



MARINE ENERGY WALES

MARINE ENERGY TEST AREA (META)

Environmental Impact Assessment

Appendix 1.1. - Statement of Experience

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Prepared by:

RPS Energy Ltd.

Prepared for:

Marine Energy Wales

A.1.1.1. Introduction

- A.1.1.1.1. Regulation 12 of The Marine Works (Environmental Impact Assessment (EIA)) Regulations 2007 (as amended by the 2017 amendments) requires an EIA to be prepared by competent persons and to be accompanied by a statement outlining the relevant experience and qualifications of authors of technical chapters. To demonstrate that the authors of this Environmental Statement are competent to undertake the assessment, this appendix sets out the biographies for the authors and supporting authors of this EIA which demonstrates their competence in undertaking this EIA. Table 1 details the authors of each chapter, and corresponding biographies are provided for each author, ordered according to chapter, in the remainder of this document. The lead author for each chapter is provided first in Table 1, with supporting authors (where relevant) provided in brackets.
- A.1.1.1.2. The project management team for the production of the Environmental Statement (Nicola Simpson and Ruth De Silva) have also been provided. The Project Management team were responsible for chapter reviews, consistency checks and approval for issue.

Table 1: List of Authors of META chapters

Chapter number	Chapter	Author	Company
1	Introduction		
2	Project Description	Ruth De Silva (Lucie Buckland)	RPS
3	Needs and Alternatives		
4	Environmental Assessment Methodology		
5	Coastal Processes	Naomi Shannon	RPS
6	Underwater Noise	Simon Stephenson	RPS
7	Benthic Subtidal and Intertidal Ecology	Anna Prior	RPS
8	Fish and Shellfish	Adam Payne (Adam Crowther)	RPS
9	Marine Mammals	Tessa McGarry (Lucie Buckland)	RPS
10	Marine Ornithology	Mike Shewring (Kate Davies)	RPS
11	Commercial Fisheries	Adam Payne (Adam Crowther)	RPS
12	Shipping and Navigation	Alexandra Bowers	RPS
-	(Appendix 12.1) Navigational Risk Assessment	William Heaps	Marico Marine
13	Marine Archaeology	Susana Parker (Nick Cooke)	RPS
14	Seascape	Helen Donnelly	RPS
15	Socio-economic and tourism	Stuart Hardisty (Joshua Harding-Jones)	Hardisty Jones Associates
16	Other Users	Alexandra Bowers	RPS

A.1.1.2. Biographies

A.1.1.2.1. Nicola Simpson

- A.1.1.2.1.1. Nicola was Project Director for the production of the META Environmental Statement. Nicola has 20 years' experience in marine consultancy, with specialist expertise in the preparation of scoping documents, the Environmental Impact Assessment (EIA) process and reports to inform the Habitats Regulation Assessment (HRA) process for major energy infrastructure projects in coastal marine environments e.g. power generation (offshore wind, marine renewables, gas, nuclear and biomass), liquid natural gas (LNG), gas storage, oil refineries and offshore oil and gas. She also has experience of EIA and HRA for ports and harbours, industrial plants, and aggregates and potash extraction projects.
- A.1.1.2.1.2. Nicola provides support to clients in gaining all marine and environmental consents for developments and subsequently ensuring compliance with marine and environmental consent conditions. Nicola has a wide-ranging understanding of UK and EU environmental policy and legislation, which she uses in the provision of strategic environmental advice to clients, and engages on their behalf with engineers, contractors, regulators and other stakeholders (if/as appropriate) in finding cost effective environmental solutions to meet the needs of major infrastructure projects.
- A.1.1.2.1.3. Nicola has managed / coordinated the input of, and worked closely with, a wide range of EIA topic leads drawn from both internal and external technical resources. Nicola also provides strategic advice and topic lead for other non-technical EIA chapters including transboundary, inter-relationships and cumulative impacts. She is a highly experienced project director and manager, providing robust technical reviews of marine EIA chapters as well as managing Marine Licence and associated application and assessments (e.g. HRA, WFD, MCZ, EPS).
- A.1.1.2.1.4. Key projects include:
- The Crown Estate New Offshore Wind Leasing;
 - Newport Docks EIA and HRA;
 - Pembroke Dock Marine EIA and HRA;
 - Hornsea project 3 Offshore Wind Farm;
 - M4 Corridor around Newport; and
 - Marine Renewable Energy Strategic Framework for Wales

A.1.1.2.2. Ruth De Silva

A.1.1.2.2.1. Ruth acted as Project Manager for the META project and was the lead author for the Introductory chapters.

