REFERENCES

1. Introduction

Bitpower (November 2021). Ireland's Data Hosting Industry – Biannual Report

Central Statistics Office (2026) Metered Electricity Consumption 2025/2024 Available at: https://www.cso.ie/en/releasesandpublications/ep/p-mec/meteredelectricityconsumption2025/

Coolglass Wind Farm Limited v. An Bord Pleanála [2025] IEHC 1 https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2025/20250110_88777_judgment.pdf

Department of Climate, Energy and the Environment (2025) Climate Action Plan 2025

Department of Communications, Climate Action & Environment (2021). Climate Action Plan 2021

Department of Communications, Climate Action & Environment (2022). Climate Action Plan 2023

Department of Communications, Climate Action & Environment (2023). Climate Action Plan 2024

Department of Communications, Energy & Natural Resources (2014). Draft Bioenergy Plan 2014.

Department of Communications, Energy & Natural Resources (2015). Ireland's Transition to a Low Carbon Energy Future 2015-2030.

Department of Environment, Climate and Communications (2021) Renewable Electricity Support Scheme Good Practice Principles Handbook for Community Benefit Funds

Department of Environment, Climate and Communications (2021). Climate Action and Low Carbon Development (Amendment) Bill 2021.

Department of Environment, Climate and Communications (2025) Rulebook for Community Benefit Funds under RESS

Department of Housing, Planning and Local Government (2013) Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review. DHPLG, Dublin.

Department of Housing, Planning and Local Government (August 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. DHPLG, Dublin.

Department of Housing, Planning and Local Government (December 2019) Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach. DHPLG, Dublin.

Department of Public Expenditure and Reform (DPER) (2013). Future Expenditure Risks associated with Climate Change/Climate Finance.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities. DoEHLG, Dublin.

EirGrid (October 2022) All Island Generation Capacity Statement 2022-2031.

Environment Protection Agency (2024) Ireland's State of the Environment Report 2024. Available at: https://www.epa.ie/publications/monitoring–assessment/assessment/state-of-the-environment/irelands-state-of-the-environment-report-2024.php

Environment Protection Agency (2026) Ireland Greenhouse Gas Emissions Projections 2025-2030

Environmental Protection Agency (2002) Guidelines on Information to be Contained in Environmental Impact Statements. EPA, Wexford.

Environmental Protection Agency (2003) Advice Notes on Current Practice in the Preparation of Environmental Impact Statements. EPA, Wexford.

Environmental Protection Agency (2020): Ireland's Environment 2020 – An Assessment.

Environmental Protection Agency (2025): Air Quality in Ireland 2024.

Environmental Protection Agency (2026): Ireland's Provisional Greenhouse Gas Emissions 1990-2025.

Environmental Protection Agency (May 2022): Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. EPA, Wexford.

Environmental Protection Agency (September 2015): Draft - Advice Notes on Current Practice (in the preparation on Environmental Impact Statements). EPA, Wexford.

European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report.

European Commission (March 2022) REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. Brussels. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

European Commission (March 2022) REPowerEU: Joint European Action for more affordable, secure and sustainable energy. Strasbourg. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

European Environmental Agency (2022): Air Quality in Europe – 2022 Report

European Environmental Agency (2026) Europe Air Quality Status 2026 Briefing Note

European Union (1992). Directive 92/43/EEC. European Parliament and European Council.

European Union (2009). Directive 2009/147/EC. European Parliament and European Council.

European Union (2011). Directive 2011/92/EU. European Parliament and European Council.

European Union (2014). Directive 2014/52/EU. European Parliament and European Council.

European Union (2017) Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2017) Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2017) Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2018). Directive 2018/2009/EU. European Parliament and European Council.

Government of Ireland (2021). National Development Plan 2021-2030.

Government of Ireland (April 2022). National Energy Security Framework (NESF).

IEA (2025), Renewables 2025, IEA, Paris

IPCC Fifth Assessment Synthesis Report (2014). Intergovernmental Panel on Climate Change AR5 Report.

IPCC, 2021: Climate Change 2021: The Physical Science Basis. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.

IPCC, 2022: Climate Change 2022: Impacts, Adaptation and Vulnerability. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.

IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.

IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

Ireland Wind Energy Association (2015). Data Centre Implications for Energy Use in Ireland

IRENA (2023), IRENA's energy transition support to strengthen climate action: Insight to impact 2023, International Renewable Energy Agency, Abu Dhabi.

IRENA (2024) 2023 Year in Review: Climate-driven Global Renewable Energy Potential Resources and Energy Demand Available at: https://wmo.int/publication-series/2023-year-review-climate-driven-global-renewable-energy-potential-resources-and-energy-demand

Irish Statute Book (2000). Planning and Development Acts 2000 to 2019. Stationery Office, Dublin.

Irish Statute Book (2001). Planning and Development Regulations (as amended) S.I. No. 600 of 2001. Stationery Office, Dublin.

Irish Statute Book (2018). European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

Joint Committee on Climate Action (March 2019). Climate Change: A Cross- Party Consensus for Action

MaREI (2021) Our Climate Neutral Future: Zero by 2050. Available at: https://www.marei.ie/wp-content/uploads/2021/03/Our-Climate-Neutral-Future-Zero-by-50-Skillnet-Report-March-2021-Final-2.pdf

Pöyry & Element Energy (2015) Potential CCS Cost Reduction Mechanisms Summary

Pöyry (March 2014). The Value of Wind Energy to Ireland.

Sustainable Energy Authority of Ireland (2016) Energy Security in Ireland

Sustainable Energy Authority of Ireland (April 2016): Ireland's Energy Targets – Progress, Ambitions & Impacts.

Sustainable Energy Authority of Ireland (August 2025) Ireland's Energy Supply & Security of Supply in 2024

Sustainable Energy Authority of Ireland (December 2022): Ireland's energy-related CO2 emissions heading in wrong direction. http://www.seai.ie/News_Events/Press_Releases/2014/Biomass-is-a-big-part-of-the-solution-but-not-the-whole-solution.html

Sustainable Energy Authority of Ireland (December 2025) Energy in Ireland – 2025 Report.

Sustainable Energy Authority of Ireland (July 2024) Ireland's Energy Supply & Security of Supply in 2023 Part B – Supply & Security Statistics

Sustainable Energy Authority of Ireland (July 2026) First Look: Irelands Energy Supply and Security of Supply 2025

Sustainable Energy Authority of Ireland (May 2026) Interim National Energy Balance for 2025, SEAI, Ireland. Available at: https://www.seai.ie/data-and-insights/seai-statistics/key-publications/national-energy-balance

Sustainable Energy Authority of Ireland (September 2025) National Energy Projections – 2025 Report

WEI (2025) Wind energy saved Ireland over €1.2 billion on gas in 2024, WEI, Ireland. Available at: https://windenergyireland.com/latest-news/7836-wind-energy-saved-ireland-over-1-2-billion-on-gas-in-2024

Wind Energy Ireland (April 2021). Economic Impact of Onshore Wind in Ireland.

World Meteorological Organisation (2026) State of the Global Climate 2025

2. Background to the Proposed Project

'*Fit for 55*': delivering the EU's 2030 Climate Target on the way to climate neutrality (European Economic and Social Committee, July 2021). Available at: https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/fit-55-delivering-eus-2030-climate-target-way-climate-neutrality

Bord Na Mona (2011) Strategic Framework for the Future use of Peatlands

Climate Action Plan 2023 (Department of Climate, Energy and the Environment, December 2022). Available at: https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-plan-2023/

Climate Action Plan 2024 (Department of Climate, Energy and the Environment, December 2023). Available at: https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-plan-2024/

Climate Action Plan 2025 (Department of Climate, Energy and the Environment, May 2025). Available at: https://assets.gov.ie/static/documents/Climate_Action_Plan_2025_updated_cover.pdf

Climate Change 2021 'The Physical Science Basis' (Intergovernmental Panel on Climate Change, August 2021). Available at: https://www.ipcc.ch/report/ar6/wg1/

Climate Change 2023 Synthesis Report (Intergovernmental Panel on Climate Change, March 2023). Available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_FullVolume.pdf

Climate Change Advisory Council (2021) Climate Budget Technical Report. Available at: https://www.climatecouncil.ie/media/climatechangeadvisorycouncil/Technical%20report%20on%20carbon%20budgets%2025.10.2021.pdf

Climate Change Advisory Council Annual Review 2025 (Climate Change Advisory Council, November 2025). Available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/

Climate Change Advisory Council Annual Review 2025 Electricity (Climate Change Advisory Council, April 2025). Available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2025-Electricity-FINAL.pdf

Climate Change Advisory Council Annual Review 2025 Summary for All ((Climate Change Advisory Council, November 2025). Available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR-2025-SfA-final.pdf

Climate Change Advisory Council Carbon Budget Technical Report (Climate Change Advisory Council, October 2021). Available at: https://www.gov.ie/en/publication/9af1bcarbon-budgets/

Code of Practice for Wind Energy Development Ireland – Guidelines for Community Engagement 2016 (Department of Communications, Climate Action and Environment, December 2016)

Dermot McCarthy (2026) *McCarthy Report,* Independent Review on the Security of Electricity Supply. Available at: https://assets.gov.ie/static/documents/annex-5-independent-review-on-the-security-of-electricity-supply-mccarthy-report.pdf

Draft Revised Wind Energy Development Guidelines (Department of Housing, Planning and Local Government, December 2019). Available at: https://assets.gov.ie/static/documents/draft-revised-wind-energy-development-guidelines-december-2019-385c92c2-16f9-4511-80bf.pdf

Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031 (Eastern & Midland Regional Assembly, June 2019). Available at: https://www.emra.ie/rses-download/EMRA-RSES.pdf

Energy and the Green Deal (European Commission, 2022). Available at: https://commission.europa.eu/topics/energy/energy-and-green-deal_en

Energy in Ireland 2025 Report (Sustainable Energy Authority of Ireland, December 2025). Available at: https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf

Energy Roadmap 2050 (European Commission, December 2011). Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0885:FIN:EN:PDF

Energy Security in Ireland to 2030 (Department of Climate, Energy and the Environment, November 2023). Available at: https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/energy-security-in-ireland-to-2030/

Environmental Protection Agency '*Ireland is projected to exceed its National and EU climate targets*' (Environmental Protection Agency, May 2024). Available at: https://www.epa.ie/news-releases/news-releases-2024/ireland-is-projected-to-exceed-its-national-and-eu-climate-targets.php

Environmental Protection Agency, '*Press release: Ireland's power generation and industrial greenhouse gas emissions down by seven per cent in 2024'* (Environmental Protection Agency, April 2025). Available at: https://www.epa.ie/news-releases/news-releases-2025/irelands-power-generation-and-industrial-greenhouse-gas-emissions-down-by-seven-per-cent-in-2024–.php

Eurostat (2026) 'Renewable Energy Statistics'

Eurostat '*File:Renewable energy 2024 infographic.jpg*' (Eurostat, December 2025). Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Renewable_energy_2024_infographic.jpg

Eurostat '*Renewable energy statistics*' (Eurostat, December 2025). Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics

From Brown to Green Our Future is Clear (Bord na Móna, 2019). Available at: https://www.bnm.ie/bord-na-mona-reports-progress-on-brown-to-green-strategy-and-costs-of-decarbonisation-programme/

Gatis, N., Benaud, P., Anderson, K. *et al.* Peatland restoration increases water storage and attenuates downstream stormflow but does not guarantee an immediate reversal of long-term ecohydrological degradation. *Sci Rep* **13**, 15865 (2023). https://doi.org/10.1038/s41598-023-40285-4

Ireland's Climate 2024 Provisional Summary Report (MET Eireann, March 2025). Available at: https://www.met.ie/cms/assets/uploads/2025/03/Irelands-Climate-2024_Provisional-report_MetEireann.pdf

Ireland's Climate Change Assessment (Environmental Protection Agency, January 2024). Available at: https://www.epa.ie/our-services/monitoring–assessment/climate-change/irelands-climate-change-assessment-icca/

Ireland's Greenhouse Gas Emissions Projections (Environmental Protection Agency, May 2025). Available at: https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/07875-EPA-GHG-Projections-Report-FINAL.pdf

Ireland's Greenhouse Gas Emissions Projections 2025-2050 (Environmental Protection Agency, May 2026). Available at: https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/EPA-GHG-Projections-2025-2030-Web.pdf

Irelands Provisional Greenhouse Gas Emissions 1990-2025 (Environmental Protection Agency, 2026). Available at: https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/EPA-Provisional-GHG-Emissions-1990-2025-web.pdf

IWEA Best Practice Guidelines for the Irish Wind Energy Industry (Irish Wind Energy Association, March 2012). Available at: https://windenergyireland.com/images/files/9660bdfb5a4f1d276f41ae9ab54e991bb600b7.pdf

IWEA Best Practice Principles in Community Engagement & Community Commitment (Irish Wind Energy Association, March 2013). Available at: https://windenergyireland.com/images/files/9660bd0afdf6072c39.pdf

Kildare County Council (2023) Wind Energy Strategy 2023-2029. Available at: https://consult.kildarecoco.ie/en/consultation/draft-kildare-county-development-plan-2023-2029/chapter/2-wind-energy-strategy

Kildare County Council (2025) Landscape Character Assessment, Variation 4. Available at: https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/VariationNo4LandscapeCharacterAssessment/

Kildare County Council Local Authority Climate Action Plan 2024-2029 (2024). Available at: https://kildarecoco.ie/AllServices/ClimateAction/KildareCountyCouncilClimateActionPlan2024-2029/LocalAuthorityClimateActionPlan20242029.pdf

Kildare County Council, 2023. Kildare County Development Plan 2023-2029. Available at: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Kyoto Protocol to the United Nations Framework Convention on Climate Change (United Nations, 1997)

MET Eireann (2026) Annual Climate Statement for 2025. Available at: https://www.met.ie/annual-climate-statement-for-2025

National Development Plan 2021-2030 (Government of Ireland, October 2021). Available at: https://assets.gov.ie/static/documents/national-development-plan-2021-2030.pdf

National Energy Projections 2025 (Sustainable Energy Authority of Ireland, September 2025). Available at: https://www.seai.ie/sites/default/files/publications/National-Energy-Projections-Report-2025.pdf

National Energy Security Framework (Department of Climate, Energy and the Environment, April 2022). Available at: https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/national-energy-security-framework/

National Planning Framework First Revision (Government of Ireland, April 2025). Available at: https://www.npf.ie/wp-content/uploads/National-Planning-Framework-First-Revision-April-2025-1.pdf

Offaly County Council (2024) Local Authority Climate Action Plan 2024-2029. OCC, Ireland. Available at: https://www.offaly.ie/app/uploads/Offaly-CoCo-Climate-Action-Phase-Two-English-Digital-.pdf

Offaly County Development Plan 2021-2027 (Offaly County Council, September 2021). Available at: https://www.offaly.ie/stage-4-final-plan/volume-i-written-statement/

Offaly County Development Plan 2021-2027 Wind Energy Strategy (Offaly County Council, September 2021). Available at: https://www.offaly.ie/app/uploads/Combined-Copy.pdf

Paris Agreement to the United Nations Framework Convention on Climate Change (United Nations, 2015)

Planning Circular Letter PL 5/2017 - Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change and Wind Energy Development Guidelines 2006: Update on Review (Department of Housing, Planning and Local Government, August 2017). Available at: https://assets.gov.ie/static/documents/planning-circular-ltr-pl-52017-interim-guidelines-for-planning-auths-on-statutory-plan.pdf

Programme for Government 2025 Securing Ireland's Future (Department of the Taoiseach, January 2025). Available at: https://www.gov.ie/en/department-of-the-taoiseach/publications/programme-for-government-2025-securing-irelands-future/

