

Institute of Environmental Management and Assessment (IEMA) Impact Assessment Guidelines:

# Implementing the Mitigation Hierarchy from Concept to Construction

August 2024



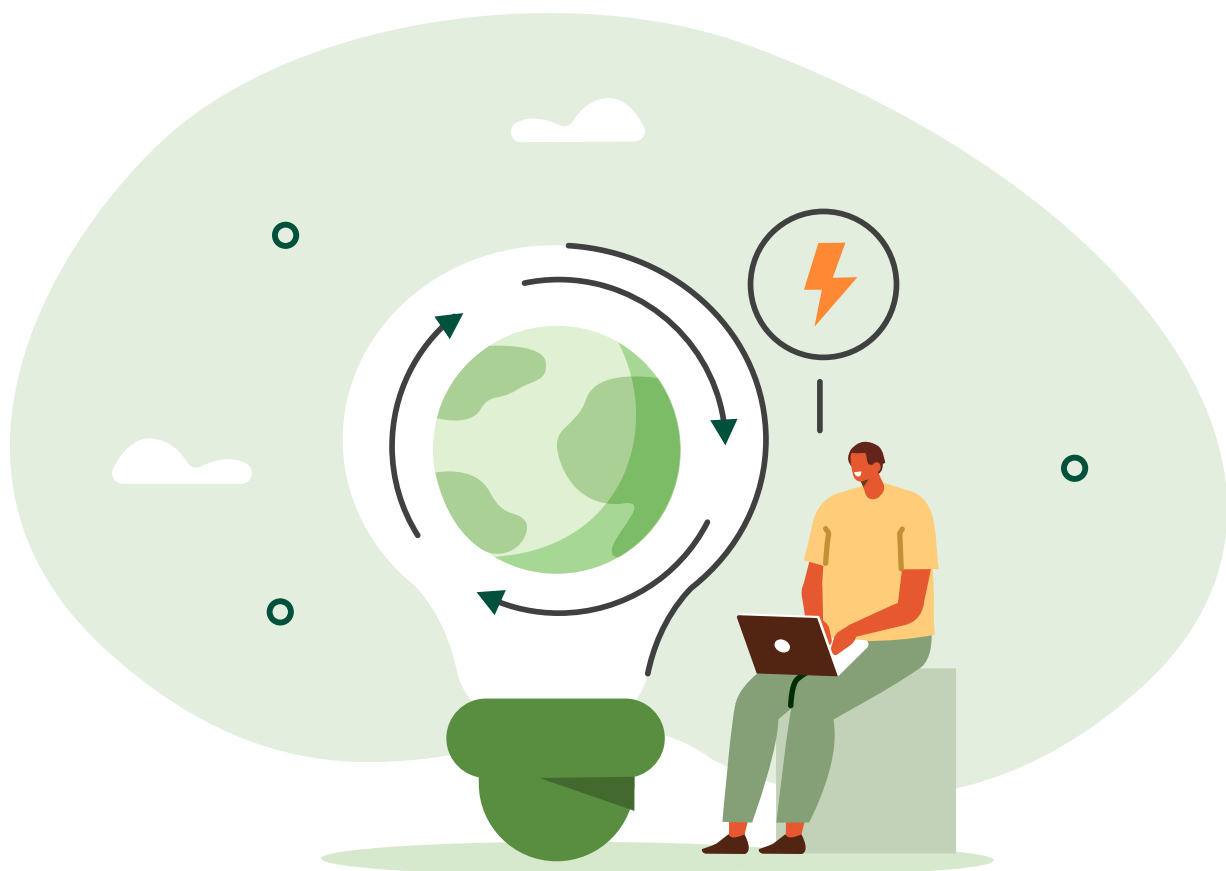
**IEMA**

Transforming the world  
to sustainability

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# Executive summary

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Experienced impact assessment practitioners know the value of integrating environmental and social considerations into the design of projects and policies to seek to identify opportunities for positive outcomes, enhancements and beneficial effects, as well as identifying and seeking to avoid or mitigate negative and harmful effects. This publication provides much-needed guidance on how to properly implement the mitigation hierarchy from the earliest stages of a project, and how to maintain and communicate the mitigation measures across the pre-consent assessment phase into the crucial construction phase, and onwards into the operational phase environmental management system (EMS) and eventual decommissioning.