A.1.1.2.2.2. Ruth is a knowledgeable and highly experienced project manager and environmental practitioner with over 18 years' experience in the environmental field, including supporting major wave and tidal developments in the UK, as well as offshore wind farms. Ruth worked for Scottish Natural Heritage (SNH) for nine years, during which she was part of the marine renewables team dealing with all development proposals, research requirements and strategy for wave and tidal developments throughout Scotland. She supported the consenting and set-up of the European Marine Energy Centre (EMEC) wave and tidal grid-connected and scale deployment test sites. She was also involved in providing advice on the offshore wind and marine renewables Strategic Environmental Assessments, and on Habitats Regulation Assessment (HRA) requirements to both internal and external colleagues, including Marine Scotland Licensing Operations Team (MS LOT), Local Authority Planners, EMEC and developers. Ruth was heavily involved in the development of MS LOT guidance on marine consenting, the Scottish Government deploy and monitor strategy, and was involved in setting up the EMEC Monitoring Advisory Group to lead industry priorities on wave and tidal monitoring and research requirements.

A.1.1.2.2.3. Ruth then moved on to work as an environmental consultant (eight years) where she has led marine mammal teams and been lead advisor and project manager on many marine energy projects around the UK coast including both wave and tidal, as well as offshore wind projects. As an environmental consultant Ruth project managed marine energy consenting, marine survey design, (including EIA and HRA) for over 12 offshore wind, wave and tidal projects, and project managed three onshore infrastructure projects. She has a wealth of experience in obtaining consent/consent management for marine energy projects around the UK and has liaised with all UK statutory stakeholders and consenting bodies for marine energy projects.

A.1.1.2.2.4. Key projects Include:

- European Marine Energy Centre Test sites – provision of statutory advice on EIA, HRA, consenting and all-natural heritage considerations;
- Torr Head Tidal Development – marine mammal survey design and implementation;
- Swansea Bay Tidal Lagoon – marine mammal impact assessment and collision risk modelling;
- Lashy Sound Tidal Development - provision of statutory advice on EIA, HRA, consenting and all-natural heritage considerations;
- JNCC Acoustic Deterrent Device guidance;
- Hornsea 3 offshore wind farms – marine mammal impact assessment;
- Inch Cape offshore wind farm – marine mammal impact assessment and project management; and
- Rhiannon offshore wind farm – marine mammal impact assessment, on and offshore HRA, project management.

A.1.1.2.3. Lucie Buckland

A.1.1.2.3.1. Lucie was involved in assisting with project management for the META project, and supporting the delivery of introductory chapters and the Marine Mammal chapter.

A.1.1.2.3.2. Lucie has over seven years' experience in marine consultancy and research, with specialist knowledge of marine mammal post-consent and pre-construction mitigation, monitoring, and compliance. She has a range of experience in delivering technical reports for major energy projects in coastal and marine environments, including wave and tidal; offshore wind; offshore oil and gas; and associated electrical and gas infrastructure. She also has experience of delivering compliance reports to regulatory authorities including the Joint Nature Conservation Committee (JNCC), Bureau of Ocean Energy Management (BOEM) / Bureau of Safety and Environment Enforcement (BSEE) and the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). She has been involved in Environmental Impact Assessment (EIA) in support of marine licence and Development Consent Order (DCO) application and the design and agreement of appropriate monitoring and survey methods for baseline characterisation of marine receptors.

A.1.1.2.3.3. Lucie has a range of project management experience however she specialises in technical aspects of the EIA process, primarily marine mammal, ornithological and benthic assessments. She has coordinated a number of marine mammal projects with a focus on research and population assessment, working across Europe, Australia and Africa.

A.1.1.2.3.4. In addition, Lucie has experience of consent compliance and design and implementation of mitigation and monitoring strategies, and in implementing mitigation measures under a range of policies globally; as such Lucie has an in-depth understanding of British and overseas environmental and conservation legislation.

A.1.1.2.3.5. Key Projects include:

- Scrabster Harbour Port Redevelopment (EIA) – marine mammal impact assessment and project management;
- Various offshore wind farms – marine mammal monitoring during piling operations;
- U.S Wind – noise modelling and monitoring of marine mammals and marine mammal mitigation plan production, during offshore wind site trials;
- Seismic Surveys- passive acoustic monitoring of marine mammals; and
- Installation of jacket foundation piles - acoustic and visual monitoring of marine mammals.