Renou-Wilson, F., Bolger T., Bullock, C., Convery, F., Curry, J., Ward, S., Wilson, D., Müller, C. BOGLAND: Sustainable Management of Peatlands in Ireland-Final Report. EPA, Ireland. Available at: https://www.epa.ie/publications/research/reports/bogland-sustainable-management-of-peatlands-in-ireland-final-report.php

Renou-Wilson, F., Farrell, C., Bullock, C., Wilson, D., Müller, C. (2011) *Carbon Restore - The Potential of Restored Irish Peatlands for Carbon Uptake and Storage*. Climate Change Research Programme, EPA, Ireland. Available at: https://www.epa.ie/publications/research/reports/carbon-restore--the-potential-of-restored-irish-peatlands-for-carbon-uptake-and-storage.php

Renou-Wilson, F., Wilson, D., Rigney, C., Byrne, K., Farrell, C. & Müller, C. (2018). Network Monitoring Rewetted and Restored Peatlands/Organic Soils for Climate and Biodiversity Benefits (NEROS). Environmental Protection Agency. https://www.epa.ie/publications/research/biodiversity/research-236-network-monitoring-rewetted-and-restored-peatlandsorganic-soils-for-climate-and-biodiversity-benefits-neros.php

Report of the Joint Committee on Climate Action Climate Change: A Cross-Party Consensus for Action (Houses of the Oireachtas, March 2019). Available at: https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/joint_committee_on_climate_action/reports/2019/2019-03-28_report-climate-change-a-cross-party-consensus-for-action_en.pdf

REPowerEU (European Commission, May, 2022) Available at: https://commission.europa.eu/topics/energy/repowereu_en

State of the Global Climate 2024 (World Meteorological Organisation, March 2025). Available at: https://wmo.int/publication-series/state-of-global-climate/state-of-global-climate-2024

The European Green Deal (European Commission, 2019). Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

The European State of the Climate Report 2024 (World Meteorological Organization and European Union, April 2025). Available at: https://wmo.int/publication-series/european-state-of-climate-2024

The White Paper: Ireland's Transition to a Low Carbon Energy Future 2015-2030 (Department of Climate, Energy and the Environment, June 2020). Available at: https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/the-white-paper-irelands-transition-to-a-low-carbon-energy-future-2015-2030/

United Nations Framework Convention on Climate Change (United Nations, 1992)

Wilson, D., Farrell, C., Fallon, D., Moser, G., Müller, C. and Renou-Wilson, F. (2016). Multi-year greenhouse gas balances at a rewetted temperate peatland. Global Change Biology, 22(12), pp. 4080–4095. Available at: https://www.researchgate.net/publication/301563228_Multi-year_greenhouse_gas_balances_at_a_rewetted_temperate_peatland

Wilson, D., Mackin, F., Tuovinen, J-P, Moser, G., Farrell, C., & Renou-Wilson, F. (2022). Carbon and climate implications of rewetting a raised bog in Ireland. Global Change Biology, 28, 6349–6365. https://doi.org/10.1111/gcb.16359

Wind Energy Development Guidelines (Department of Environment, Heritage and Local Government, 2006). Available at: https://assets.gov.ie/static/documents/wind-energy-development-guidelines-2006.pdf

World Meteorological Organisation (2026) State of the Global Climate 2025. Available at: https://wmo.int/publication-series/state-of-global-climate/state-of-global-climate-2025

World Meteorological Organisation and European Union (2026) The European State of the Climate Report 2025. Available at: https://wmo.int/resources/publication-series/state-of-climate-europe/european-state-of-climate-2025

3. Site Selection & Reasonable Alternatives

Bord na Móna (2011). Strategic Framework for the Future Use of Peatlands.

Department of Environment, Climate and Communications (2025). Climate Action Plan 2025

Department of Housing, Planning and Local Government (2013) Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review. DHPLG, Dublin.

Department of Housing, Planning and Local Government (December 2019) Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach. DHPLG, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines 2006.

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

European Union (2011). Directive 2011/92/EU. European Parliament and European Council.

European Union (2014). Directive 2014/52/EU. European Parliament and European Council.

European Union (2017) Guidance on the Preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

Government of Ireland (2018). Project Ireland 2040: National Planning Framework Available at: https://www.npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf

Government of Ireland, April (2025). National Planning Framework First Revision Available at: https://www.npf.ie/wp-content/uploads/National-Planning-Framework-First-Revision-April-2025-1.pdf

Irish Statute Book (2000). Planning and Development Acts 2000 to 2019. Stationery Office, Dublin.

Irish Wind Energy Association (2012). Best Practice Guidelines for the Irish Wind Energy Industry.

Kildare County Council, 2023. Kildare County Development Plan 2023-2029. Available at: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Offaly County Council, 2021. Offaly County Development Plan 2021-2027. Available at: https://www.offaly.ie/c/county-development-plan/

Sustainable Energy Authority of Ireland (2013). Methodology for Local Authority Renewable Energy Strategies.

Sustainable Energy Authority of Ireland Solar Energy FAQ Publication https://www.seai.ie/publications/FAQs_on_Solar_PV.pdf

4. Description of the Proposed Project

Agriculture and Food Development Authority (2014). Forestry Act 2014.

Coillte (2013): Forest Operations & Water Protection Guidelines.

Construction Industry Research and Information Association (CIRIA) (2006). Guidance on 'Control of Water Pollution from Linear Construction Projects' (CIRIA Report No. C648, 2006).

Construction Industry Research and Information Association (CIRIA) (2006): Control of Water Pollution from Construction Sites - Guidance for Consultants and Contractors. CIRIA C532. London.

Construction Industry Research and Information Association (CIRIA, No. C648, 2006) Control of Water Pollution from Linear Construction Projects

Department of Agriculture, Fisheries and Food (2011). Forest Service Policy on the Granting of Felling Licences for Wind Farm Development.

Department of the Environment, Climate and Communications (2025) Climate Action Plan 2025

Department of the Environment, Heritage and Local Government (2006) Wind Energy Development

Department of the Environment, Heritage and Local Government (2019) Draft Wind Energy Development Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.

Environmental Protection Agency (2021) Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects https://www.epa.ie/publications/circular-economy/resources/CDWasteGuidelines.pdf

Environmental Protection Agency (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports https://www.epa.ie/publications/monitoring–assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Environmental Protection Agency Ireland (1999) Wastewaster Treatment Manuals - Treatment Systems for Small Communities, Business, Leisure Centres and Hotels. EPA, Wexford.

Environmental Protection Agency Ireland (2009) Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses. EPA, Wexford.

Forest Service (2000): Forestry and Water Quality Guidelines. Forest Service, DAF, Johnstown Castle Estate, Co. Wexford.

Forestry Commission (2011): Forests and Water UK Forestry Standard Guidelines, Fifth Edition. Publ. Forestry Commission, Edinburgh

Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.

Inland Fisheries Ireland (2016): Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Watercourses.

Institute of Geologists Ireland (2007) Guide for Drilling Wells for Private Water Supplies. IGI, Dublin.

Irish Statute Book (1996) Waste Management Act 1996 (S.I. No. 10 of 1996).

Irish Statute Book (2000). Planning and Development Acts 2000 to 2019. Stationery Office, Dublin.

Irish Statute Book (2007) Waste Management (Collection Permit) Regulations, 2007 as amended (S.I. No. 820 of 2007).

Irish Statute Book (2017) Forestry Regulations 2017 (S.I. No. 191 of 2017).

Kildare County Development Plan 2023-2029
https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/

McAulay, I., TJP Envision Limited, Department of Trade and Industry, New and Renewable Energy Programme (1999) The Influence of Colour on the Aesthetics of Wind Turbine Generators (ETSU, London).

Offaly County Development Plan 2021-2027 https://www.offaly.ie/stage-4-final-plan/

Office of Public Works. Construction, Replacement or Alteration of Bridges and Culverts - A Guide to Applying for Consent under Section 50 of the Arterial Drainage Act, 1945. Available at:
https://www.gov.ie/en/publication/957aa7-consent-requirements-constructionalteration-of-watercourse-infrastru/

Safety and Health Commission for the Mining and Other Extractive Industries (2002) Doc. No 1396/2/01 EN Guidance on the Safe Use of Explosives in Quarries
https://www.hsa.ie/eng/Publications_and_Forms/Publications/Mines_and_Quarries/Guidance%20on%20the%20Safe%20Use%20of%20Explosives%20in%20Quarries.pdf

Scottish Natural Heritage (2010) Good Practice During Wind Farm Construction.

Scottish Natural Heritage (2013) Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms Commissioned Report No. 591/ SNH, Stirling.

Scottish Natural Heritage, 2019 Good Practice During Wind Farm Construction.

Siltbuster. Concrete Washer. Available at https://www.siltbuster.co.uk/sb_prod/siltbuster-roadside-concrete-washout-rcw/

UK Guidance Note 2018 GPP5 – Works or Maintenance in or Near Watercourses

UK Guidance Note 2020 GPP1 - General Guide to Prevention of Pollution (UK Guidance Note).

UNFCCC (2015) COP21 https://unfccc.int/process-and-meetings/the-paris-agreement#:~:text=The%20Paris%20Agreement%20is%20a,force%20on%204%20November%202016.

UNFCCC (2023) COP28 https://unfccc.int/cop28

UNFCCC (2024) COP29 https://unfccc.int/cop29

Wind Energy Ireland. Wind Stats. Available at https://www.windenergyireland.com/about-wind/the-basics/facts-stats

5. Population and Human Health

'Do concerns about wind farms blow over with time? Residents' by University College Cork researchers le Maitre et al. (2024). Available at: https://www.sciencedirect.com/science/article/pii/S1364032123006962?via%3Dihub

American Wind Energy Association and Canadian Wind Energy Association, 2009. Wind Turbine Sound and Health Effects – An Expert Panel Review. Available at: https://www.novoco.com/public-media/documents/awea_soundwhitepaper_121109_0.pdf

Australian Government National Health and Medical Research Council (NHMRC) Wind Turbines & Health, 2010. A Rapid Review of the Evidence. Australia. Available at: https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/how-we-source-energy/coopers-gap-wind-farm/20100701-agl-nhmrc-wind-turbines-and-health.pdf?srsltid=AfmBOorScu2PXJ9Ur11S-poE1bPdCKb3QsjDXKY6FQdS9qEHe3nJbGK1

Australian Government National Health and Medical Research Council, 2014. Wind Turbines and Health, A Critical Review of the Scientific Literature. Journal of Occupational and Environmental Medicine, 56(11): e108-30.

BiGGAR Economics, 2021. Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms. Available at https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf

Brunner, E.J., Hoen, B., Rand, J., Schwegman, D., 2023. Commercial wind turbines and residential home values: new evidence from the universe of land-based wind projects in the United States. Energy Policy, 185, 113837.

Central Statistics Office (CSO). Census Data. Available at: https://www.cso.ie/en/census/

Chapman, S., Crichton, F., 2020. Wind turbine syndrome; A communicated disease. Sydney University Press.

Climate and Health Alliance, 2012. Position Statement on Health and Wind Turbines Available at: https://www.agl.com.au/content/dam/digital/agl/documents/about-agl/how-we-source-energy/coopers-gap-wind-farm/caha-position-statement-health-wind-turbines.pdf?srsltid=AfmBOordoV3YNsLhog4rlqxpd3PXiW7BAcAuGwPV1R6-UBnwgY8SQSLR

CSO, 2020. Census of Agriculture. Available at: https://www.cso.ie/en/releasesandpublications/ep/p-coa/censusofagriculture2020-preliminaryresults/kf/

Deloitte, Irish Wind Energy Association 2009 Jobs and Investment in Irish Wind Energy Powering Ireland's Economy. Available at: https://windenergyireland.com/images/files/9660bd5e72bcac538f47d1b02cc6658c97d41f.pdf

Department of Energy and Climate Change, 2010. Update of UK Shadow Flicker Evidence Base. Available at: https://assets.publishing.service.gov.uk/media/5a79770bed915d0422068aa3/1416-update-uk-shadow-flicker-evidence-base.pdf

Department of Housing, Planning and Local Government, 2018 Guidelines for Planning Authorities and An Bord Pleanála. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/guidelines-for-planning-authorities-and-an-bord-plean%C3%A1la-on-carrying-out-environmental-impact-assessment-august-2018/

Department of Housing, Planning and Local Government, 2019. Draft Revised Wind Energy Development Guidelines. Available at: https://assets.gov.ie/46097/6e68ea81b8084ac5b7f9343d04f0b0ef.pdf

Department of Housing, Planning, Community and Local Government. Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licensing Systems. Key Issues Consultation Paper. Available at: https://www.publichealth.ie/sites/default/files/resources/IPH%20response%20to%20the%20key%20issues%20consultation%20paper%20on%20Transposition%20of%20EIA%20Directive%20201452EU.pdf

Department of the Environment, Climate and Communications, 2025. Climate Action Plan 2025. Available at: https://assets.gov.ie/static/documents/Climate_Action_Plan_2025_updated_cover.pdf

Department of the Environment, Heritage and Local Government, 2006. Wind Energy Development Guidelines. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/wind-energy-development-guidelines-2006/

EirGrid, 2016. EirGrid Evidence Based Environmental Studies Study 9: Settlement and land use Available at: https://cms.eirgrid.ie/sites/default/files/publications/EirGrid-Evidence-Based-Environmental-Study-9-Settlement-and-Landuse.pdf

Eirgrid, 2025. Systems and Renewable Data Reports. Available at: https://www.eirgrid.ie/grid/system-and-renewable-data-reports

Environmental Noise Guidelines for the European Region (The World Health Organisation (WHO), 2022 Update: https://iris.who.int/server/api/core/bitstreams/f53c45ba-11d3-4502-a424-c1cf49f5a053/content

EPA, 2022. Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Available at: https://www.epa.ie/publications/monitoring–assessment/assessment/EIAR_Guidelines_2022_Web.pdf

EPA, 2025. Ireland's Provisional Greenhouse Gas Emissions 2024-2055 Available at: https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/EPA-Provisional-1990-2024-GHG-Report-1716.pdf

ESB, 2017. EMF & You: Information about Electric & Magnetic Fields and the electricity transmission system in Ireland. Available at: https://www.esbnetworks.ie/docs/default-source/publications/esb-networks-electrical-and-magnetic-fields-.pdf?sfvrsn=43304888_13

European Commission, 2017. Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report. Available at: https://op.europa.eu/en/publication-detail/-/publication/2b399830-cb4b-11e7-a5d5-01aa75ed71a1

European Union Reference Centre for Animal Welfare for Ruminants and Equines, 2024. Q2E-Ruminants-Equines-2024-005. Available at: https://www.eurcaw-ruminants-equines.eu/wp-content/uploads/2024/10/Q2E-Ruminants-Equines-2024-005.pdf

Fáilte Ireland, (2025). Key Tourism Facts 2024 National Summary. Available at:

Fáilte Ireland, 2008. Visitor Attitudes on the Environment – Wind Farms. Available at: https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/Visitor-Attitudes-on-the-Environment.pdf?ext=.pdf

Fáilte Ireland, 2012. Visitor Attitudes on the Environment – Wind Farms. Available at: https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/WindFarm-VAS-(FINAL)-(2).pdf?ext=.pdf

Fáilte Ireland, 2018. 2017 Topline Tourism Performance by Region. Available at: https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-tourism-performance.pdf?ext=.pdf

Fáilte Ireland, 2023. EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects. Supplied by Fáilte Ireland through scoping.

