

## **Appendix 1.6**

### **EIA Team Competencies**

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Role and EIAR Input	Name	Company	No. years of experience	Professional Qualifications and Relevant Expertise	Professional Affiliations
<b>EIA Manager, Ch 1 Introduction, Ch 3 Alternatives, Ch 6 Population and Human Health, Ch 15 Material Assets, Ch 17 Cumulative Effects, Other Effects and Interactions. Ch 18 Summary of Mitigation Measures and Residual Effects</b>	Fiona Patterson	Arup	18	<p>Bachelor of Science (BSc) (Hons) Earth Science, University College Cork, (1997); Master of Science (MSc) Environmental Engineering, Queens University Belfast (1998); Diploma Field Ecology, University College Cork (2016); Advanced Diploma in Planning and Environmental Law, King's Inns (2018).</p> <p>Fiona is a senior environmental consultant with experience in delivering environmental advisory services on projects in a variety of sectors, including highways, rail, energy, water, wastewater, education, manufacturing and commercial/residential. Relevant projects include N6 Galway City Ring Road EIAR (2018) and Indaver Resource Recovery Centre EIS (2016).</p>	Affiliate member of Institute of Environmental Management and Assessment (IEMA)
<b>EIA Coordinator</b>	Alexandra Fleming	Arup	4	<p>BSc Environmental Science, National University of Ireland, Galway (2010) MSc Environmental Consulting, Newcastle University (2014)</p> <p>Alexandra is an Environmental Consultant with experience working on EIARs in a number of areas including water, manufacturing and residential/commercial developments. Relevant projects include Indaver Resource Recovery Centre EIS (2016) and Eli Lilly IE43 Extension EIS (2016).</p>	

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<b>Ch 2 Planning Policy &amp; Need for the Scheme</b>	Jackie Keaney	Indaver	19	<p>BSc Environmental Science, University College Dublin, 1996; MSc Environmental Studies, Trinity College Dublin, 1998.</p> <p>Jackie is the Commercial Director of Indaver and has worked on most of Indaver's EIA projects starting with the EIA for Duleek in 2000. Jackie has been to the forefront in advocating for policy changes at EU and at national level in the field of waste management and sustainability for almost 20 years. Jackie has been an employee of Indaver since March 1998.</p>	
<b>Ch 2 Planning Policy &amp; Need for the Scheme</b>	Aiden O'Neill	Coakley O'Neill Town Planning	23 years	<p>BSc(Hons) Environmental Planning, Queen's University Belfast, 1993 Postgraduate Diploma Town and County Planning, Queen's University Belfast, 1994</p> <p>Aiden is a Director of Coakley O'Neill Town Planning Ltd, established in Cork in February 2010, and has over 23 years' experience in the public and private sectors in UK and Ireland. Aiden has advised on a number of complex commercial, infrastructural, industrial and urban development projects, including metal recycling developments in Cork and Dublin, as well as the Ringaskiddy Resource Recovery Centre.</p>	Corporate Member of the Irish Planning Institute
<b>Ch 2 Planning Policy &amp; Need for the Scheme</b>	Julie Bowe	Indaver	11 years	<p>LLB Law &amp; European Studies, UL, 1998 LLM Masters in Commercial Law, UCD, 2003 New York State Bar, 2006 Barrister-at-law Degree, Kings Inns 2008</p> <p>Julie is Legal Counsel with Indaver and has assisted with the preparation of legal aspects of the present EIAR Report and more generally with Indaver's business development projects in Ireland and other jurisdictions. Julie has previously worked for Eunomia Research &amp; Consulting and was responsible for conducting Compliance Assessments on behalf of DG Environment of the European Commission including legal analysis of the EU environmental acquis of the Former Republic of Macedonia regarding the country's proposed accession to the EU. Julie has been an employee of Indaver since March 2017.</p>	

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<b>Ch 3 Alternatives</b>	John Ahern	Indaver	24 Years	<p>BE (Chem) UCD, 1980 Chartered Director, Institute of Directors, IoD Chartered Engineer, Institute of Engineers Ireland, IEI</p> <p>John has been a regional Director of Indaver Ireland UK for 24 years and has led all of Indaver's waste developments in Ireland and the UK for that time.</p> <p>Prior to joining Indaver John worked for Flogas for 15 years and developed a number of its LPG plants in Ireland and the UK.</p>	
<b>Ch 4 Description of Proposed Development</b> <b>Ch 5 Construction Strategy</b>	Conor Jones	Indaver	18 years	<p>BE (Chem), UCD, 1996</p> <p>Conor is the Regional Engineering Director of Indaver and has worked on most of Indaver's EIA projects from both a planning and industrial licensing perspective starting with the initial EIA for the Ringaskiddy project in 2001. Conor has been an employee of Indaver since January 1999 and was Plant Manager at Indaver's Duleek Waste to Energy plant from 2014 to 2016</p>	
<b>Ch 6 Population and Human Health</b>	Martin Hogan	CHI	32	<p>MB BCh BAO UCC 1987, MRCGP 1992, FRCPI 2008, FFOM (RCPI) 2000, AFOM (RCPI Lond)</p> <p>Martin is a Consultant Occupational &amp; Environmental Physician for 25 years. He is Managing Director of CHI (Cork) and has been involved in Environmental Impact Assessments for 23 years.</p>	<p>Faculty of Occupational Medicine Royal College of Physicians of Ireland</p>