A.1.1.2.4. Dr Naomi Shannon

A.1.1.2.4.1. Naomi was the lead author of the Coastal Processes chapter (chapter 5).

A.1.1.2.4.2. Naomi has experience in computational modelling of a wide range of hydraulic processes in the coastal, river and estuarine environment. Naomi also has knowledge of in the field monitoring and data collection required to develop calibrated tidal models which may be applied to a varied range of applications including wave and tidal power studies and storm surge modelling. She has carried out a wave resource study to assess the wave power potential in the Argyll & Bute region of Scotland, as well as site specific detailed modelling including extreme weather events for Siadar on the West Coast of Lewis. She also has experience working for offshore wind farms, she carried out worst-case bathymetry and wave modelling to determine the wave loading for foundation design for the Robin Rigg wind farm. She has also presented evidence as an Expert Witness at a number of hearings.

A.1.1.2.4.3. Key projects include:

- Argyll & Bute Wave & Tidal Resource Study -Wave resource study;
- Robin Rigg offshore wind farm – Wave modelling and reporting;
- Siadar Wave Resource Study – Wave resource study; and
- Pork of Cork, Ringaskiddy Development – Coastal processes impact assessment.

A.1.1.2.5. Simon Stephenson

A.1.1.2.5.1. Simon was the lead author for the Underwater Noise chapter (chapter 6).

A.1.1.2.5.2. Simon is a leader in the field of underwater acoustics and is highly experienced in assessing the impacts of underwater noise from projects on marine mammals, fish and other aquatic species. Noise sources that he has modelled, assessed and advised on include impact and vibratory piling, seismic surveys, sub-bottom profilers, Multi-beam Echo-sounder (MBES), sonar, wellhead decommissioning (e.g. punch guns), drilling, vessels and blasting. Simon is also experienced in engineering aspects of underwater acoustics, including provision of technical development design advice for sound mitigation (e.g. pile sleeves, thrusters, turbines) and detailed acoustic modelling. His previous experience as a Marine Mammal Observer and knowledge of engineering noise mitigation methods including Passive Acoustic Monitoring (PAM) and Acoustic Deterrent Devices (ADD)) alongside expert noise source propagation modelling and assessment skills means that he can see the wider picture and provide world class advice on even the most complex projects.

A.1.1.2.5.3. Simon undertook a research project for the Department of Energy and Climate Change (DECC) as part of the Offshore Renewables Joint Industry Project to review and make recommendations on marine mammal mitigation protocols for offshore renewables. He carried on as acoustic lead to Phase 2 of the ORJIP which included field trials in Iceland. Simon was also one of the authors of the JNCC guidance on ADDs and he has also undertaken a research and gap analysis project for Total to make recommendations for future research projects to be undertaken as part of the Sound and Marine Life joint industry project.

A.1.1.2.5.4. Key projects include:

- DECC- offshore renewables joint industry project – Under water noise lead;
- DP Marine Energy Ireland Limited – Under water noise impact assessment;
- Tidal Ventures Limited – Underwater noise impact assessment;
- Minesto Deep Green Project – Under water noise impact assessment; and
- Brims Tidal Array – Under water noise impact assessment.

A.1.1.2.6. Anna Prior

A.1.1.2.6.1. Anna was the lead author for the Benthic Subtidal and Intertidal Ecology chapter (chapter 7).

A.1.1.2.6.2. Anna is a Senior Marine Consultant and Chartered Marine Scientist with over 10 years of experience. She specialises in marine ecology technical aspects of the Environmental Impact Assessment (EIA) process, primarily in benthic ecology and marine mammal assessments (with a key focus on effects of underwater noise), but also fish and shellfish ecology.

A.1.1.2.6.3. Anna has gained experience in working on projects for a range of clients, including in the offshore wind (e.g. Atlantic Array, Hornsea One, Two and Three Offshore Windfarms (OWF)), marine renewables, government bodies (e.g. M4 Corridor around Newport (M4 CaN) and Newport Docks port relocation proposals) and infrastructure industries (e.g. South Hook LNG terminal and South Hook CHP plant). Anna also has experience of providing project post-consent compliance support to clients, including design of pre- and post-construction monitoring programmes and compilation of monitoring reports for submission to regulatory authorities.