Heblich, S., Olner, D., Pryce, G., Timmins, C., 2016. Impact of wind Turbines on House Prices in Scotland. Available at: https://www.climatexchange.org.uk/wp-content/uploads/2023/09/cxc_wind_farms_impact_on_house_prices_final_17_oct_2016.pdf

Hoen, B., Brown, J.P., Jackson, T., Wiser, R. H., Thayer, M. A., Cappers, P., 2013. A Spatial Hedonic Analysis of the Effects of Wind Energy Facilities on Surrounding Property Values in the United States. Available at: https://emp.lbl.gov/publications/spatial-hedonic-analysis-effects-wind

Hoen, B., Wiser, R. H., Cappers, P., Thayer, M. A., Sethi, G., 2009. The Impact of Wind Power Projects on Residential Property Values in the United States: A multi-Site Hedonic Analysis. Available at: https://emp.lbl.gov/publications/impact-wind-power-projects

HSA, 2017. Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations 2006. Available at: https://www.hsa.ie/eng/publications_and_forms/publications/construction/guidelines_on_the_procurement_design_and_management_requirements_of_the_safety_health_and_welfare_at_work_construction_regulations_2013_updated_.html

Impact of Wind turbines on Human Health and Safety: Proceedings of Socratic Lectures, University of Ljubljana, 2025. Available at: https://www.researchgate.net/publication/390586600_Impact_of_Wind_Turbines_on_Human_Health_and_Safety

Institute of Public Health, 2021. Health Impact Assessment Guidance: A Manual. Standalone Health Impact Assessment and health in environmental assessment. Dublin and Belfast. Available at: https://www.publichealth.ie/sites/default/files/resources/guidance_2.pdf

Interactions Research, 2017. Segmentation of the Energy Consumer Market in Ireland. Available at: https://interactions.ie/wp-content/uploads/2020/06/20190212-Full-Report.pdf

International Electrotechnical Commission. IEC 61400-1: Wind turbines – Part 1: Design requirements. Geneva.

Irish Wind Energy Association, 2012. Best Practice Guidelines for the Irish Wind Energy Industry. Available at: https://windenergyireland.com/images/files/9660bdfb5a4f1d276f41ae9ab54e991bb600b7.pdf

ISEP, 2017. Health in Environmental Impact Assessment: A Primer for a Proportionate Approach. Available at: https://www.nzaia.org.nz/uploads/1/2/3/3/12339018/iema_primer_on_health_in_uk_eia_doc_v11.pdf

ISEP, 2022. Determining Significance for Human Health in Environmental Impact Assessment. Available at: https://www.iema.net/media/yljb2nbs/iema-eia-guide-to-determining-significance-for-human-health-nov-2022.pdf

IWEA, 2020. 70by30 Implementation Plan. Available at: https://windenergyireland.com/images/files/70by30-implementation-plan-reports.pdf

Kildare County Council, 2022. Major Emergency Plan. Available at: file:///H:/2025/07%20July/250708%20BnM%20Ballydermot%20WF%20EIAR%20and%20PA/EIA%20Report/17.%20Major%20Accidents%20and%20Natural%20Disasters/KCC%20Major%20Emergency%20Plan.pdf

Kildare County Development Plan 2023- 2029: https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/

KPMG on behalf of Wind Energy Ireland, 2021. Economic Impact of Onshore Wind in Ireland. Available at: https://windenergyireland.com/images/files/economic-impact-of-onshore-wind-in-ireland.pdf?

MaREI, 2021. Our Climate Neutral Future: Zero by 50. Available at: https://www.marei.ie/wp-content/uploads/2021/03/Our-Climate-Neutral-Future-Zero-by-50-Skillnet-Report-March-2021-Final-2.pdf

Marshall Day Acoustics, 2014. Summary of Research of Noise Effects on Animals Available at: https://www.epa.govt.nz/assets/FileAPI/proposal/NSP000033/Hearings/3a009a795c/BoD-Volume-4-31-Siiri-Wilkening-10-March-2014-Summary-of-research-of-noise-effects-on-animals.pdf

Marshall N.S., Cho G., Toelle B.G., Tonin R., Bartlett D.J., D'Rozario A.L., Evans C.A., Cowie C.T., Janev O., Whitfeld C.R., Glozier N., Walker B.E., Killick R., Welgampola M.S., Phillips C.L., Marks G.B., Grunstein R.R., 2023. The Health Effects of 72 Hours of Simulated Wind Turbine Infrasound: A Double-Blind Randomized Crossover Study in Noise-Sensitive Health Adults. Environmental Health Perspectives, 131(3):37012.

Massachusetts Departments of Environmental Protection and Public Health, 2012. Wind Turbine Health Impact Study -Report of Independent Expert Panel. USA. Available at: https://www.mass.gov/doc/wind-turbine-health-impact-study-report-of-independent-expert-panel/download

Met Éireann, 2024. Birr 1978-2008 averages. Available at: https://www.met.ie/cms/assets/uploads/2024/07/Birr-1979%E2%80%932008-

Met Éireann, no date. Sunshine. Available at: https://www.met.ie/climate/what-we-measure/sunshine

Offaly County development Plan 2021- 2027: https://www.offaly.ie/c/county-development-plan/

Offaly County Council, 2019. Major Emergency Plan. Available at: https://www.offaly.ie/app/uploads/Council/Council_Services_A-Z/Emergency_Services/Offaly-County-Major-Emergency-Plan-2019-1.pdf

Population and Labour Force Projections 2023-2057, CSO: Population Projections Results Population and Labour Force Projections 2023-2057 - Central Statistics Office

Poyry, 2014. The Value of Wind Energy to Ireland. Available at: https://windenergyireland.com/images/files/9660bd6b05ed16be59431aa0625855d5f7dca1.pdf

Publications of the Government's analysis, assessment and research activities, 2020. Infrasound Does Not Explain Symptoms Related to Wind Turbines. Available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162329/VNTEAS_2020_34.pdf

Renewable UK, 2010. Wind Turbine Syndrome - An independent review of the state of knowledge about the alleged health condition. London, UK.

RenewableUK, 2014. The effect of wind farms of house prices. Available at: https://tethys.pnnl.gov/sites/default/files/publications/RenewableUK_2014.pdf.

SEAI, 2003. Attitudes Towards the Development of Wind Farms in Ireland. Ireland.

SEAI, 2023. Irish national survey of households near new commercial wind and solar farms. Available at: https://www.seai.ie/sites/default/files/publications/SEAI-RESS-National-Survey.pdf

Siemens and IWEA, 2014. An Enterprising Wind - An economic analysis of the job creation potential of the wind sector in Ireland. Available at: https://www.esri.ie/system/files/publications/BKMNEXT250%20%281%29.pdf

The Sustainable Energy Authority of Ireland (SEAI), 2021. Wind Energy Roadmap 2011-2050. Available at: https://www.seai.ie/sites/default/files/publications/Wind_Energy_Roadmap_2011-2050.pdf

The World Health Organisation (WHO), 2018. Environmental Noise Guidelines for the European Region. Available at: https://www.who.int/europe/publications/i/item/9789289053563

Tourism Ireland, 2023. Island of Ireland – Overseas Tourism Performance Facts & Figures 2023. Available at: https://assets.tourismireland.com/data/docs/default-source/visitor-facts-and-figures/visitor-facts-and-figures-20234b30dfab-2651-4dcc-b325-2f2dcb31ebc3.pdf?sfvrsn=32429854_1

Transport Infrastructure Ireland/formerly National Roads Authority, 2008. Environmental Impact Assessment of National Road Schemes- A Practical Guide. Revision 1. Available at: https://www.tii.ie/media/joodyduf/environmental-impact-assessment-of-national-road-schemes-practical-guide.pdf

United States Environmental Protection Agency, 2016. Health Impact Assessment Resource and Tool Compilation. Available at: https://www.epa.gov/sites/default/files/2017-07/documents/hia_resource_and_tool_compilation.pdf

US EPA, 2014. Framework for Human Health Risk Assessment to Inform Decision Making. United States Environmental Protection Agency. Available at: https://www.epa.gov/sites/default/files/2014-12/documents/hhra-framework-final-2014.pdf

Warren, C.R, Lumsden, C., O'Dowd, S., Birnie, R. V., 2004. Green on Green: Public Perceptions of Wind Power in Scotland and Ireland. Journal of Environmental Planning and Management 48(6): 853-875.

Wind Energy Attitudes Monitor, 2024. Wind Energy Attitudes Monitor. Available at: https://windenergyireland.com/images/files/wind-energy-ireland-2024-report-key-slides-website.pdf

Wind Energy Guidelines (2025). Dáil Éireann Debate. Thursday 15th May 2025. Available at: https://www.oireachtas.ie/en/debates/question/2025-05-15/51/

Wind Energy Guidelines (2025). Dáil Éireann Debate. Wednesday 15th October 2025. Available at: https://www.oireachtas.ie/en/debates/question/2025-10-15/192/

Wind Energy Ireland, 2025. Irish Wind Farms Provide a Third of Our Power in 2024 and Set New Energy Milestone. Available at: https://windenergyireland.com/latest-news/7827-irish-wind-farms-provide-a-third-of-our-power-in-2024-and-set-new-energy-milestone

WindEurope, 2017. Wind energy in Europe: Scenarios for 2030. Available at: https://windeurope.org/wp-content/uploads/files/about-wind/reports/Wind-energy-in-Europe-Scenarios-for-2030.pdf

WindEurope, 2022. Wind Energy in Europe: 2021 Statistics and the Outlook for 2022-2026. Available at: https://windeurope.org/intelligence-platform/product/wind-energy-in-europe-2021-statistics-and-the-outlook-for-2022-2026/

6. Biodiversity

All-Ireland Pollinator Plan (2022). Pollinator-friendly management of wind farms. National Biodiversity Data Centre. Available at: https://pollinators.ie/wp-content/uploads/2022/12/Wind-Farm-Pollinator-Guidelines-2022-WEB.pdf

Bat Conservation Ireland (2026) Bat Survey, Assessment and Mitigation Guidelines for Onshore Wind Farms in Ireland. Bat Conservation Ireland, Ireland.

British Bryological Society. Atherton, I., Bosanquet, S. and Lawley, M. eds. (2010). Mosses and liverworts of Britain and Ireland: a field guide. Plymouth.

Buckley, D.J. (2012) National Newt Survey - Final Report 2012. Irish Wildlife Trust, Dublin

Butterfly Conservation (no date) Recording and monitoring butterflies and day-flying moths [guidance]. Butterfly Conservation. Available at: https://butterfly-conservation.org/butterflies/recording-and-monitoring

Byrne, A., Moorkens, E.A., Anderson, R., Killeen, I.J. & Regan, E.C. (2009) Ireland Red List No. 2 – Non-Marine Molluscs. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

CEN (2003). Water Quality - Sampling of Fish with Electricity. Document CEN EN 14011:2000.

CFB (2008). Methods for the Water Framework Directive. Electric Fishing in Wadeable Reaches. Central Fisheries Board. Unpublished report.

CIEEM (2013) Technical Guidance Series – Competencies for Species Survey: Badger [online] Available at: https://cieem.net/wp-content/uploads/2019/02/CSS-BADGER-April-2013.pdf [Accessed 21/02/2025]

CIEEM (2013) Technical Guidance Series – Competencies for Species Survey: Otter [online] Available at: https://cieem.net/wp-content/uploads/2019/02/CSS-EURASIAN-OTTER-April-2013.pdf [Accessed 21/02/2025]

CIEEM (2013). Competencies for Species Survey: Badger. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

Devaney, F. M., Martin, J. R., O'Neill, F. H., & Delaney, A. (2013). Irish semi-natural grasslands survey (No. 4). Annual Report.

EA (2003). River Habitat Survey in Britain and Ireland Field Survey Guidance Manual 2003. Environment Agency, UK.

EC (2013). Interpretation Manual of European Union Habitats. Version EUR 28. European Commission, DG Environment.

Environmental Protection Agency [online]. Available at: http://www.epa.ie. [Accessed 24/03/2026].

EPA (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency, Ireland.

European Communities (Environmental Impact Assessment) Regulations, 1989 to 2006.

European Communities (Natural Habitats) Regulations, SI 477/2011, SI 94/1997, SI 233/1998 and SI 378/2005 – http://www.irishstatutebook.ie.

Fernandez Valverde, F., Crowley, W. and Wilson, S. (2012) Raised Bog Monitoring Project 2011 - Volume 1: Main Report. Irish Wildlife Manuals No. 62. NPWS, Dublin.

Fernandez Valverde, F., Fanning, M., McCorry, M. and Crowley, W. (2005). Raised Bog Monitoring Project 2004-2005. Report to the National Parks and Wildlife Service, Dublin.

Fernandez, F., Connolly K., Crowley W., Denyer J., Duff K. & Smith G. (2014) Raised Bog Monitoring and Assessment Survey 2013. Irish Wildlife Manuals, No. 81. National Parks and Wildlife Service, Department of Arts, Heritage and Gaeltacht, Dublin, Ireland.

First Schedule of the European Union (Invasive Alien Species) Regulations 2024 (S.I. 374 of 2024).

Fitzpatrick, Ú., Murray, T.E., Byrne, A., Paxton, R.J. and Brown, M.J.F. (2006). Regional Red List of Irish Bees.

Flora (Protection) Order 2022

Fossitt, J.A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council.

Fry, R. and Waring, P. (2020) A Guide to Moth Traps and Their Use, 3rd ed. Amateur Entomologists' Society. ISBN 9781838024611.

Gammell, M., McFarlane, A., Brady, D., O'Brien, J., Mirimin, L., Graham, C., Lally, H., Minto, C. & O'Connor, I. (2021). White-clawed Crayfish Austropotamobius pallipes survey in designated SACs in 2017. Irish Wildlife Manuals, No. 131. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

Harding, J. (2021). The Irish Butterfly Book.

Heritage Council (2012) Kildare Wetland Survey 2012 [online] Available at: https://www.heritagemaps.ie/datasets/heritagecouncil::kildare-wetland-survey-2012-polygon

Hodgetts, N.G. & Lockhart, N. (2025) Bryophytes (Mosses, Liverworts & Hornworts). Ireland Red List No. 14. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Dublin, Ireland.

IFI (2010) IFI Biosecurity Protocol for Field Survey Work. Inland Fisheries Ireland. December 2010.

IFI (2016) Guidelines on the Protection of Fisheries During Construction Works and Adjacent to Waters. Inland Fisheries Ireland.

Inland Fisheries Ireland [online]. Available at: http://www.fisheriesireland.ie/ [Accessed 24/03/2026].

Inns, H. (2011) Britain's Reptiles and Amphibians, Hampshire:

Johnson, W. P., Schmidt, P. M. and Taylor, D. P. (2014). Foraging flight distances of wintering ducks and geese: a review. Avian Conservation and Ecology, 9(2): 2. http://dx.doi.org/10.5751/ACE-00683-090202

Jonason, D., Franzén, M. and Ranius, T. (2014) 'Surveying moths using light traps: effects of weather and time of year', PLoS ONE, 9(3), e92453. Available at: https://doi.org/10.1371/journal.pone.0092453

King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., FitzPatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. and Cassidy, D. (2011) Ireland Red List No. 5: Amphibians, Reptiles and Freshwater Fish. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Map of Irish Wetlands [online]. Available at: https://wetland.maps.arcgis.com/apps/instant/sidebar/index.html?appid=0b602456f4e54b2b808b9cf8d6472cad

Marnell, F., Kelleher, C. & Mullen, E. (2022) Bat mitigation guidelines for Ireland v2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland

Marnell, F., Looney, D. and Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Martin, J.R., O'Neill, F.H. & Daly, O.H. (2018) The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Musseau, R.; Bastianelli, M.; Bely, C.; Rouselle, C.; Dehorter, O. (2021) Using miniaturized GPS archival tags to assess home range features of a small plunge-diving bird: the European Kingfisher (*Alcedo atthis*). Avian Research, 12(1), 30

National Biodiversity Data Centre (2022) Farmer Moth Monitoring EIP Project Report. Waterford: National Biodiversity Data Centre.