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<b>Ch 7 Roads and Traffic</b>	Niall Harte	Arup		<p>BE, University College Cork (2001) Designing for Safety – Safety, Health and Welfare at Work (Construction) Regulations 2013, CMSE, April 2014</p> <p>Niall Harte is an Arup Associate with 18 years' experience in Roads and Transportation Engineering and Consultancy, including 4 years' experience of Road &amp; Civil Construction. This includes project managing the design and delivery of Green Route, Public Transport Priority and Cycle Network schemes in Cork and Limerick cities, the design of Route Signage Schemes, VMS and PGS improvements, and Traffic Signalised installations in both Cork and Limerick. Niall has also fulfilled the role of Lead Witness on a number of significant projects including the Indaver's Ringaskiddy Resource Recovery Centre, the Apple Data Centre in Athenry and the North Meath Wind Farm.</p>	Chartered Member of the Institution of Engineers of Ireland 2009
<b>Ch 7 Roads and Traffic</b>	Clifford Killeen	Arup	14	<p>BEng, Civil (Hons), University College Cork, 2004 Chartered Engineer (accredited 2014)</p> <p>Clifford is a Senior Engineer within the Arup Transportation &amp; Urban Design Team, with 14 years' experience in transportation including planning, design and analysis. Relevant project experience includes a number of analysis studies of the N28 and N40 road networks and junctions, and preparation of the Indaver EIAR Traffic Assessment for the Resource Recovery Centre 2016 application.</p>	Chartered Engineer, Member of Engineers Ireland
<b>Ch 8 Air Quality; Ch 9 Climate.</b>	Dr Edward Porter	AWN Consulting	20	<p>BSc (Hons) Chemistry, 1<sup>st</sup> Class, University of Sussex PhD Environmental Chemistry (Air Quality), University College Dublin,</p> <p>Edward is Director of Air Quality &amp; Climate team with the AWN Consulting in Dublin. Edward has worked on a numerous air quality projects in the areas of industrial licensing and development. Edward is lead author of the EPA publication "Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)" and has peer reviewed the NRA Air Quality Guidelines (NRA, 2006). He specialises in the fields of ambient air quality, odour assessment, climate impacts and air dispersion modelling.</p>	Full Member of the Institute of Environmental Sciences (MIEnvSc), a Full Member of the Institute of Air Quality Managements (MIAQM) and is a Chartered Chemist (C Chem MRSC)

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<b>Ch 10 Noise and Vibration;</b>	Jennifer Harmon	AWN Consulting	17	<p>BSc (Hons) Environmental Science, Ulster University, 1999 Diploma Acoustics and Noise Control, Institute of Acoustics, 2002</p> <p>Jennifer is a senior acoustic consultant with AWN Consulting. She has extensive experience in the preparation of noise and vibration impact assessments for a wide range of infrastructural, industrial, commercial and residential developments across Ireland and has provided expert witness at over 20 planning hearings relating to noise impact assessment.</p>	MIOA
<b>Ch 11 Landscape and Visual;</b>	John Kelly	Brady Shipman Martin	25	<p>Bachelor of Science (BArch) 1991, University College Dublin.</p> <p>John is a qualified architect and Managing Partner at Brady Shipman Martin, specialising in landscape, planning and environmental consultancy. John has over 25 years' experience in the fields of Landscape and Visual Assessment and of Accurate Visual Representation of developments and strategic infrastructure developments in both urban and rural environments across all sectors including:</p> <ul style="list-style-type: none"> <li>• waste management, including waste to energy.</li> <li>• industrial and pharmaceutical water and waste water projects.</li> <li>• power generation, including renewables, and transmission.</li> <li>• transport infrastructure, including airports, road, rail, light rail, bus and cycling.</li> <li>• urban development – individual development and master planning tourism and leisure.</li> </ul>	MRIAI