A.1.1.2.6.4. Anna has provided specialist marine ecology support for the Atlantic Array and Triton Knoll offshore wind farms as well as the Hornsea Projects One, Two and Three offshore windfarms.

A.1.1.2.6.5. Key projects include:

- Hornsea projects 1-3 offshore wind farms Benthic Intertidal and Subtidal Ecology impact assessment technical lead;
- Newport Docks Port Relocation Marine ecology impact assessment technical lead;
- M4 Corridor around Newport; and
- Atlantic Array Offshore Wind Farm Benthic Intertidal and Subtidal Ecology data analysis and impact assessments.

A.1.1.2.7. Dr Adam Payne

- A.1.1.2.7.1. Adam was the joint author for the Fish and Shellfish chapter (chapter 8).
- A.1.1.2.7.2. Adam is a highly trained EIA practitioner with over 16 years of experience working in marine and freshwater environments, with particular focus on fish ecology and commercial fisheries. During his career Adam has built up a wide range of experience in undertaking environmental studies and impact assessments for cables, ports and harbours, offshore wind, wave and tidal renewable energy, oil and gas, power station, marine aggregates and fisheries industries. Adam has extensive experience in undertaking and project managing formal EIA and Environmental, Social and Health Impact Assessments (ESHIA) for a range of clients and development types as well as undertaking technical fish ecology and fisheries studies. Adam has a proven track record in the specification and design of fisheries surveys and monitoring programmes.
- A.1.1.2.7.3. He has completed a feasibility and site selection study for a tidal developer investigating potential sites off the north coast of Wales, particularly around the Island of Anglesey. The project examined potential sites based on environmental and socio-economic constraints including fish, mammals, commercial fisheries, ornithology and other sea users. He has gained further experience of tidal projects as the project manager of the EIA and HRA for the MeyGen tidal array in the Pentland Firth, including management of the application, stakeholder engagement and liaison with key stakeholders. Additional support included developing and assessing tenders for technical studies. He also undertook the fish ecology assessment chapter including development of a fish collision risk study and technical report.
- A.1.1.2.7.4. Adam's background in fish ecology and fisheries results from his PhD. and from spending his early career as a fisheries consultant providing management and licensing advice to clients throughout the world, including several governments. This experience includes assessment and management of fish resources in marine and freshwater environments around the world. Adam's experience of commercial fisheries assessments includes wave and tidal development impact assessments (MeyGen, Costa Head) and site selection studies and offshore wind impact assessments (Hornsea Three, Humber Gateway) and Operations and Maintenance (O&M) support (Vattenfall, Ørsted) for a number of offshore wind projects around the UK. Adam has also undertaken a number of site selection and constraints mapping exercises including for a tidal develop off the north coast of Wales. In addition, Adam has undertaken fisheries impact assessments for oil and gas developments (Rosebank, MacCulloch) throughout the UK and overseas (Lake Albert, Mauritania etc.), underwater tree harvesting, Marine Aggregates Regional Environmental Assessments (MAREA) and due diligence assessments of sustainability for an international investment fund.
- A.1.1.2.7.5. Key projects include:
- MeyGen Tidal Energy Project – fish and shellfish and commercial fisheries impact assessment;
 - Brough Head and Costa Head Wave Farms – fish and shellfish and commercial fisheries impact assessment;
 - Hornsea three offshore wind farm – commercial fisheries impact assessment; and
 - Site selection & feasibility Study for a confidential Tidal project in North Wales.

A.1.1.2.8. Adam Crowther

- A.1.1.2.8.1. Adam was the joint author the Fish and Shellfish (chapter 8) and supported the delivery of the Commercial Fisheries (chapter 9) chapters.
- A.1.1.2.8.2. Adam is a Marine Consultant with terrestrial, freshwater and marine survey experience. Adam is primarily involved within marine renewables sector; authoring and supporting EIA in support of DCO and marine licence applications.
- A.1.1.2.8.3. Adam has authored an environmental appraisal for a marine licence variation for Kemsley Power station and has supported technical authors for the Hornsea Three Offshore Wind Farm by analysing site-specific survey data and creating technical reports in response to Relevant Representations. His work on Pembroke Dock Infrastructure included authoring a marine ecology baseline technical report to support the marine ecology EIA chapter with physico-chemical analysis of the site sediments.
- A.1.1.2.8.4. Key projects include:
- Kemsley Power station – Environmental appraisal in support of a Band 2 marine licence variation;
 - Scrabster Harbour Pier Redevelopment – Fish & shell fish and benthic ecology impact assessment.
 - Pembroke Dock Infrastructure – Marine ecology technical report for the impact assessment; and
 - Hornsea three offshore wind farm – Marine ecology support;