National Biodiversity Data Centre [online] Irish Butterfly Monitoring Scheme [methodology]. Waterford: National Biodiversity Data Centre. Available at: https://biodiversityireland.ie/surveys/butterfly-monitoring-scheme/ [Accessed 30/07/2026]

National Biodiversity Data Centre [online]. Available at: http://www.biodiversityireland.ie/ [Accessed 24/03/2026].

National Biodiversity Data Centre online] Bumblebee Monitoring Scheme [methodology]. Waterford: National Biodiversity Data Centre. Available at: https://biodiversityireland.ie/surveys/bumblebee-monitoring-scheme/ [Accessed 30/07/2026]

NatureScot (2021). Bats and onshore wind turbines: survey, assessment and mitigation. Version: August 2021 (updated with minor revisions).

NatureScot [online] Protected Species Advice for Developers – Red Squirrel. Available at: https://www.nature.scot/sites/default/files/2018-09/Species%20Planning%20Advice%20-%20red%20squirrel.pdf [Accessed 06/08/2026]

NBDC Biodiversity Maps [online] Available at: https://maps.biodiversityireland.ie/Map

NIEA, Natural Environment Division (2021). Guidance on Bat Surveys, Assessment & Mitigation for Onshore Wind Turbine Developments.

NPWS (2018) Conservation objectives supporting document – lesser horseshoe bat (Rhinolophus hipposideros) Version 1. Conservation Objectives Supporting Document Series. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Dublin, Ireland.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitats Assessments. Unpublished NPWS report.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report.

NPWS (2021) - Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland. National Parks and Wildlife Service Guidance Series, Department of Housing, Local Government and Heritage, Dublin, Ireland.

NPWS (2024) Conservation Objectives: River Boyne and River Blackwater SPA 004232. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

NPWS (2024). Irelands 4th National Biodiversity Action Plan 2023-2030. Department of Housing, Local Government and Heritage, Dublin, Ireland.

NPWS (2025). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.

NPWS (2025). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitats Assessments. Unpublished NPWS report.

NPWS (2025). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report.

NPWS Flora (Protection) Order 2022 map viewer [online]. Available at: https://heritagedata.maps.arcgis.com/apps/webappviewer/index.html?id=a41ef4e10227499d8de17a8abe42bd1e [Accessed 24/03/2026].

NPWS Flora (Protection) Order Bryophytes map viewer [online]. Available at: https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=71f8df33693f48edbb70369d7fb26b7e [Accessed 24/03/2026].

NPWS Protected Site Synopses and maps [online]. Available at: http://www.npws.ie/protected-sites/ [Accessed 24/03/2026].

Perrin, 2025, ERICA – Engine for Relevés to Irish Communities Assignment V6.4 User's Manual [online]. Available at: https://biodiversityireland.shinyapps.io/vegetation-classification/_w_9cd4889a/manual.pdf [Accessed 03/06/2026]

Perrin, P. M. (2024) Handbook for the Irish Vegetation Classification. Developed by BEC Consultants and funded by the National Parks and Wildlife Service. Published by the National Biodiversity Data Centre, Series No. 38. December 2024.

Perrin, P.M., Barron, S.J., Roche, J.R. & O'Hanrahan, B. (2014). Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 2.0. Irish Wildlife Manuals, No. 79. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Perrin, P.M., FitzPatrick, Ú. and Lynn, D. (2018). The Irish Vegetation Classification – An Overview of Concepts, Structures and Tools.

Preston C.D., Pearman, D.A. and Dines, T.D. (2002). New Atlas of the British and Irish Flora. Oxford University Press.

Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., & Wilson, C.J. (2010) Ireland Red List No. 4 – Butterflies. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Ireland.

Reynolds, J.D., O'Connor, W., O'Keeffe, C. & Lynn, D. (2010) A technical manual for monitoring white-clawed crayfish Austropotamobius pallipes in Irish lakes. Irish Wildlife Manuals, No 45, National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

Rodrigues, L., L. Bach, M. J. Dubourg-Savage, B. Karapandža, D. Kovač, T. Kervyn, J. Dekker, A. Kepel, P. Bach, J. Collins, C. Harbusch, K. Park, B. Micevski, and J. Minderman (2015). Guidelines for consideration of bats in wind farm projects - Revision 2014. UNEP/EUROBATS Secretariat Bonn, Germany.

Smith, G.F. & Crowley, W. (2020) The habitats of cutover raised bog. Irish Wildlife Manuals, No. 128. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

Smith, G.F., O'Donoghue, P., O'Hora, K. and Delaney, E. (2011). Best practice guidance for habitat survey and mapping. Heritage Council, Kilkenny.

SNH (2016). Assessing connectivity with Special Protection Areas (SPAs). Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2022-12/Assessing%20connectivity%20with%20special%20protection%20areas.pdf

Stace, C. (2019). New Flora of the British Isles, 4th Edition. C&M Floristics

Sterling, P. and Parsons, M., illustrated by Lewington, R. (2023) Field Guide to the Micro Moths of Great Britain and Ireland. London: Bloomsbury Wildlife. ISBN 9781472964526.

Sutherland, E. (no date) Recording Moths in Wicklow Mountains National Park. Wicklow Mountains National Park Education Centre.

TII (2006). Guidelines for the Treatment of Badger Prior to the Construction of National Roads Schemes. Dublin: National Roads Authority.

TII (2008a). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. Dublin: National Roads Authority.

TII (2008b). Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes. Dublin: National Roads Authority.

TII (2008c) Environmental Impact Assessment of National Road Schemes – A Practical Guide, National Roads Authority, Dublin.

TII (2009). Guidelines for Assessment of Ecological Impacts of National Roads Schemes. Dublin: National Roads Authority.

TII (2020) - The Management of Invasive Alien Plant Species on National Roads – Technical Guidance GEENV-01105

Toner, P., Bowman, J., Clabby, K., Lucey, J., McGarrigle, M., Concannon, C., ... & MacGarthaigh, M. (2005). Water quality in Ireland. Environmental Protection Agency, Co. Wexford, Ireland.

Waring, P. and Townsend, M. (2017). Field Guide to the Moths of Great Britain and Ireland: Third Edition. Bloomsbury Publishing

Wildlife Act 1976 and Wildlife (Amendment) Acts.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. and Wright, M. (2016). Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland

7. Ornithology

Alerstam, T., Rosén, M., Bäckman, J., Ericson, P. G. P., and Hellgren, O. (2007). Flight speeds among bird species: allometric and phylogenetic effects. PLoS biology, 5(8), e197. https://doi.org/10.1371/journal.pbio.0050197

Balmer, D. E., Gillings, S., Caffrey, B. J., Swann, R. L., Downie, I. S., & Fuller, R. J. (2013). Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland. Thetford: BTO. http://www.seabirdgroup.org.uk/journals/seabird-27/seabird-27-112.pdf

Band, W (2024) Using a collision risk model to assess bird collision risks for onshore wind farms. NatureScot Commissioned Report No. 909. https://www.nature.scot/doc/naturescot-research-report-909-using-collision-risk-model-assess-bird-collision-risks-onshore-wind

Barn Owl Trust (2026) Wind turbines and barn owls. Available at: https://www.barnowltrust.org.uk/hazards-solutions/barn-owls-wind-turbines/

Barrientos, R., Alonso, J.C., Ponce, C, and Palacín, C. (2011) Meta-analysis of the effectiveness of marked wire in reducing avian collisions with power lines. Conserv. Biol., 25(5), 893-903. https://doi.org/10.1111/j.1523-1739.2011.01699.x

Bibby, C.J., Burgess, N.D., Hillis, D.M., Hill, D.A. and Mustoe S. (2000). Bird Survey Techniques. Massachusetts, United States: Academic Press.

BirdWatch Ireland (2021) I-WEBS Counter Manual. BirdWatch Ireland, Kilcoole, Ireland. Available at: https://birdwatchireland.ie/publications/i-webs-counter-manual/

Brazil, M. (2003). *The Whooper Swan*. London: T&AD Poyser.

British Trust for Ornithology (2021) BirdFacts. Available at https://www.bto.org/about-birds/birdfacts

British Trust for Ornithology (2021). Breeding Bird Survey. British Trust for Ornithology, Thetford, UK. Available at: https://www.bto.org/our-science/projects/bbs

Brown, A. F., & Shepherd, K. B. (1993). A method for censusing upland breeding waders. Bird study, 40(3), 189-195. https://doi.org/10.1080/00063659309477182

Burke, B., Kennedy, J., Gadd, R., Fitzgerald, N., Lynch, A., Caffrey, B., Walsh, A., Murray, T. & Kelly, S.B.A. (2025). The status and distribution of wintering waterbirds in Ireland in 2023: results from the Irish Wetland Bird Survey (I-WeBS).

Irish Wildlife Manuals, No. 162. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

Burke, B., Lewis, L. J., Fitzgerald, N., Frost, T., Austin, G., & Tierney, T. D. (2018). Estimates of waterbird numbers wintering in Ireland, 2011/12–2015/16. Irish Birds, 11, 1-12. https://www.researchgate.net/profile/Brian-Burke-5/publication/337089291_Estimates_of_waterbird_numbers_wintering_in_Ireland_201112-201516/links/5dc46981299bf1a47b1f7bcb/Estimates-of-waterbird-numbers-wintering-in-Ireland-2011-12-2015-16.pdf

Burke, B., McElwaine, J. G., Fitzgerald, N., Kelly, S. B. A., McCulloch, N., Walsh, A. J., & Lewis, L. J. (2021). Population size, breeding success and habitat use of Whooper Swan Cygnus cygnus and Bewick's Swan Cygnus columbianus bewickii in Ireland: results of the 2020 International Swan Census. Irish Birds, 43, 57-70. https://www.researchgate.net/profile/Brian-Burke-5/publication/350856681_Population_size_breeding_success_and_habitat_use_of_Whooper_Swan_Cygnus_cygnus_and_Bewick's_Swan_Cygnus_columbianus_bewickii_in_Ireland_results_of_the_2020_International_Swan_Census/links/616fce7cc891c4663aaace06/Population-size-breeding-success-and-habitat-use-of-Whooper-Swan-Cygnus-cygnus-and-Bewicks-Swan-Cygnus-columbianus-bewickii-in-Ireland-results-of-the-2020-International-Swan-Census.pdf

Calladine, J., Garner, G., Wernham, C., & Thiel, A. (2009). The influence of survey frequency on population estimates of moorland breeding birds. Bird Study, 56(3), 381-388. https://doi.org/10.1080/00063650902984604

CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Chartered Institute of Ecology and Environmental Management, Romsey, UK. Available at: https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/

CIEEM (2024). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester, UK. Available at: https://cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf

Colhoun, K., Flannelly, F., O'Neill, J., Phelan, E., Servignat, H., O'Donoghue, B., & Kelly, S. (2022). Status and distribution of breeding Eurasian Curlew in Ireland 2021. Irish Wildlife Manuals, (138).https://www.npws.ie/sites/default/files/publications/pdf/IWM138.pdf

Copland, A.S., Cullen, C., Ryan, T., Murphy, J.N., Doyle, S., Cregg, P. and Kelly, S.B.A. (2022). Confirming breeding of Common Crane *Grus grus* inn Ireland 2019-2021. *Irish Birds,* 44, 99-103.

Council Directive 2009/147/EC 30 November 2009 on the conservation of wild birds. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147

Council Directive 2014/52/EU 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0052&rid=1

Craig, G. R., White, G. C., & Enderson, J. H. (2004). Survival, recruitment, and rate of population change of the peregrine falcon population in Colorado. *The Journal of wildlife management*, *68*(4), 1032-1038. https://doi.org/10.2193/0022-541X(2004)068[1032:SRAROP]2.0.CO;2

Cullen, C. (2024). The breeding status of Eurasian Crane *Grus grus* in Ireland 2019–2023. *Irish Birds*, *46*, 85–87.

Department of Arts, Heritage and the Gaeltacht (2017). *National Biodiversity Action Plan 2017–2021: Actions for Biodiversity*. Dublin: Government of Ireland.

DoHPLG (2018). Guidelines for planning authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. Department of Housing, Planning and Local Government, Government of Ireland, Dublin. Available at: https://www.gov.ie/en/publication/53aee9-guidelines-for-planning-authorities-and-an-bord-pleanala-on-carrying/

Dorka, U., Straub, F. and Trautner, J., (2014). Wind power above forest-courtship of the woodcook at risk? Findings from a case study in Baden-Wuerttemberg (northern black forest). https://www.cabidigitallibrary.org/doi/full/10.5555/20143125504

Drewitt, A. L., & Langston, R. H. (2006). Assessing the impacts of wind farms on birds. Ibis, 148, 29-42. https://doi.org/10.1111/j.1474-919X.2006.00516.x

Drewitt, A. L., & Langston, R. H. (2008). Collision effects of wind-power generators and other obstacles on birds. Annals of the New York Academy of Sciences, 1134(1), 233-266. https://doi.org/10.1196/annals.1439.015

Duffy, K., and Steward, M. (2008). *Turbine search methods and carcass removal trials at the Braes of Doune windfarm* (No. 4). Natural Research Information Note. Available at: https://tethys.pnnl.gov/sites/default/files/publications/Duffy-2008.pdf

Edkins, A. (2014). Impacts of wind energy developments on birds and bats: looking into the problem. https://tethys.pnnl.gov/sites/default/files/publications/Edkins-2014.pdf

EPA (2022). Guidelines on the information to be contained in Environmental Impact Statement reports. Environmental Protection Agency, Johnstown Castle Estate, Wexford. Available at: https://www.epa.ie/publications/monitoring–assessment/assessment/EIAR_Guidelines_2022_Web.pdf

European Commission (2002). Assessment of plans and projects significantly affecting Natura 2000 sites. Publications Office of the European Union, Luxembourg. https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

European Commission (2020). Guidance document on wind energy developments and EU nature legislation. Publications Office of the European Union, Luxembourg. https://ec.europa.eu/environment/nature/natura2000/management/docs/wind_farms_en.pdf

European Communities (Noise Emission by Equipment For Use Outdoors) Regulations, 2001, No. 632/2001. Dublin: Stationary Office. Available at: https://www.irishstatutebook.ie/eli/2001/si/632/made/en/print

European Union (2022) Article 12 web tool. Available at: https://nature-art12.eionet.europa.eu/article12/

Evans, P. R., and Pienkowski, M. W. (1984). Population dynamics of shorebirds. In *Shorebirds: Breeding behaviour and populations* (pp. 83-123). Boston, MA: Springer US. https://link.springer.com/chapter/10.1007/978-1-4684-4691-3_3

Fernández-Bellon, D., Wilson, M. W., Irwin, S., Kelly, T. C., O'Mahony, B., & O'Halloran, J. (2017). Activity patterns of breeding Hen Harriers Circus cyaneus assessed using nest cameras. *Bird Study*, *64*(4), 557-561. https://doi.org/10.1080/00063657.2017.1383969

Fernley, J., Lowther, S., & Whitfield, P. (2006). A review of goose collisions at operating wind farms and estimation of the goose avoidance rate. *Report, Natural Research Lim., West Coast Energy, Hyder Consulting*. Available at: https://cdn.birdlife.se/wp-content/uploads/2019/01/Goose-Avoidance-Rate.pdf

Forestry Commission Scotland (2006). Forest operations and birds in Scottish forests - the law and good practice. FCS Guidance Note 32, Forestry Commission Scotland, Inverness, Scotland.

Fossitt, J.A. (2000). *A guide to habitats in Ireland*. Heritage.