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<b>Ch 12 Biodiversity</b>	Carl Dixon	DixonBrosnan	20	<p>BSc Applied Ecology, University College Cork MSc Ecology, University College Cork.</p> <p>Carl has completed biodiversity chapters for EIA/EIAR for a range of projects including large scale infrastructural projects. Examples include Indaver Waste-to-Energy Project, Shannon LNG Project, Skibbereen Flood Relief Scheme, Upgrade to Mallow WWTP, Greenlink Ireland Wales Electrical Connector. Smaller projects include ecological assessments for quarries, industrial facilities, pig units, housing developments etc.</p> <p>DixonBrosnan have particular expertise in freshwater ecology, mammal and bird surveys, habitat mapping and surveys for invasive species.</p>	
<b>Ch 13 Soils, Geology, Hydrology, Hydrogeology and Coastal Recession.</b>	Joanna O'Brien	Arup	37	<p>(BE) Civil Engineering, University College Cork (1980), Masters (MEngSc) Geotechnical Engineering, University College Cork (1990)</p> <p>Joanna was Associated Director with Arup and headed up the Geotechnical team in the Cork Office from 1990-2017. Joanna has completed a number of international secondments abroad, including London (1988-91, 2012), Hong Kong (1993-96), Bangkok (1998), Brisbane and Melbourne (2009) and Newfoundland, Canada (2012-13).</p> <p>Between 1980 and 1990, Joanna worked as a civil/structural engineer and since 1990 specialised in geotechnical engineering design. Joanna has been involved in the geotechnical engineering design of numerous projects in the Ringaskiddy area since 1989.</p>	C Eng IStructE

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<b>Ch 13 Soils, Geology, Hydrology, Hydrogeology and Coastal Recession</b>	Julie Ascoop	Arup	24	<p>MSc, Civil Engineering, Delft University of Technology (1994)</p> <p>Julie Ascoop is an Associate Director, maritime business leader in Arup Ireland and maritime skills leader for Arup-Europe. Julie is a chartered Civil Engineer and has over 24 years working experience as a maritime engineer, working with both consultants and contractors in Ireland, the Netherlands and Germany. She has extensive experience in the project management, design and construction of maritime projects, such as port developments, dredging projects, marine infrastructure (locks, storm surge barriers, bridges), coastal protection and ocean energy developments.</p>	<p>CEng, Chartered Engineer (2006)</p> <p>Member of the Institute of Engineers Ireland (IEI)</p> <p>Member of the Royal Dutch Institute of Engineers (KIVI)</p> <p>Member of the World Association for Waterborne Transport Infrastructure (PIANC)</p>
<b>Ch 13 Soils, Geology, Hydrology, Hydrogeology and Coastal Recession</b>	Ken Leahy	Arup	20	<p>B.E. (Hon.) (Civil &amp; Environmental Engineering), University College Cork – 1998</p> <p>Dip CL (Distinction), (Construction Law &amp; Contract Administration), Trinity College Dublin – 2004</p> <p>Ken leads Arup's Flood Risk Assessment and Management (FRAM) business in Ireland. Ken is a Chartered Engineer, working with Arup since 1998. He has gained significant experience in multidisciplinary project management, design and contract administration. Ken's strong management and people skills have enabled him to lead large teams of specialists in the successful delivery of numerous civil infrastructure projects.</p> <p>Ken is currently Project Manager for the Lower Lee (Cork City) Flood Relief Scheme, which will be the largest single flood relief scheme ever to be implemented in Ireland. Ken is also Project Manager for a number of other major flood relief schemes including the Mallow Flood Relief Scheme which has recently reached Substantial Completion.</p>	<p>Chartered Member of Engineers Ireland 2004</p> <p>Chartered Member of the Institute of Civil Engineers 2014</p>



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<p><b>Ch 14 Archaeology, Architectural and Cultural Heritage</b></p>	<p>Avril Purcell</p>	<p>Lane Purcell Archaeology (LPA)</p>	<p>22</p>	<p>BA Archaeology and History, NUI Cork, 1992. MA Archaeology, NUI Cork, 1994. Licence eligible by National Monuments Service since 1997</p> <p>Avril Purcell is the director of LPA and is a licensed archaeologist with over twenty years of experience in research, consultancy, surveying and excavation. Avril has been involved in a large number of diverse EIAR projects throughout the country. In some cases, her involvement has been from the initial constraint study stage through pre-development investigations, resolution and construction.</p> <p>Avril has compiled the archaeological, architectural and cultural heritage assessments for numerous EIAR projects including pipelines, roads, waste-water treatment plants, recreational and industrial facilities, wind and alternative energy projects.</p>	<p>Member of the Institute of Archaeologists of Ireland (MIAI)</p>
<p><b>Ch 16 Major Accidents and Disasters</b></p>	<p>Thomas Leonard</p>	<p>Byrne Ó'Cléirigh</p>	<p>23 years</p>	<p>BE (Chem) UCD 1992 MEngSc UCD 1995 Chartered Engineer</p> <p>Thomas (Tom) Leonard is a Partner at Byrne Ó'Cléirigh with 23 years' experience of assisting industries in the area of risk assessment and environmental protection. He has a long track record of providing consultancy support and conducting risk assessments for companies across a wide range of sectors including oil &amp; gas, pharmaceutical, waste management, food &amp; drink and logistics companies.</p>	<p>Chartered Engineer</p> <p>Member of Engineers Ireland (MIEI)</p> <p>Member of the Fire &amp; Safety Committee at Engineers Ireland.</p>