A.1.1.2.9. Dr Tessa McGarry

- A.1.1.2.9.1. Tessa was the lead author for the Marine Mammal chapter (chapter 9) and the Commercial Fisheries chapter (chapter 11).
- A.1.1.2.9.2. Tessa has developed considerable experience in assisting clients with consenting of offshore renewables projects. Working closely with her clients' consent and engineering teams, Tessa's experience extends to all aspects of offshore renewables development from the scoping phase through to environmental assessment and finally to post-consent advice and support. Tessa's expertise covers a broad suite of marine ecological features and she has experience of navigating the difficulties that can arise from offshore development in ecological sensitive areas where internationally or nationally protected species and habitats occur.
- A.1.1.2.9.3. Tessa has been contracted as the lead marine mammal specialist on a number of marine renewables projects in the UK, Ireland and overseas. Tessa's range of technical expertise covers marine mammal impact assessments, data analyses and technical reporting, input to HRA and EPS assessments and license applications, consenting strategy reports (e.g. piling strategies, vessel management plans), development of mitigation strategies, consent compliance reporting and expert witness support.

A.1.1.2.9.4. Tessa has a track record in providing marine ecological support to many large offshore wind farm and marine tidal projects. Specific experience with tidal projects includes Montrose tidal array, Marine Renewable Energy Strategy for Wales, and the associated port expansion in the Milford Haven. Recently, Tessa has also been involved in research for the Carbon Trust looking at the application of ADDs as a key mitigation tool for reducing injury to marine mammals from construction noise at offshore developments.

A.1.1.2.9.5. Key projects include:

- Beatrice offshore wind farm – marine mammal impact assessment and piling mitigation protocol;
- Montrose Tidal Array – marine mammal impact assessment;
- ORJIP study on acoustic deterrent devices;
- Hornsea projects 1, 2 and 3 - marine mammal impact assessment; and
- Marine Renewable Energy Strategic Framework – Review and reporting of the policy context for offshore marine renewables (wave and tidal).

A.1.1.2.10. Mike Shewring

A.1.1.2.10.1. Mike was the lead author for the Marine Ornithology chapter (chapter 10).

A.1.1.2.10.2. Mike is an ecological and ornithological consultant with significant experience in ornithological field survey, data analysis and impact assessment. This experience includes providing support to renewable energy developments in terrestrial, marine and coastal environments from a range of established and emerging generation technologies (e.g. Tidal Lagoon Swansea Bay, Codling and Rhiannon Offshore Windfarm, Morlais Demonstration Zone etc). This work has included designing and undertaking field survey work as well as co-ordinating/managing survey work and sub-consultants at terrestrial, marine and coastal renewable energy projects.

A.1.1.2.10.3. His recent project work has included a wide range of ecological project management, data analysis, reporting and assessment. This has also included the design, completion, co-ordination and management of ornithological surveys for the Swansea Bay Tidal Lagoon Project. As well as support with co-ordination and resourcing of boat-based bird and marine mammal surveys. He has also been responsible for client liaison as well as liaison with statutory and non-statutory nature conservation agencies in relation to marine ornithology. He has also co-ordinated and contributed to a number of ecological assessments for inclusion within both EclA and EIA using both Design Manual for Roads and Bridges (DMRB) and Institute of Ecology and Environmental Management (IEEM) impact assessment methodologies. Mike has also input to both the preparation of baseline data reports to inform HRA and the relevant data analysis, interpretation and presentation.

A.1.1.2.10.4. Key projects include:

- Tidal Lagoon Swansea Bay – PEIR ornithology chapter author and ornithology impact assessment;
- Codling and Rhiannon Offshore wind farms – HRA screening chapter author;

- Swansea Bay and Colwyn Bay Tidal Energy projects – Management of ornithology surveys; and
- Morlais demonstration zone – Co-ordination and resourcing of boat-based ornithology and marine mammal surveys.

A.1.1.2.11. Alexandra Bowers

A.1.1.2.11.1. Alexandra was the lead author for the Shipping and Navigation (chapter 12) and Other Users (chapter 16) chapters.