Fox, A.D., Glahder, C.M. and Walsh, A.J. (2003) Spring migration routes and timing of Greenland white-fronted geese – results from satellite telemetry. *Oikos Advanced Ecology*, 103(2), 415-425. Available at: https://doi.org/10.1034/j.1600-0706.2003.12114.xDigital Object Identifier (DOI)

Gilbert, G., Gibbons, D.W. and Evans, J. (1998) *Bird monitoring methods.* Bedfordshire, England: Pelagic Publishing, Royal Society for the protection of Birds.

Gilbert, G., Stanbury, A., and Lewis, L. (2021). Birds of conservation concern in Ireland 4: 2020–2026. *Irish Birds*, *43*, 1-22. Available at: https://birdwatchireland.ie/birds-of-conservation-concern-in-ireland/

Gillings, S., and Fuller, R. J. (1999). Winter ecology of golden plovers and lapwings: A review and consideration of extensive survey methods. Thetford, UK: British Trust for Ornithology. Available at: https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/1999/rr224.pdf

Goodship, N. M., and Furness, R. W. (2022). NatureScot Research Report 1283-Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. Available at: https://www.nature.scot/doc/naturescot-research-report-1283-disturbance-distances-review-updated-literature-review-disturbance

Hafner, H., Kayser, Y., Boy, V., Fasola, M., Julliard, A. C., Pradel, R., & Cézilly, F. (1998). Local survival, natal dispersal, and recruitment in Little Egrets Egretta garzetta. *Journal of Avian Biology*, 216-227. https://doi.org/10.2307/3677103

Hardey, J., Crick, H.Q.P., Wernham, C.V., Riley, H., Etheridge, B. and Thompson, D.B.A. (2013). Raptors: a field guide for surveys and monitoring [3rd Edition]. The Stationary Office, Edinburgh.

Hoodless, A., and Coulson, J.C. (1994) Survival rates and movements of British and Continental Woodcock *Scolopax rusticola* in the British Isles. *Bird Study*, 41(1), 48-60. https://doi.org/10.1080/00063659409477197

Hötker, H., Thomsen, K. M., & Jeromin, H. (2006). *Impacts on biodiversity of exploitation of renewable energy sources: the example of birds and bats: Facts, gaps in knowlegde, demands for further research, and ornithological guidelines for the development of renewable energy exploitation*. Books on Demand. Books on Demand.Available at: https://tethys.pnnl.gov/sites/default/files/publications/Hotker_et_al_Renewable_Energy_on_Biodiversity.pdf

International Convention on Wetlands of International Importance. (1975). United Nations Treaty Series 996, entered into force 21 December 1975. Available at: https://treaties.un.org/doc/Publication/UNTS/Volume%20996/volume-996-I-14583-English.pdf

Jenkins, D. (1961) Population control in protected partridges (*Perdix perdix*). Journal of Animal Ecology, 30(2), 235. Available at: https://www.researchgate.net/publication/271686471_Population_Control_in_Protected_Partridges_Perdix_perdix

Ketzenberg, C., Exo, K. M., Reichenbach, M., and Castor, M. (2002). Einfluss von Windkraftanlagen auf brütende Wiesenvögel. *Natur und Landschaft*, *77*(4), 144-153.

Kildare County Council (2023) Kildare County Development Plan 2023-2029. Kildare County Council, Áras Chill Dara, Devoy Park, Naas, Co. Kildare. Available at: https://kildarecoco.ie/allservices/planning/developmentplans/kildarecountydevelopmentplan2023-2029/

Kildare County Council (2026) Kildare Biodiversity Action Plan 2026-2031. Kildare County Council, Áras Chill Dara, Devoy Park, Naas, Co. Kildare. Available at: https://kildarecoco.ie/AllServices/Heritage/BiodiversityandNaturalHeritage/KildareBiodiversityActionPlan/BiodiversityPlanforCountyKildare2026-2031/

Länderarbeitsgemeinschaft der Vogelschutzwarten (2015) Recommendations for distances of wind turbines to important areas for birds as well as breeding sites of selected bird species. Ber. Vogelschutz, 51, 15–42.

Langston, R., and Pullan, J. D. (2003). Wind farms and birds: an analysis of the effects of wind farms on birds, and guidance on environmental assessment criteria and site selection issues. Council of Europe. Available at: https://tethys.pnnl.gov/sites/default/files/publications/Langston%20and%20Pullan%202003.pdf

Largey, N., Edwards, H., Fernández-Bellon, D. and Doyle, S. (2026). Implications of surveyor accuracy in bird flight height estimation for wind farm collision risk assessment. *Ecological Solutions and Evidence,* 7(2): e70238.

Lieske, D. J., Warkentin, I. G., James, P. C., Oliphant, L. W. and Espie, R. H. (2000). Effects of Population Density on Survival in Merlins. The Auk 117(1), 19. Available at: https://digitalcommons.usf.edu/auk/vol117/iss1/19

Madders, M., and Whitfield, D. P. (2006). Upland raptors and the assessment of wind farm impacts. Ibis, 148, 43-56. https://doi.org/10.1111/j.1474-919X.2006.00506.x

McGuinness, S., Muldoon, C., Tierney, N., Cummins, S., Murray, A., Egan, S., & Crowe, O. (2015). Bird sensitivity mapping for wind energy developments and associated infrastructure in the Republic of Ireland. *BirdWatch Ireland, Kilcoole, Wicklow*. Available at: https://birdwatchireland.ie/app/uploads/2019/09/BWI-Bird-Wind-Energy-devt-Sensitivity-Mapping-Guidance_document.pdf

Meredith, C., Venosta, M., & Ressom, R. (2002). Codrington Wind Farm avian avoidance behaviour report. *Biosis Research Report on project no. 2704*.

Morgan, R., & Shorten, M. (1974). Breeding of the Woodcock in Britain. *Bird Study*, *21*(3), 193-199. https://doi.org/10.1080/00063657409476418

National Survey of Breeding Hen Harrier in Ireland. Irish Wildlife Manuals, No. 93. National Parks and Wildlife Service, Department of the Arts, Heritage and the Gaeltacht, Ireland. Available at: https://www.npws.ie/sites/default/files/publications/pdf/IWM93.pdf

NatureScot (2024). Guidance on using an updated collision risk model to assess bird collision risk at onshore wind farms. NatureScot, Inverness, Scotland. Available at: https://www.nature.scot/doc/guidance-using-updated-collision-risk-model-assess-bird-collision-risk-onshore-wind-farms

NatureScot (2025). Recommended bird survey methods to inform impact assessment of onshore wind farms. NatureScot, Inverness, Scotland. Available at: https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms

NatureScot (2025a). Guidance - Assessing the cumulative impacts of onshore wind farms on birds. NatureScot, Inverness, Scotland. Available at: https://www.nature.scot/doc/guidance-assessing-cumulative-impacts-onshore-wind-farms-birds

NatureScot (2025b). Guidance - Assessing the significance of impacts on bird populations from onshore wind farms that do not affect protected areas. NatureScot, Inverness, Scotland. Available at: https://www.nature.scot/doc/guidance-note-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect

NPWS (2023) Ireland's 4th National Biodiversity Action Plan 2023-2030. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland. Available at: https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf

NRA (2009). Guidelines for Assessment of Ecological Impacts of National Road Schemes. National Roads Authority, Ireland. https://www.tii.ie/technical-services/environment/planning/Guidelines-for-Assessment-of-Ecological-Impacts-of-National-Road-Schemes.pdf

O'Donoghue (2019). Hen Harrier Roost Types and Guidelines to Roost Watching. Hen Harrier Winter Survey Report. Available at: http://www.ihhws.ie/IHHWS_Guide.pdf

Offaly County Council (2021) Offaly County Development Plan 2021-2027. Offaly County Council, Áras an Chontae, Charleville Road, Tullamore, Co. Offaly. Available at: https://www.offaly.ie/c/county-development-plan/

Offaly County Council (2025) Offaly Biodiversity Action Plan 2025-2030. Offaly County Council, Áras an Chontae, Charleville Road, Tullamore, Co. Offaly. Available at: https://www.offaly.ie/offaly-heritage-plan/offaly-biodiversity-action-plan/

Orta, J., Boesman, P.F.D. and Marks, J.S. (2020). "Eurasian Kestrel (Falco tinnunculus)". In: Billerman, S.M., Keeney, B.K., Rodewald, P.G. and Schulenberg, T.S. (eds). *Birds of the World*. Ithaca, NY, USA: Cornell Lab of Ornithology.

Peach, W. J., Thompson, P. S., and Coulson, J. C. (1994). Annual and long-term variation in the survival rates of British lapwings Vanellus vanellus. Journal of Animal Ecology, 60-70. *https://doi.org/10.2307/5583*

Pearce-Higgins, J. W., Stephen, L., Douse, A., & Langston, R. H. (2012). Greater impacts of wind farms on bird populations during construction than subsequent operation: results of a multi-site and multi-species analysis. *Journal of Applied Ecology*, *49*(2), 386-394.https://doi.org/10.1111/j.1365-2664.2012.02110.x

Pearce-Higgins, J. W., Stephen, L., Langston, R. H., Bainbridge, I. P., & Bullman, R. (2009). The distribution of breeding birds around upland wind farms. *Journal of Applied ecology*, *46*(6), 1323-1331. https://doi.org/10.1111/j.1365-2664.2009.01715.x

Percival, S. M. (2003). Birds and wind farms in Ireland: a review of potential issues and impact assessment. *Ecology Consulting*, *17*, 2234-2236. Available at: https://tethys.pnnl.gov/sites/default/files/publications/Percival_2003.pdf

Picozzi, N. (1984). Sex ratio, survival and territorial behaviour of polygynous Hen Harriers Circus c. cyaneus in Orkney. *Ibis*, *126*(3), 356-365. https://doi.org/10.1111/j.1474-919X.1984.tb00256.x

Planning and Development Act 2000. No. 30/2000, Dublin: Stationary Office. Available at: https://www.irishstatutebook.ie/eli/2000/act/30/enacted/en/html

Ruddock, M., & Whitfield, D. P. (2007). A review of disturbance distances in selected bird species. *A report from Natural Research (Projects) Ltd to Scottish Natural Heritage*, *181*, 114-125. Available at: https://www.nature.scot/sites/default/files/2018-05/A%20Review%20of%20Disturbance%20Distances%20in%20Selected%20Bird%20Species%20-%20Natural%20Research%20Ltd%20-%202007.pdf

Ruddock, M., Mee, A., Lusby, J., Nagle, A., O'Neill, S. and O'Toole, L. (2016). The 2015

Sandercock, B. K. (2003). Estimation of survival rates for wader populations: a review of mark-recapture methods. *Bulletin-Wader Study Group*, *100*, 163-174. Available at: https://sora.unm.edu/sites/default/files/journals/iwsgb/v100/p00163-p00174.pdf

Schweizer A.M. (2024) *Quantifying the effects of outdoor activities on ecological systems*. Master's Dissertation, University of Bayreuth.

SNH (2009). Monitoring the impact of onshore wind farms on birds. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2017-09/Guidance%20Note%20-%20Monitoring%20the%20impact%20of%20onshore%20windfarms%20on%20birds.pdf

SNH (2016). Assessing connectivity with Special Protection Areas (SPAs). Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2018-08/Assessing%20connectivity%20with%20special%20protection%20areas.pdf

SNH (2017). Recommended bird survey methods to inform impact assessment of onshore wind farms. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-%20Recommended%20bird%20survey%20methods%20to%20inform%20impact%20assessment%20of%20onshore%20windfarms.pdf

Spence, I. M. (1988). Mortality of snipe estimated from a mark and recapture study. *Ringing & Migration*, *9*(1), 27-31. https://doi.org/10.1080/03078698.1988.9673918

Thaxter, C. B., Lascelles, B., Sugar, K., Cook, A. S., Roos, S., Bolton, M., and Burton, N. H. (2012). Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. *Biological Conservation*, *156*, 53-61. https://doi.org/10.1016/j.biocon.2011.12.009

Thaxter, C. B., Quinn, L. R., Atkinson, P. W., Booth Jones, K. A., Clark, N. A., Clewley, G. D., Green, R. M. W., O'Hanlon, N. J. and Johnston, D. T. (2025) Breeding and foraging habitat are important in determining foraging ranges of sympatric generalist species. *IBIS,* 168(1), 259-292. https://doi.org/10.1111/ibi.13446

TII (2021). Survey and Mitigation Standards for Barn Owls to inform the Planning, Construction and Operation of National Road Projects. Standards and Research Section, Transport Infrastructure Ireland, Dublin, Ireland. Available at: https://www.tiipublications.ie/library/PE-ENV-07005-01.pdf

Wanless, S., Harris, M.P., Calladine, J. and Rothery, P. (1996). Modelling responses of herring gull and lesser black backed gull populations to reduction of reproductive output: Implications for control measures. *Journal of Applied Ecology*, 33(6), 1420-1432. https://doi.org/10.2307/2404781

Weiser, E.L., Overton, C.T., Douglas, D.C., Casazza, M.L. and Flint, P.L. (2024) Geese migrating over the Pacific Ocean select altitudes coinciding with offshore wind turbine blades. *Journal of Applied Ecology,* 61(5), 951-962. Available at: https://doi.org/10.1111/1365-2664.14612Digital Object Identifier (DOI)

Wildlife Act 1976, No. 39/1976, Dublin: Stationary Office. Available at: http://www.irishstatutebook.ie/eli/1976/act/39/enacted/en/html?q=wildlife+act

Wilson, M. W., Fernández-Bellon, D., Irwin, S., & O'Halloran, J. (2017). Hen Harrier Circus cyaneus population trends in relation to wind farms. *Bird Study*, *64*(1), 20-29. https://doi.org/10.1080/00063657.2016.1262815

Winkelman, J.E. (1992) The impact of the Sep wind park near Oosterbierum (Fr.), the Netherlands, on birds. RIN-rapport 92/2. DLO-Instituut voor Bos-en Natuuronderzoek, Arnhem, The Netherlands.

8. Land, Soils and Geology

Ballydermot Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Barnaran Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Blackriver Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

British Standards Institution (BSI) (2009). BS 6031:2009 – Code of Practice for Earthworks. British Standards Institution, London.

Codd Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (20236.

Department of Housing, Planning and local Government, 2018: Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Derrybrennan Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

Environmental Protection Agency (EPA). EPA Maps. Available at: https://gis.epa.ie (last accessed 30th June 2026).

European Environment Agency (EEA). CORINE Land Cover (CLC) Dataset. Copernicus Land Monitoring Service. Available at: https://land.copernicus.eu/pan-european/corine-land-cover (Last accessed: 30th June 2026).

European Union, (2017): Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

Fehily Timoney and Company (2026a): Geotechnical and Peat Stability Report: Ballydermot Wind Farm.

Fehily Timoney (2026b) Peat and Spoil Management Plan: Ballydermot Wind Farm.

Geological Survey Ireland (GSI). GSI Geoportal and Online Data Services. Available at: https://www.gsi.ie (Last accessed: 30th June 2026).

Geological Survey of Ireland (GSI). (1994), 1:100,000 scale Bedrock Geology Series. Sheet 16 (Kildare – Wicklow).

Glashabaun Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Grzywna, A. (2017). The degree of peatland subsidence resulting from drainage of land. *Environ Earth Sci* 76, 559.

Institute of Geologists Ireland (2013): Guidelines for Preparation of Soils, Geology & Hydrogeology Chapters in Environmental Impact Statements.

Killinagh Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Lodge Bog Cutaway Bog Decommissioning and Rehabilitation Plan (2022).

Lullybeg Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

Lullymore Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

National Roads Authority (2008): Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

Ordnance Survey Ireland (OSI) / Tailte Éireann. GeoHive – Aerial Photography and Historic Mapping. Available at: https://www.geohive.ie/ (Last accessed: 30th June 2026).

