites throughout the Ireland. Ecological surveys for scoping, pre-construction and post-construction monitoring of onshore wind farm sites.

Ecologist – Focus Ecology (2016 - 2018)

Project management and client liaison for a variety of residential development projects in England and Wales. Analysis of ecological field data, data management and report writing. Ecological surveys and environmental clerk of works audits. Hold Natural England European Protected Species licences: Bats (Level 1), Great Crested Newts (Level 1).

Field Ecologist – NM Ecology (2015)

Conducted baseline ecology surveys (bats and smooth newts).

Education

MSc Environmental Management and Conservation Biology
Queens University Belfast
2014 – 2015

BSc (Hons) Biological Science
Queens University Belfast
2011 - 2014

Market Sectors

Onshore wind energy
Residential development
Transport infrastructure

Site Experience

Ireland
Northern Ireland
England
Wales

Previous Employers

Focus Ecology
NM Ecology

Curriculum Vitae

Languages

English

Key Skills & Experience

- Over three years experience in the environmental consultancy sector
- Particular experience in conducting a range of bat surveys including static detector surveys, preliminary roost assessments, dusk emergence / dawn return roost surveys and transect surveys.
- Safe Pass Card holder
- First Aid certificate

Project Experience

Year	Client	Project Name	Location	Project Scope	Project Role
2019	NTR	Ora More Wind Farm	Co. Fermanagh	Post-construction ecology monitoring	Ecology Project Manager/ Ecologist
2019	B & R Wind	Boolard Wind Farm	Co. Cork	Environmental Clerk of Works	Environmental Clerk of Works
2018 and ongoing	NTR	Teevurcher Wind Farm	Co. Meath	Post-construction ecology monitoring	Ecology Project Manager/ Ecologist
2018 and ongoing	Statkraft Ireland Ltd	Dernacart Wind Farm	Co. Laois	Baseline ecology surveys	Ecology Project Manager/ Ecologist
2018 ongoing	E.ON	Airborne	Co. Mayo	Pre-construction ecology surveys	Ecologist
2018 ongoing	NTR	Bunnyconnellan Wind Farm	Co. Mayo	Pre-construction ecology surveys	Ecologist
2018 ongoing	Greencoat Renewables	Glanaruddery Wind Farm	Co. Kerry	Post construction ornithological monitoring	Ecology Project Manager/ Ecologist
2018 ongoing	Element Power Ireland Ltd	Meenwaun Wind Farm	Co. Offaly	Post construction ornithological monitoring	Ecology Project Manager/ Ecologist
2018	EnergieKontor UK Ltd	Longhill Burn Wind Farm	West Lothian	Reporting (Environmental Impact Assessment report - ecology chapter)	Ecologist
2018	EnergieKontor UK Ltd	Glenshimmeroch Wind Farm	Dumfries & Galloway	Reporting (Environmental Impact Assessment report - ecology chapter)	Ecologist
2015	Island Renewable Energy	Ballynagilly Wind Farm	Co. Tyrone	Baseline ecological surveys	Field Ecologist