A.1.1.2.11.2. Alexandra has over 12 years' experience within the renewables industry. She has worked on a range of marine renewable energy projects across the development and post-consent phases, and has scoped, prepared and managed a number of EIA and non-EIA environmental assessments.

A.1.1.2.11.3. Over recent years Alexandra has managed or overseen the preparation of around 20 Marine Licence applications and supporting environmental assessments, including applications for construction and maintenance activities, dredging and cable repair/remediation works under English, Welsh and Scottish consenting regimes. This has included Marine Licence applications under the Marine (Scotland) Act 2010 for unexploded ordnance (UXO) removal and for an alternative cable installation method for the Beatrice project, and more recently scoping a similar application for an alternative cable installation method for the Seagreen Phase 1 project.

A.1.1.2.11.4. Alexandra works closely with client consents and engineering teams and has acted as an interface with regulators and stakeholders for a number of these projects. She also has significant post-consent experience, including in the preparation of consents management plans to discharge consent conditions, the management of post-construction monitoring surveys and reporting, and the provision of pragmatic environment and consents advice and support to offshore wind farm operators.

A.1.1.2.11.5. Key projects include:

- Alternative landfall cable installation methodology – Development of consenting approach to appraise requirement for EIA;
- Beatrice Offshore wind farm – Production of pre-consent documents.
- Hornsea three offshore wind farm – Human environment impact assessments; and
- Burbo Bank offshore wind farm – Management of marine licence applications.

A.1.1.2.12. William Heaps

A.1.1.2.12.1. William was the lead author of the Navigational Risk Assessment (NRA) (chapter 12: Shipping and Navigation, Appendix 12.1).

A.1.1.2.12.2. William is a Principal Consultant and Chartered Marine Scientist, with excellent marine and hydrographic experience. William spent 20 years at Associated British Ports (ABP) in various roles, initially as Port Hydrographer (Southampton), and latterly as a (Group) Marine Advisor. His experience included: developing the group marine safety management system; preparing monthly reports for the Harbour Authority Board; undertaking internal audits to ensure implementation of group marine policy, and compliance with requirements of the Port Marine Safety Code; supporting external audits (including MCA Health Checks); assisting with incident investigations; liaising with the Maritime and Coastguard Agency (MCA) and Marine Accident Investigation Branch (MAIB) and fulfilling functions of Designated Person (DP) for all 22 Associated British Ports (ABP) Ports and Harbours. He was also responsible for overseeing marine risk assessment and incident reporting software deployment and the Hydrographic Survey strategy and quality within all ABP group ports. In addition, he was DP for Newport Harbour Commission (South Wales).

A.1.1.2.12.3. William has particular experience in the field of port and harbour conservancy, including hydrography, dredging (capital and maintenance) and all aspects of marine licensing including close liaison with the Marine Management Organisation (MMO) and Marine Scotland.

A.1.1.2.12.4. Key Projects include:

- Blyth offshore wind farm decommissioning NRA;
- Aberdeen Harbour Board Navigation Risk Review;
- Port Marine Emergency Plan; and
- Harwich Haven Authority PMSC Audit.

A.1.1.2.13. Dr Nick Cooke

A.1.1.2.13.1. Nick provided support for the Marine Archaeology chapter (chapter 13).

A.1.1.2.13.2. Nick has more than 20 years' professional experience within the historic environment sector in the UK. He is a director for RPS, within the largest team of historic environment consultants in the UK. He has considerable experience in the preparation of input into environmental statements for major transport and infrastructure schemes.

A.1.1.2.13.3. Nick has provided heritage advice on numerous large infrastructure projects including: large scale housing schemes, employment schemes, road and rail projects, gas and water pipelines, wind and solar farms, as well as on nuclear power schemes. In addition to his work on planning applications, Nick has also undertaken more bespoke pieces of work – recent work includes contributions to the Historic Environment Research Delivery Strategy (HERDS) and strategy papers on the excavation of major burial grounds, both for HS2 Ltd. He has also acted as advisor on road schemes to both Highways England and Transport Scotland, as well as leading on Cultural Heritage for Transport Northern Ireland on the A4 Enniskillen bypass.

A.1.1.2.13.4. Key projects include;

- High Speed 2
- Rhyd y groes wind farm
- A1 Leeming to Barton
- Wylfa Newydd Nuclear Power Plant
- Thurrock Flexible Generation Plant

A.1.1.2.14. Susana Parker

A.1.1.2.14.1. Susana was the lead author for the Marine Archaeology chapter (chapter 13).