Regan, S., Flynn, R., Gill, L., Naughton, O., and Johnston, P. (2019). Impacts of groundwater drainage on peatland subsidence and its ecological implications on an Atlantic raised bog. *Water Resources Research*, 55.

Scottish Natural Heritage (2013) Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms

Skempton, A.W. and DeLory, F.A. (1957). Stability of Natural Slopes in London Clay. *Proceedings of the 4th International Conference on Soil Mechanics and Foundation Engineering*, London, Volume 2, pp. 378–381

Teagasc, Environmental Protection Agency and Geological Survey Ireland (2006). National Soils Map of Ireland. Teagasc, EPA and GSI

Ticknevin Bog Draft Cutaway Bog Decommissioning and Rehabilitation Plan (2026).

9. Water

CIRIA, 2006: Control of Water Pollution from Construction Sites - Guidance for Consultants and Contractors. CIRIA C532. London, 2006.

CIRIA, 2006: Guidance on 'Control of Water Pollution from Linear Construction Projects' (CIRIA Report No. C648, 2006).

Coillte (2013). Forest Operations and Water Protection Guidelines. Coillte, Ireland.

Department of Agriculture, Food and the Marine (DAFM) (2018). Forests and Water, Achieving Objectives under Ireland's River Basin Management Plan 2018–2021. Department of Agriculture, Food and the Marine, Ireland.

Department of Housing, Planning and Local Government (2019). Draft Revised Wind Energy Development Guidelines. Government of Ireland, Dublin.

Department of Housing, Planning, Community and Local Government (2017). Circular Letter PL 1/2017: Implementation of Directive 2014/52/EU on the Effects of Certain Public and Private Projects on the Environment (EIA Directive). Government of Ireland

Department of the Environment, Heritage and Local Government (DoEHLG) and Office of Public Works (OPW) (2009). The Planning System and Flood Risk Management: Guidelines for Planning Authorities. Government of Ireland, Dublin

Department of the Environment, Northern Ireland (DoE/NIEA) (2015). Wind Farms and Groundwater Impacts: A Guide to EIA and Planning Considerations. Version 1.1, April 2015. Department of the Environment, Northern Ireland.

DoHLG, 2006: Wind Farm Development Guidelines for Planning Authorities.

EPA (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

EPA, 2003: Advice Notes on Current Practice (in the preparation of Environmental Impact Statements).

EPA, 2008: Strive Report Series No. 6, Water Framework Directive – Recharge and Groundwater Vulnerability.

Forest Service (2000b). Forestry and Water Quality Guidelines. Department of the Marine and Natural Resources, Ireland.

Forest Service (2002). Forest Protection Guidelines. Department of Communications, Marine and Natural Resources, Ireland.

FTC (2026a): Geotechnical and Peat Stability Risk Assessment – Ballydermot Wind Farm.

FTC (2026b): Peat and Spoil Management Plan – Ballydermot Wind Farm

GSI (2003): Bagenalstown Upper Groundwater Body Characterisation Report.

GSI (2003): Cushina Groundwater Body Characterisation Report.

GSI (2003): Dublin Groundwater Body Characterisation Report.

GSI (2003): Kildare Groundwater Body Characterisation Report.

GSI (2003): Trim Groundwater Body Characterisation Report.

IFI, 2016: Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, Inland Fisheries Ireland (2016).

IGI, 2013: Guidelines for Preparation of Soils, Geology & Hydrogeology Chapters in Environmental Impact Statements, (Institute of Geologists Ireland, 2013).

NRA, 2008: Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes, (National Roads Authority, NRA, 2008).

PPG1 - General Guide to Prevention of Pollution (UK Guidance Note).

PPG5 – Works or Maintenance in or Near Watercourses (UK Guidance Note).

SNH, 2010: Scottish Natural Heritage report (SNH): Good Practice During Wind Farm Construction.

SNH, 2013: Scottish Natural Heritage report (SNH): Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms

10. Air Quality

Ambient Air Quality Standards Regulations 2022 (S.I. No. 739/2022): https://www.irishstatutebook.ie/eli/2022/si/739/made/en/print

Commission Directive (EU) 2015/1480: Commission Directive (EU) 2015/1480 of 28 August 2015 amending several annexes to Directives 2004/1...

Council of the European Union (1999) Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air. Official Journal of the European Union No. L163/41

Council of the European Union (2000) Council Directive 2000/69/EC relating to limit values for benzene and carbon monoxide in ambient air. Official Journal of the European Union No. L313.

Council of the European Union (2002) Council Directive (2002/3/EC) relating to ozone in ambient air. Official Journal of the European Union No. L67/14.

Council of the European Union (2004) Council Directive (2004/107/EC) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air. Official Journal of the European Union No. L23/3.

Council of the European Union (2008) Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe. Official Journal of the European Union No. L152.

Department of Communications, Climate Action and Environment (2024), Climate Action Plan (CAP 2025)

Directive 2008/50/EC (the CAFE Directive): Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

EEA (2026) Air Quality Status in Europe: <https://www.eea.europa.eu/en/analysis/publications/air-quality-status-report-2026>

Environmental Protection Agency (2021). Best Practice Guidelines on the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects.

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

Environmental Protection Agency (2023) Air Quality Standards https://airquality.ie/information/air-quality-standards

Environmental Protection Agency (2024) Air Quality in Ireland 2023. EPA, Ireland.

Environmental Protection Agency (2025) Air Quality in Ireland 2024. EPA, Ireland.

Environmental Protection Agency (2026) Air Quality in Ireland 2025. EPA, Ireland

Environmental Protection Agency (EPA) (2024). Ireland's State of the Environment Report 2024. Environmental Protection Agency, Ireland.

Environmental Protection Agency (EPA) (2025). Summary Tables 2024 for Zones A–D. Environmental Protection Agency, Ireland.

EPA (2026) Irelands Air Pollutant Emissions Trends and Outlook 2026 <https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/irelands-air-pollutant-emissions-trends-and-outlook-2026.php>

European Commission (2017). Guidance on the Preparation of the Environmental Impact Assessment Report.

European Commission (2022), Revision of the Ambient Air Quality Directives. <*https://environment.ec.europa.eu/topics/air/air-quality/revision-ambient-air-quality-directives_en*>

European Environment Agency (2022) Air Quality in Europe - 2022 Report. EEA.

European Union (1996). Directive 1996/62/EC. European Parliament and European Council.

Government of Ireland (1999) Ambient Air Quality Assessment and Management Regulations 1999 (S.I. No. 33 of 1999).

Government of Ireland (1999) Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999.

Government of Ireland (2002) Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002).

Government of Ireland (2004) Ozone in Ambient Air Regulations 2004 (S.I. No. 53 of 2004).

Government of Ireland (2011) Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) as amended by the Air Quality Standards (Amendments).

Government of Ireland (2016) Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Ambient Air Regulations, 2016 (S.I. 659 2016).

Government of Ireland (2024). Clean Air Strategy for Ireland: First Progress Report 2024. Government of Ireland.

Kildare County Development Plan 2023-2029: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Kildare Local Authority Climate Action Plan 2024-2029 (2024). Available at: https://kildarecoco.ie/AllServices/ClimateAction/KildareCountyCouncilClimateActionPlan2024-2029/LocalAuthorityClimateActionPlan20242029.pdf

Offaly County Council Climate Action Plan 2024-2029 (2024). Available at: <https://www.offaly.ie/app/uploads/Offaly-CoCo-Climate-Action-Phase-Two-English-Digital-.pdf>

Offaly County Development Plan 2021-2027: Stage 4 Final Plan - Offaly County CouncilOffaly County Council

Office of Energy Efficiency and Renewable Energy (2024). How Wind Can Help Us Breathe Easier. U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy.

Oosterhuis and Skinner (2004) The Fourth Air Quality Daughter Directive: Impacts and Consequences of Mandatory Limit Values. IEEP Brief number 03/2000.

Rialtas na Eireann (2023) Clean Air Strategy for Ireland Available at: https://www.gov.ie/en/publication/927e0-clean-air-strategy/#:~:text=The%20Clean%20Air%20Strategy%20provides,delivering%20on%20wider%20national%20objectives

The Institute of Air Quality Management (2024) Guidance on the assessment of dust from demolition and construction. https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf

Transport Infrastructure Ireland (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes

Transport Infrastructure Ireland (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes.

Transport Infrastructure Ireland (2022) Air Quality Assessment of Specified Infrastructure Projects – Overarching Technical Documentation PE-ENV-01106.

Transport Infrastructure Ireland (2022) Air Quality Assessment of Proposed National Roads – Standard PE-ENV-01107.

UK Department of Environment Food and Rural Affairs (DEFRA) (2016) Part IV of the Environment Act 1995: Local Air Quality Management Technical Guidance (TG16)

UK Highways Agency (UKHA) (2019) Design Manual for Roads and Bridges (DMRB) – LA 105 Air Quality

World Health Organization (WHO) (2021) Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulphur Dioxide Global Update 2021.

World Health Organization (WHO) (2024). Ambient (Outdoor) Air Pollution. World Health Organization.

11. Climate

Alan J. A. Stewart, & Lance, A. N. (1991) Effects of Moor-Draining on the Hydrology and Vegetation of Northern Pennine Blanket Bog. *Journal of Applied Ecology*, *28*(3), 1105–1117. https://doi.org/10.2307/2404228
Annual Review 2026: Electricity: *https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2026-2-electricity-final.pdf*
Assessing Greenhouse Gas Emissions and Evaluating their Significance (ISEP, 2026): *https://www.isepglobal.org/media/iimlrmqw/2026-04-comms-policy-ia-ghg-assessment.pdf*

Carbon Emissions and Removals from Irish Peatlands: Present Trends and Future Mitigation Measures, Irish Geography 2013 Vol. 46 Nos. 1-2, 1-23 (Wilson et al., 2013): (PDF) Carbon emissions and removals from Irish peatlands: current trends and future mitigation measures

Central Statistics Office 2018 Ecosystems Account of Peatlands and Heathlands (2018) <https://data.cso.ie/table/EAP03>

Clare Noone, Deirdre McClean, Danielle Gallagher, Jennifer McElwain and Peter Thorne (2023) IRELAND'S CLIMATE CHANGE ASSESSMENT Volume 1: Climate Science – Ireland in a Changing World, Environmental Protection Agency, Ireland, 228 pp,

Climate Change Advisory Council (2025) Annual Review 2025 – Our Changing Climate in 2024. Available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC%20AR25%20Our%20Changing%20Climate-final.pdf

Climate Change Performance Index (CCPI) (2022) 2023 Results: Climate Mitigation Efforts of 57 Countries plus the EU. Covering 90% of the Global Greenhouse Gas Emissions. www.ccpi.org

Climate Change Performance Index (CCPI) (2024) Climate Change Performance Index 2024. https://ccpi.org/download/climate-change-performance-index-2024/

Connor McGookin, Abhay Menon, Shane McDonagh, Brian Ó Gallachóir and Paul Deane (2023) IRELAND'S CLIMATE CHANGE ASSESSMENT Volume 2: Achieving Climate Neutrality by 2050, Environmental Protection Agency, Ireland, 226 pp,

Conor Murphy, Liam Heaphy, Tara Quinn, Enda O'Brien and Paul Nolan (2023) IRELAND'S CLIMATE CHANGE ASSESSMENT Volume 3: Being Prepared for Ireland's Future Climate, Environmental Protection Agency, Ireland, 276 pp.

Crippa, M., Guizzardi, D., Pagani, F., Banja, M., Muntean, M. et al., GHG emissions of all world countries - 2025 Report, Publications Office of the European Union, Luxembourg, 2025, doi:10.2760/9816914, JRC143227.

Department of Climate Change, Action & Environment National Energy Efficiency Action Plan (NEEAP).

Department of Climate Change, Action & Environment. Renewable Energy Action Plan (NREA) Submitted under Article 4 of Directive 2009/28/EC.

Department of Communications, Climate Action and Environment (2018). Sustainable Development Goals National Implementation Plan 2018-2020.

Department of Communications, Climate Action and Environment (2015). Climate Action and Low Carbon Development Act 2015.

Department of Communications, Climate Action and Environment (2021). Climate Action and Low Carbon Development (Amendment) Act 2021.

Department of Communications, Climate Action and Environment (2021) Climate Action Plan (CAP).

Department of Environment, Climate and Communications (2022). Climate Action Plan 2023.

Department of Environment, Climate and Communications (2023) Climate Action Plan 2024.

Department of Environment, Climate and Communications (2025) Climate Action Plan 2025.

Department of Environment, Climate and Communications (May 2022). Draft of the Second National Implementation Plan for the SDG Goals 2022-2024.

Department of Housing, Local Government and Heritage (2024) Ireland's Climate Averages 1991–2020 Summary Report. Available at: https://www.met.ie/cms/assets/uploads/2023/09/Irelands-Climate-Averages_1991-2020.pdf

Department of the Environment, Heritage and Local Government (2007) National Climate Change Strategy 2007 – 2012. Stationery Office, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.

Department of the Taoiseach (2020). Programme for Government: Our Shared Future.

Derivation of GHG emission factors for peatlands managed for extraction in the ROI and the UK. (Wilson et al., 2015): BG - Derivation of greenhouse gas emission factors for peatlands managed for extraction in the Republic of Ireland and the United Kingdom

Doddy Clarke, E, Sweeney, C, McDermott, F, et al. Climate change impacts on wind energy generation in Ireland. Wind Energy (2021) 1- 13. DOI: 10.1002/we.2673

EirGrid, Enduring Connection Policy 2.3 Constraints Report for Area H2 Solar and Wind (December 2022). Available at: <https://cms.eirgrid.ie/sites/default/files/publications/ECP-2.3-Solar-and-Wind-Constraints-Report-Results-for-Area-H2-v1.0.pdf>

Environmental Protection Agency (2018). Network Monitoring Rewetted and Restored Peatlands/organic Soils for Climate and Biodiversity Benefits (NEROS), EPA Research Programme 2014-2020, P23, Table 5.2.

Environmental Protection Agency (2021) Climate Status Report for Ireland 2020. Available at: https://www.epa.ie/publications/research/climate-change/research-386-the-status-of-irelands-climate-2020.php

Environmental Protection Agency (2022) Ireland's Greenhouse Gas Emissions Projections 2022-2040.

Environmental Protection Agency (2025) Ireland's National Inventory Report 2025. Available at: https://www.epa.ie/publications/monitoring–assessment/climate-change/air-emissions/Ireland's-NID-2025.pdf

Environmental Protection Agency (June 2022) Ireland's Greenhouse Gas Emissions Projections 2021-2040. EPA, Ireland.

European Commission (2010) Europe 2020 Strategy A European strategy for smart, sustainable and inclusive growth. Brussels.

European Commission (2015). COP21 Paris Agreement. Available at: https://ec.europa.eu/clima/policies/international/negotiations/paris_en

European Commission (2019) COP25 Climate Change Conference. Available at: https://ec.europa.eu/clima/events/cop25-climate-change-conference_en

European Commission (2019) European Green Deal – European Climate Law, 2021.

European Commission (2022) COP27 Climate Change Conference. Available at: https://cop27.eg/#/

European Commission (2023) COP28 Climate Change Conference. Available at: https://www.cop28.com/en/

European Commission, Directorate-General for Environment, *Guidance on integrating climate change and biodiversity into environmental impact assessment –,* Publications Office, 2013, https://data.europa.eu/doi/10.2779/11735

European Environment Agency (2007) Climate Change: The Cost of Inaction and the Cost of Adaptation. Available at: https://www.eea.europa.eu/publications/technical_report_2007_13/download

European Environment Agency (2024) European Climate Risk Assessment. Available at: https://www.eea.europa.eu/publications/european-climate-risk-assessment

European Union (2009) Directive 2009/28/EC on the promotion of the use of energy from renewable sources.
European Union (2014) 2030 Climate and Energy Policy Framework

European Union (2014). Directive 2014/52/EU of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment.