A.1.1.2.14.2. Susana has more than 15 years' experience in writing archaeological and historic environment desk-based assessments, and Environmental Statements, as well as undertaking setting assessments of impact from development on listed buildings, scheduled monuments and historic battlefields.

A.1.1.2.14.3. Susana has worked on a wide range of projects from pre-planning (feasibility/ scoping stage), through to discharge of planning conditions. This long-term involvement in projects informs her sense of perspective and focus on the right level of detail at the right stage of a project, both pre-planning and during discharge of conditions.

A.1.1.2.14.4. Key projects include:

- Deep water jetty application on Canvey Island – Archaeology impact assessment;
- Viking Wind Farm – Archaeological consultant managing discharge of planning conditions;
- Bury Port assessment – Archaeological impact assessment; and
- Discharging planning conditions at New Cut – Discharge of planning conditions, Swansea.

A.1.1.2.15. Helen Donnelly

A.1.1.2.15.1. Helen was the lead author of the seascape chapter (chapter 14).

A.1.1.2.15.2. Helen has over twenty years' professional experience working in both the public and private sector in the UK and Ireland providing consultancy services in town planning, urban design and master-planning, architecture, landscape architecture and ecology for a range of developers, house builders, local authorities, the Ministry of Defence (MOD), private and public institutions, housing associations and private clients.

A.1.1.2.15.3. Helen provides project management, planning, urban/landscape design and master-planning consultancy services through all stages of the development process. This includes initial planning and site development through to development briefs, design and access statements, master-planning, EIA, landscape and visual impact assessment, design codes, public consultation and co-ordination of outline planning applications through to reserved matters applications. She also has a wide range of experience in master-planning schemes for a range of uses including residential, commercial, retail, leisure and mixed-use sites, and has successfully achieved planning consent for a number of large-scale buildings in sensitive locations for the MOD and Jaguar Land Rover (JLR).

A.1.1.2.15.4. Key projects include:

- Urban Design Extension – Landscape and visual impact assessment;
- Pembroke Dock Infrastructure – Landscape and visual assessment; and
- Vale Business Park East- Landscape and visual assessment

A.1.1.2.16. Stuart Hardisty

A.1.1.2.16.1. Stuart was the lead author of the Socio-economic and Tourism chapter (chapter 15).

A.1.1.2.16.2. Stuart is a Director of Hardisty Jones Associates with 18 years' experience of all aspects of economic development consulting. Stuart's expertise includes economic analysis in relation to property development and planning policy, economic strategy preparation, economic impact analysis, project appraisal and evaluation. Stuart is an experienced project manager and leader with strengths in stakeholder consultation, understanding the implications of economic analysis, forecasting and modelling, survey development/management and data collection and analysis. Stuart has worked extensively in Wales and across the south of the UK as well as various projects in other parts of the UK, Europe and Worldwide.

A.1.1.2.16.3. Stuart works widely for both public and private sector clients. Stuart's expertise includes economic analysis in relation to property development and planning policy, economic strategy preparation, economic impact analysis, project appraisal and evaluation. Stuart has led socio-economic impact assessments and prepared Environmental Statement chapters for a wide variety of schemes including residential, employment, retail, education, health, leisure and energy uses.

A.1.1.2.16.4. Key Projects include:

- Economic impact assessment to support proposed development of the Pembroke Dock Marine initiative;
- Economic impact assessment for mixed development in Cheltenham;
- Outline masterplan for Ashchurch; and
- Socio-economic impact assessment of masterplan proposals for development of major strategic site in south Wales.

A.1.1.2.17. Joshua Harding-Jones

A.1.1.2.17.1. Joshua provided support for the Socio-economic and Tourism chapter (chapter 15).

A.1.1.2.17.2. Joshua has three years' experience of economic development consulting. Josh has undertaken a number of socio-economic impact assessments and Environmental Assessment chapters for mixed use, residential, employment and energy schemes. He has an understanding of land, property and spatial development elements of economic development. He has worked on projects on behalf of private developers, Local Enterprise Partnerships, local authorities, public-public and public-private partnerships.

A.1.1.2.17.3. Key projects include:

- Economic impact assessment to support proposed development of the Pembroke Dock Marine initiative;
- Economic impact assessment for mixed development in Cheltenham; and
- Socio economic impact assessment of masterplan proposals for development of major strategic site in south Wales.