European Union (2018) Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (recast). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018L2001

European Union (2023) Directive (EU) 2023/2413 amending Directive (EU) 2018/2001 as regards the promotion of energy from renewable sources (RED III).

Galvin, L. F. (1976). Physical Properties of Irish Peats. *Irish Journal of Agricultural Research*, *15*(2), 207–221. http://www.jstor.org/stable/25555820

Greenhouse gas Emission Factors. (Wilson et al., 2016b): (PDF) Greenhouse gas emission factors associated with rewetting of organic soils

Greenhouse Gas Management Hierarchy (ISEP): https://www.isepglobal.org/learn/greenhouse-gas-management-hierarchy/

Hansen, J., Sato, M., Kharecha, P. et al. (2011) Earth's Energy Imbalance and Implications. Atmospheric Chemistry and Physics, 11(24), 13421–13449. Available at: https://doi.org/10.5194/acp-11-13421-2011

https://kildarecoco.ie/AllServices/ClimateAction/KildareCountyCouncilClimateActionPlan2024-2029/LocalAuthorityClimateActionPlan20242029.pdf

Intergovernmental Panel on Climate Change (IPCC) (2019) IPCC Special Report on the Ocean and Cryosphere in a Changing Climate, Chapter 6: Extremes, Abrupt Changes and Managing Risk. Available at: https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/08_SROCC_Ch06_FINAL.pdf

Intergovernmental Panel on Climate Change (IPCC) (2021) Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report. Available at: https://www.ipcc.ch/report/ar6/wg1/

Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6): IPCC Sixth Assessment report (AR6): Sixth Assessment Report – IPCC

IPCC (2010). Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties, <https://www.ipcc.ch/site/assets/uploads/2017/08/AR5_Uncertainty_Guidance_Note.pdf – Accessed April 2021>

IPCC Sixth Assessment report (AR6): *Sixth Assessment Report — IPCC*

Ireland's Greenhouse Gas Emissions Projections 2025-2030' (2026): https://www.rte.ie/documents/news/2026/05/epa-report.pdf

IUCN UK Peatland Programme (2024) Peatland Code Version 2.1

Kildare County Council (2024) Implementation Report for Elected Members and Stakeholders 2024. Available at: https://kildarecoco.ie/AllServices/ClimateAction/KildareCountyCouncilClimateActionPlan2024-2029/

Kildare County Council Local Authority Climate Action Plan 2024-2029 (2024). Available at: https://kildarecoco.ie/AllServices/ClimateAction/KildareCountyCouncilClimateActionPlan2024-2029/LocalAuthorityClimateActionPlan20242029.pdf

Kildare County Development Plan 2023-2029 (2021). Available at <https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/ >

Macauley Institute Carbon Calculator for Wind Farms on Scottish Peatlands (Version 2.15.6) (Macauley Institute, 2023)

Met Éireann (2024) Human-caused Climate Change Brings Increased Storm Rainfall. Available at: https://www.met.ie/human-caused-climate-change-brings-increased-storm-rainfall

Met Éireann www.met.ie

Multiyear greenhouse gas balances at a rewetted temperate peatland (Wilson et al., 2016a): Global Change Biology | Environmental Change Journal | Wiley Online Library

National Parks and Wildlife Service (2015) National Peatlands Strategy 2015–2025. National Parks and Wildlife Service.

Nayak et al, (2008 and 2010) and Smith et al, (2011) 'Calculating Carbon Savings from Wind Farms on Scottish Peatlands - A New Approach'

Nolan, P., and J. Flanagan (2020) High-Resolution Climate Projections for Ireland – a Multi-model Ensemble Approach. Environmental Protection Agency. <https://www.epa.ie/publications/research/climate-change/Research_Report_339_Part1.pdf>

Offaly County Council Climate Action Plan 2024-2029 (2024). Available at: https://www.offaly.ie/climate-action-initiatives/

Offaly County Council, 2023. Climate Change Risk Assessment. Available at: *https://www.offaly.ie/app/uploads/KPMG_OffalyCoCo_LACAP_Final-Report_20230202-1.pdf*
Offaly County Development Plan 2021-2027 (2021). Available at < https://www.offaly.ie/c/county-development-plan/>

Peatland Properties Influencing Greenhouse Gas Emissions and Removal (Wilson et al., EPA, 2022): (PDF) Peatland Properties Influencing Greenhouse Gas Emissions and Removal

Peter Thorne, Jean Boucher, Brian Caulfield, Hannah Daly, Paul Deane, Danielle Gallagher, Liam Heaphy, Deirdre McClean, Shane McDonagh, Jennifer McElwain, Connor McGookin, Abhay Menon, Róisín Moriarty, Conor Murphy, Paul Nolan, Clare Noone, Enda O'Brien, Brian Ó Gallachóir, Tadhg O'Mahony, Tim O'Riordan, Tara Quinn, Agnieszka Stefaniec and Diarmuid Torney (2023), IRELAND'S CLIMATE CHANGE ASSESSMENT: Synthesis Report. Environmental Protection Agency, Ireland, 36 pp.

Rajaei, Mozhdeh & Tinjum, James. (2013). Life Cycle Assessment of Energy Balance and Emissions of a Wind Energy Plant. Geotechnical and Geological Engineering. 31. 10.1007/s10706-013-9637-3.

Róisín Moriarty, Tadhg O'Mahony and Agnieszka Stefaniec, Jean L. Boucher, Brian Caulfield, Hannah Daly and Diarmuid Torney, (2023), IRELAND'S CLIMATE CHANGE ASSESSMENT Volume 4: Realising the Benefits of Transition and Transformation, Environmental Protection Agency, Ireland, 284 pp,

Sachs, J.D., Lafortune, G., Fuller, G. (2024). The SDGs and the UN Summit of the Future. Sustainable Development Report 2024. Paris: SDSN, Dublin: Dublin University Press. doi:10.25546/108572

Scottish National Heritage (2003) Wind Farms and Carbon Savings.

Smith, J.U., Graves, P., Nayak, D.R., Smith, P., Perks, M., Gardiner, B., Miller, D., Nolan, A., Morrice, J., Xenakis, G., Waldron, S., and Drew, S. (2011) Carbon implications of windfarms located on peatlands – Update of the Scottish Government Carbon Calculator tool. Final Report, RERAD Report CR/2010/05.

State of Global Climate, 2025 State of the Global Climate 2025

Sustainable Energy Authority Ireland (SEAI) Energy in Ireland 2025 Report. (October 2026). https://www.seai.ie/sites/default/files/publications/Energy-in-Ireland-2025.pdf

Tailte Éireann National Land Cover Map (2018) https://tailte.ie/map-shop/professional-map-products/national-land-cover-map/

TII (2020) TII Carbon Assessment Tool (Version 1.0.0).

TII Air Quality Assessment of Proposed National Roads – Standard PE-ENV-01107. (December 2022). (TII 2022a) https://www.tiipublications.ie/library/PE-ENV-01107-01.pdf

TII Carbon Tool for Road and Light Rail Projects: User Guidance Document. GE-ENV-01106. (December 2022). (TII, 2025) https://cdn.tii.ie/publications/GE-ENV-01106-03.pdf

TII Carbon Tool for Road and Light Rail Projects: User Guidance Document. GE-ENV-01106. (December 2022) https://www.tiipublications.ie/library/GE-ENV-01106-01.pdf

TII Climate Assessment of Proposed National Roads – Standard PE-ENV-01105. (December 2022) (TII 2022b) https://www.tiipublications.ie/library/PE-ENV-01105-01.pdf

TII Climate Guidance for National Roads, Light Rail, and Rural Cycleways (Offline & Greenways) - Overarching Technical Document – Overarching Technical Document PE-ENV-01104. (December 2022) (TII 2022c) https://www.tiipublications.ie/library/PE-ENV-01104-01.pdf

UNEP (2025) Emissions Gap Report 2025: Off target - Continued collective inaction puts global temperature goal at risk

UNFCCC (1997) Kyoto Protocol to the United Nations Framework Convention on Climate Change adopted at COP3 in Kyoto, Japan, on 11 December 1997

UNFCCC (2012) Doha Climate Change Conference United Nations Framework Convention on Climate Change

United Nations (1998). Kyoto Protocol to the United Nations Framework Convention on Climate Change. United Nations Framework Convention on Climate Change, Bonn.

United Nations (2012). Doha Amendment to the Kyoto Protocol. United Nations Framework Convention on Climate Change.

United Nations (2015) Transforming our World: the 2030 Agenda for Sustainable Development. Available at: https://sustainabledevelopment.un.org/sdgs

United Nations (2024). The Sustainable Development Goals Report 2024

von Schuckmann, K., Palmer, M.D., Trenberth, K.E. et al. (2016) An Imperative to Monitor Earth's Energy Imbalance. Nature Climate Change, 6(2), 138–144. Available at: https://doi.org/10.1038/nclimate2876

Wiser, R., Z. Yang, M. Hand, O. Hohmeyer, D. Infield, P. H. Jensen, V. Nikolaev, M. O'Malley, G. Sinden, A. Zervos, 2011: Wind Energy. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation [O. Edenhofer, R. Pichs-Madruga, Y. Sokona, K. Seyboth, P. Matschoss, S. Kadner, T. Zwickel, P. Eickemeier, G. Hansen, S. Schlömer, C. von Stechow (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

World Meteorological Organization (2026) State of the Global Climate 2025

12. Noise & Vibration

BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Noise. (BS5228-1)

BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration. (BS5528-2)

BS 7385 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration (1993) (BS77385)

BSI (2003). BS ISO 226:2003 Acoustics – Normal Equal-Loudness Level Contours.

BSI (2014/2019). BS 4142:2014+A1:2019 – Methods for Rating and Assessing Industrial and Commercial Sound.

DEFRA, (2007). Research into Aerodynamic Modulation of Wind Turbine Noise.

Department for Business, Energy & Industrial Strategy (2016). Wind Turbine AM Review: Phase 2 Report, Project No. 3514482A, Issue 3

Department for Energy Security and Net Zero (UK) Assessment and rating of wind turbine noise (2026) (ARWTN)

Department of Environment Food and Rural Affairs (DEFRA), the Department of Business, Enterprise and Regulatory Reform (BERR) and the Department of Communities and Local Government (CLG) Research into Aerodynamic Modulation of Wind Turbine Noise (2007)

Department of Housing, Local Government and Heritage (2019). Draft Revised Wind Energy Development Guidelines.

Department of the Environment, Heritage and Local Government (2006) Wind Energy Development Guidelines.

Department of Trade & Industry (UK) Energy Technology Support Unit (ETSU) publication The Assessment and Rating of Noise from Wind Farms (1996) (ETSU-R-97)

Design Manual for Roads and Bridges, Sustainability & Environment Appraisal LA 111 Noise and Vibration Revision 2 (National England (now National Highways) 2020) (DMRB)

Draft Revised Wind Energy Development Guidelines 2019 Department of Housing, Local Government and Heritage

EPA Guidance Note for Noise Assessment of Wind Turbine Operations at EPA Licensed Sites (NG3) (2011)

EPA Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4), 2016 (NG4)

Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022)

Institute of Acoustics (2016). A Method for Rating Amplitude Modulation in Wind Turbine Noise.

Institute of Acoustics (2024). Statement in Respect of Wind Farm Noise Assessment, December 2024

Institute of Acoustics (IOA) document A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (2013) including six Supplementary Guidance Notes (IOA GPG)

International Electrotechnical Commission (2024). IEC TS 61400-11-2:2024 Wind Energy Generation Systems – Part 11-2: Acoustic Noise Measurement Techniques – Measurement of Wind Turbine Sound Characteristics in Receptor Position.

International Electrotechnical Commission (IEC) Technical Specification 61400-11-2 (Edition 1.0, 2024) Wind Energy Generation Systems – Part 11-2: Acoustic noise measurement techniques – Measurement of wind turbine sound characteristics in receptor position (Hereafter TS 61400-11-2)

IOA Noise Working Group (Wind Turbine Noise) Amplitude Modulation Working Group (AMWG) document A Method for Rating Amplitude Modulation in Wind Turbine Noise (IOA, 2016)

ISO (2017). ISO 1996: Acoustics – Description, Measurement and Assessment of Environmental Noise.

ISO 1996: 2017: Acoustics — Description, measurement, and assessment of environmental noise.

ISO 9613: Acoustics — Attenuation of sound during propagation outdoors, Part 2: General method of calculation (1996)

ISO 9613: Acoustics – Attenuation of sound outdoors, Part 2: Engineering method for the prediction of sound pressure levels outdoors (2024)

RenewableUK (2013). Research document cited in the chapter in relation to amplitude modulation, Module F

RenewableUK AM project (RenewableUK 2013)

South Australian Environment Protection Authority namely, Infrasound levels near windfarms and in other environments (EPA, 2013)

State Office for the Environment (2016) Measurement and Nature Conservation of the Federal State of Baden-Württemberg Low Frequency Noise incl. Infrasound from Wind Turbines and Other Sources

Transport Infrastructure Ireland (TII) (formerly National Roads Authority (NRA)) document Guidelines for the Treatment of Noise and Vibration in National Road Schemes (NRA, 2004)

Transport Infrastructure Ireland / National Roads Authority (2014). Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes.

Wind turbine AM review: Phase 2 report. 3514482A Issue 3. Department for Business, Energy & Industrial Strategy (2016)

World Health Organisation (WHO) document Community Noise (WHO, 1995)

World Health Organisation (WHO) Environmental Noise Guidelines for the European Region (2018)

13. Landscape and Visual

Department of Arts, Heritage and the Gaeltacht (2015) National Landscape Strategy for Ireland 2015–2025. Available at: https://assets.gov.ie/static/documents/national-landscape-strategy-for-ireland-2015-2025-9ce09c1d-594f-48df-ae6d-f5171f39d6d4.pdf

Department of Housing, Planning and Local Government (2019) Draft Revised Wind Energy Development Guidelines. Available at: https://assets.gov.ie/static/documents/draft-revised-wind-energy-development-guidelines-december-2019-385c92c2-16f9-4511-80bf.pdf

Department of the Environment, Heritage and Local Government (2000) Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/landscape-and-landscape-assessment/

Department of the Environment, Heritage and Local Government (2006) Wind Energy Development Guidelines for Planning Authorities. Available at: https://assets.gov.ie/static/documents/wind-energy-development-guidelines-2006.pdf

Environmental Protection Agency (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Available at: https://www.epa.ie/publications/monitoring–assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Institute of Environmental Management and Assessment and Landscape Institute (2013) Guidelines for Landscape and Visual Impact Assessment. 3rd edn.

Kildare County Council (2023) Kildare County Development Plan 2023–2029. As amended by Variation No. 4 (2026). Available at: https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/KildareCountyDevelopmentPlan2023-2029/

Kildare County Council (2026) Kildare Landscape Character Assessment. Appendix 13 to the Kildare County Development Plan 2023–2029. Available at: https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/VariationNo4LandscapeCharacterAssessment/Variation%20No.%204%20%20Amendments%20to%20Vol.1.pdf

Kildare County Council (2026) Wind Energy Strategy. Appendix 2 to the Kildare County Development Plan 2023–2029, as amended by Variation No. 4. Available at: https://consult.kildarecoco.ie/en/consultation/draft-kildare-county-development-plan-2023-2029/chapter/2-wind-energy-strategy

Landscape Institute (2019) Visual Representation of Development Proposals. Technical Guidance Note 06/19.

Landscape Institute (2024) Notes and Clarifications on Aspects of GLVIA3. Technical Guidance Note 2024-01.

Laois County Council (2021) Laois County Development Plan 2021–2027. Available at: https://consult.laois.ie/en/consultation/laois-county-development-plan-2021-2027

Meath County Council (2007) County Meath Landscape Character Assessment. Available at: https://countydevelopmentplan.meath.ie/wp-content/uploads/2012/05/appendix-7-landscape-character-assessment1.pdf

Meath County Council (2021) Meath County Development Plan 2021–2027. Available at: https://www.meath.ie/council/council-services/planning-and-building/development-plans/meath-county-development-plan

NatureScot (2021) Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments. Available at: https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments

Offaly County Council (2021) Offaly County Development Plan 2021–2027. Available at: https://www.offaly.ie/8-offaly-county-development-plan-2021-2027-as-varied/

Offaly County Council (2021) Wind Energy Strategy. Available at: https://www.offaly.ie/app/uploads/County-Wind-Energy-Strategy_as-varied-1.pdf

Scottish Natural Heritage (2002) Visual Assessment of Wind Farms: Best Practice.

Scottish Natural Heritage (2014) Visual Representation of Wind Farms. Version 2. Available at: https://www.nature.scot/sites/default/files/2019-09/Guidance%20-%20Visual%20representation%20of%20wind%20farms%20-%20Feb%202017.pdf

Scottish Natural Heritage (2015) Spatial Planning for Onshore Wind Turbines: Natural Heritage Considerations.

Scottish Natural Heritage (2017) Siting and Designing Wind Farms in the Landscape. Version 3a. Available at: https://www.nature.scot/doc/siting-and-designing-wind-farms-landscape-version-3a

Scottish Natural Heritage (2017) Visual Representation of Wind Farms. Version 2.2. Available at: https://www.nature.scot/sites/default/files/2019-09/Guidance%20-%20Visual%20representation%20of%20wind%20farms%20-%20Feb%202017.pdf

UNESCO (2022) Guidance and Toolkit for Impact Assessments in a World Heritage Context. Available at: https://whc.unesco.org/en/guidance-toolkit-impact-assessments/

UNESCO (2022) Guidance for Wind Energy Projects in a World Heritage Context. Available at: https://whc.unesco.org/en/news/2539

Westmeath County Council (2021) Westmeath County Development Plan 2021–2027. Available at: https://www.westmeathcoco.ie/en/ourservices/planning/developmentplans/countydevelopmentplan2021-2027/

14. Cultural Heritage

Architectural Heritage Guidelines for Planning Authorities (2011)

Department of Arts, Heritage, Gaeltacht and the Islands, 1999, Framework and Principles for the Protection of the Archaeological Heritage, 1999.

Guidelines on the information to be contained in Environmental Impact Statements, EPA 2022.

Guidance on Setting and the Historic Environment, Historic Environment Division, February 2018.

Kildare County Council, 2023. Kildare County Development Plan 2023-2029. Available at: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Leigh, J., 2016. Geophysical Survey Report Lullymore East, Ecclesiastical Site, County Kildare. Unpublished report.

O'Carroll, E. & Whitaker, J., 1998. Archaeological Survey of Ireland Peatland Survey, Allen Bog Group.

Offaly County Council, 2021. Offaly County Development Plan 2021-2027. Available at: https://www.offaly.ie/c/county-development-plan/

Transport Infrastructure Ireland, 2025, Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects.

The Paul Hogarth Company, 2024, The Curragh Plains Conservation Management Plan

UNESCO, 2022, Guidance and Toolkit for Impact Assessments in a World Heritage Context.

UNESCO, 2025, Guidance on Wind and Solar Energy Projects in a World Heritage Context.

Whitaker, J., 2004. Archaeological Survey of Ireland Peatland Survey, Allen Bog Group. Unpublished report prepared by ADS Ltd.

Other Sources

Sites and Monuments Record, Co. Kildare

Sites and Monuments Record, Co. Offaly

Record of Monuments and Places, Co. Kildare

Record of Monuments and Places, Co. Offaly

National Monuments in State Care: Ownership & Guardianship – Kildare, 2009. National Monuments Service

National Monuments in State Care: Ownership & Guardianship – Offaly, 2009. National Monuments Service

Preservation Orders, 2009. National Monuments Service

Down Survey barony maps (1656-8) (https://downsurvey.tchpc.tcd.ie/)

Bog commission Maps (1810) (https://virtualtreasury.ie)

First (1829-41), second (1897-1913) and third (1830s -1930s) edition Ordnance Survey (OS) maps (Tailte Éireann)

www.heritagemaps.ie

https://heritagedata.maps.arcgis.com/

https://excavations.ie/

www.buildingsofireland.ie

www.logainm.ie

15. Material Assets

Department of Housing, Planning and Local Government, 2018 Guidelines for Planning Authorities and An Bord Pleanála. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/guidelines-for-planning-authorities-and-an-bord-plean%C3%A1la-on-carrying-out-environmental-impact-assessment-august-2018/

Department of Housing, Planning and Local Government, 2019. Draft Revised Wind Energy Development Guidelines. Available at: https://assets.gov.ie/46097/6e68ea81b8084ac5b7f9343d04f0b0ef.pdf

Department of the Environment, Heritage and Local Government, 2006. Wind Energy Development Guidelines Available at: https://assets.gov.ie/static/documents/wind-energy-development-guidelines-2006.pdf

DN-GEO-03030 Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes, TII, April 2021

DN-GEO-03060, Geometric Design of junctions, TII, May 2023.

EPA, 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports. Available at: https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

ESB Networks, 2019. Code of Practice for Avoiding Danger from Overhead Electricity Lines. Available at: https://www.esbnetworks.ie/docs/default-source/publications/code-of-practice-for-avoiding-danger-from-overhead-electricity-lines.pdf

ESB, 2017. EMF & You: Information about Electric & Magnetic Fields and the electricity transmission system in Ireland. Available at: https://www.esbnetworks.ie/docs/default-source/publications/esb-networks-electrical-and-magnetic-fields-.pdf?sfvrsn=43304888_13

GE-STY-01024 Road Safety Audit Guidelines, TII, December 2017

Health and Safety Authority (HSA), 2016. Code of Practice for Avoiding Danger from Underground Services. Health and Safety Authority, Ireland. Available at: https://www.hsa.ie/publications_and_forms/publications/construction/code_of_practice_for_avoiding_danger_from_underground_services_/

International Finance Corporation (IFC), 2015. Environmental, Health, and Safety Guidelines: Wind Energy. Available at: https://www.ifc.org/content/dam/ifc/doc/2010/2015-wind-energy-ehs-guidelines-en.pdf

Irish Wind Energy Association, 2012. Best Practice Guidelines for the Irish Wind Energy Industry. Available at: https://windenergyireland.com/images/files/9660bdfb5a4f1d276f41ae9ab54e991bb600b7.pdf

Kildare County Development Plan 2023-2029: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Offaly County Council, 2021. Offaly County Development Plan 2021-2027. Available at: https://www.offaly.ie/c/county-development-plan/

PE-PAG-02017, Project Appraisal Guidelines, Unit 5.3, Travel Demand Projections, TII, October 2021;

PE-PDV-02045, Transport Assessment Guidelines, TII, May 2014;

Spatial Planning and National Roads Guidelines for Planning Authorities (TII, January 2012)

Uisce Éireann, n.d. Standard Details and Codes of Practice for Water and Wastewater Infrastructure. Available at: https://www.water.ie/connections/developer-services/technical-guidance-connect

16. Aviation

Department of Defence (2014), Draft Air Corps Wind Farm/Tall Structures Position Paper Available at: https://www.pleanala.ie/publicaccess/EIAR-NIS/311565/4.%20EIAR%20Volume%20II/Annex%2013.2%20-%20Air%20Corps%20Position%20Paper.pdf

Department of Housing, Planning and Local Government / Department of Communications, Climate Action and Environment (2019) Draft Revised Wind Energy Development Guidelines, December 2019. Available at: https://assets.gov.ie/46097/6e68ea81b8084ac5b7f9343d04f0b0ef.pdf

Department of the Environment, Heritage and Local Government (2006) Wind Energy Development Guidelines. Available at: https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/wind-energy-development-guidelines-2006/

Department of Transport, Department of Defence, Irish Aviation Authority, Irish Air Corps, AirNav Ireland (2024) Ireland Airspace Management Policy. Available at: https://www.iaa.ie/docs/default-source/default-document-library/airspace/application-of-flexible-use-of-airspace-in-ireland.pdf?sfvrsn=8c630df3_1

EASA (2025) Easy Access Rules for Standardised European Rules of the Air. Available at: https://www.easa.europa.eu/en/downloads/68174/en>

Environmental Protection Agency (2022): Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. EPA, Wexford

ETSU (1999), The Influence of Colour on the Aesthetics of Wind Turbine Generators, London.

EUROCONTROL (2014) *Guidelines on the Assessment of the Potential Impact of Wind Turbines on Surveillance Sensors*, Edition 1.2. Available at: https://www.eurocontrol.int/publication/eurocontrol-guidelines-assessing-potential-impact-wind-turbines-surveillance-sensors

European Union Aviation Safety Agency (EASA), Study on the Impact of Wind Turbines on Aviation Safety. Available at: https://www.easa.europa.eu/en/newsroom-and-events/news/easa-publishes-study-wind-turbine-impact-aviation-safety

International Civil Aviation Organisation (ICAO) Annex 14 to the Convention on International Civil Aviation, Volume I – Aerodrome Design and Operations. ICAO, Montreal.

Irish AIP ENR (en-route) 5.2 Military Exercise and training Areas. Available at: https://www.airnav.ie/AIRAC_MAY_2026/2026-05-14-AIRAC/html/eAIP/EI-ENR-5.2-en-IE.html

Irish Aviation Authority (2026) Aeronautical Information Publication Available at: https://www.airnav.ie/air-traffic-management/aeronautical-information-management

Irish Aviation Authority (Designated Areas) Order, 2007 (S.I. No. 806/2007). Available at: https://www.irishstatutebook.ie/eli/2007/si/806/made/en/print

Irish Aviation Authority (En Route Obstacles to Air Navigation) Order 1999 (S.I. No. 423 of 1999). Available at: https://www.iaa.ie/publications/docs/default-source/publications/legislation/statutory-instruments-(orders)/irish-aviation-authority-(en-route-obstacles-to-air-navigation)-order-1999

Irish Aviation Authority (Standardised Rules of the Air) Order, 2019 (S.I. No. 266/2019). Available at: https://www.irishstatutebook.ie/eli/2019/si/266/made/en/print

Irish Aviation Authority Act, 1993 (as amended). Available at: https://www.irishstatutebook.ie/eli/1993/act/29/enacted/en/html

Irish Aviation Authority IAA (Obstacles to Aircraft in Flight) Order, 2005 (S.I. No. 215/2005). Available at: https://www.irishstatutebook.ie/eli/2005/si/215/made/en/print

Irish Defence Forces Aeronautical Data: https://www.military.ie/en/public-information/aeronautical-data/

Kern, T. T. (1997). Redefining airmanship. McGraw-Hill

Kildare County Development Plan 2023-2029 (2021). Available at https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/

Offaly County Development Plan 2021-2027 (2021). Available at https://www.offaly.ie/c/county-development-plan/

UK Civil Aviation Authority (2026) CAA policy and Guidelines on Wind Turbines

World Meteorological Organization (September 2010) Commission for Instruments and Methods of Observation – Fifteenth Session. Available at: https://library.wmo.int/records/item/32298-commission-for-instruments-and-methods-of-observation-fifteenth-session#.Xir7MTJKiUk

17. Major Accidents and Natural Disasters

Australian National Emergency Risk Assessment Guidelines (2020) Available at: https://knowledge.aidr.org.au/resources/handbook-nationalemergency-risk-assessment-guidelines/

Best Practice Guidelines on the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects (EPA, 2021): https://www.epa.ie/publications/circular-economy/resources/CDWasteGuidelines.pdf

CSO, Census of Ireland 2022. Available at: https://www.cso.ie/en/statistics/population/censusofpopulation2022/

Department of Defence (2014) Draft Air Corps Wind Farm/Tall Structures Position Paper, Irish Air Corps, Ireland

Department of Environment, Heritage and Local Government, 2024. A Guide to Risk Assessment in Major Emergency Management. Available at: https://assets.gov.ie/static/documents/Guide_to_Regional_Risk_Assessment_September_2024.pdf

Eastern and Midland Regional Assembly, 2019. Regional Spatial and Economic Strategy (RSES) 2019-2031. Available at: https://www.emra.ie/rses/

Environmental Protection Agency, 2014. Guidance on Assessing and Costing Environmental Liabilities. Available at: https://www.epa.ie/publications/compliance–enforcement/licensees/reporting/financial-provisions/guidance-on-assessing-and-costing-environmental-liabilities.php

EPA, 2022. Guidelines on Information to be contained in Environmental Impact Assessment Reports. Available at: https://www.epa.ie/publications/monitoring–assessment/assessment/EIAR_Guidelines_2022_Web.pdf

European Commission, 2017. Guidance on the preparation of Environmental Impact Assessment Reports. Available at: https://op.europa.eu/en/publication-detail/-/publication/2b399830-cb4b-11e7-a5d5-01aa75ed71a1

Fáilte Ireland, 2025. Fáilte Ireland Website. Available at: https://www.failteireland.ie/

Government of Ireland, 2024. National Risk Assessment 2024: Overview of Strategic Risks. Available at: https://www.gov.ie/en/department-of-the-taoiseach/policy-information/national-risk-assessment-2024-overview-of-strategic-risks/

Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations (HAS, 2013): https://www.hsa.ie/media/eq3dfjxk/103525-hsa-3-procurement-guideline-brochure.pdf

Health Service Authority, no date. Health Service Authority advice for Health and Safety in the Renewable Sector. Available at: https://www.hsa.ie/eng/your_industry/renewable_energy/

IPCC, 2021. Climate Change 2021: The Physical Science Basis. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf

Kildare County Council, 2022, Major Emergency Plan. Available at: https://kildarecoco.ie/AllServices/FireService/MajorEmergencyManagement/MajorEmergencyPlanResources/KCC%20Major%20Emergency%20Plan.pdf

Kildare County Council, 2023. Kildare County Development Plan 2023-2029. Available at: Kildare County Development Plan 2023 - 2029 - Kildare County Council

Kildare County Council, 2026. Kildare County Council Website. Available at: Kildare County Council

Kildare Local Authority Climate Action Plan. Available at : Kildare Climate Action Office, Local Authority Climate Action Plan 2024 to 2029

Major Accidents and Disasters in EIA: A Primer (ISEP, 2020): https://www.isepglobal.org/content/major-accidents-and-disasters-in-eia-an-isep-primer-october-2020/

Met Éireann, 2024. Human-caused Climate Change Brings Increased Storm Rainfall. Available at: https://www.met.ie/human-caused-climate-change-brings-increased-storm-rainfall

Met Éireann, no date. Storm Centre. Available at: https://www.met.ie/climate/storm-centre

Offaly County Council, 2019. Major Emergency Plan. Available at: https://www.offaly.ie/app/uploads/Council/Council_Services_A-Z/Emergency_Services/Offaly-County-Major-Emergency-Plan-2019-1.pdf

Offaly County Council, 2021. Offaly County Development Plan 2021-2027. Available at: https://www.offaly.ie/c/county-development-plan/

Offaly County Council, 2023. Climate Change Risk Assessment. Available at: https://www.offaly.ie/app/uploads/KPMG_OffalyCoCo_LACAP_Final-Report_20230202-1.pdf

Offaly County Council, 2026. Offaly County Council Website. Available at: https://www.offaly.ie/

The Planning System and Flood Risk Management: Guidelines for Planning Authorities (DoEHLG, 2009): the-planning-system-and-flood-risk-management-guidelines-for-planning-authorities-nov-.pdf