Too often, our members have reported inadequate implementation of construction phase mitigations, and insufficient monitoring and enforcement of environmental conditions agreed at the assessment and consenting phase. Furthermore, our construction phase environmental managers have reported inadequate information being transferred to the construction phase teams, and often inflexible or impractical conditions or mitigation measures leading to costly and lengthy delays to the discharge of planning conditions, giving environmental management a negative reputation for introducing costly 'red tape'.

These guidelines have been produced by IEMA members who are leading practitioners from across sectors and industries, providing insights and advice on how best to identify enhancements and avoid impacts through early intervention in the design process; and for those impacts that cannot be avoided, how to identify appropriate mitigation, secure the planning conditions and transfer that information between project phases. In particular, the guidance provides new advice on the essential stage of contractor procurement, to provide accurate and clear environmental mitigation via well-drafted Construction Environmental Management Plans (CEMPs), to ensure that important mitigations are implemented and monitored correctly, without leading to unnecessary delays in planning condition discharge and project implementation.

Finally, these guidelines end with recommendations on monitoring implementation of mitigation and advocate for the use of independent Environmental Clerks of Works. These guidelines update and build on our excellent publications, *Shaping Quality Development* (2015) and *Delivering Quality Development* (2016).

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# Acknowledgements

These guidelines replace our earlier guides, *Shaping Quality Development* and *Delivering Quality Development*, the original authorship of which was undertaken by a working group comprising representatives from local planning authorities, universities, consultants and developers. The original working group members are listed below<sup>1</sup>.

## Shaping Quality Development (2015)

The project was led by LDA Design, with the guide co-authored and edited by Alister Kratt, Mary Fisher and Maeve McElvaney (LDA Design), alongside Jo Murphy (National Environmental Assessment Service, Environment Agency) and Josh Fothergill (IEMA). Its development was assisted with input from Philip Rowell (Adams Hendry), Iain Bell and Nigel Pilkington (AECOM), Adrian Keal (Nexus Planning - Broadway Malyan), Robert Pile (LDA Design), Rufus Howard (Royal HaskoningDHV), Amy Robinson (RPS Group), Peter Traves (Savills), Matthew Sheppard (Turley), Tom Smeeton (Temple Group) and Andy Ricketts (WSP Group - Parsons Brinckerhoff).

## Delivering Quality Development (2016)

The guide was co-authored and edited by Andrew Ricketts and Kyle Welburn (WSP - Parsons Brinckerhoff), Josh Fothergill (IEMA) and Martin Ballard (Willmott Dixon). Special thanks to Martin Broderick (Oxford Brookes University) for initial draft at WSP 2012-2013 and ongoing peer review and contact throughout the process. Its development was assisted with input from Adam Boyden (Nicholas Pearson Associates), Simon Chamberlayne (Pegasus Group), Peter Cole (Temple Group), Bridget Durning (Oxford Brookes University), Karl Fuller (Environment Agency), Dave Sellwood (Jacobs, formerly SKM) and Kate Wigley (LUC).

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<sup>1</sup> Please note, some of the employers listed here will have changed in the intervening years.

# Glossary of key terms

Terminology	Definition
<b>Adaptive/iterative management</b>	A structured and learning-based iterative process for robust decision-making when there is a level of uncertainty. This approach aims to reduce uncertainty over time through system monitoring. It enables flexibility in the achievement of environmental outcomes, through adaptation of assumptions and interventions, and informs future management, through gathering of knowledge and information.
<b>Additional mitigation</b>	Mitigation measures that are identified as being required, to avoid, prevent, reduce or, if possible, offset significant environmental effects that have been identified through the technical assessments within the Environmental Statement/EIA Report.
<b>Biodiversity net gain (BNG)</b>	<p>Biodiversity net gain is development that leaves biodiversity in a better state than before. It is also an approach where developers work with local governments, wildlife groups, landowners and other stakeholders in order to support their priorities for nature conservation.</p> <p>Note: the approach is becoming established in England. Other UK nations are considering similar approaches.</p>
<b>Code of Construction Practice (CoCP)</b>	The document that provides guidance on the approach to construction, including environmental impacts. A high-level document, it sets out a series of measures and standards of work to be applied by a developer and its contractors throughout the construction period.
<b>Community Infrastructure Levy</b>	A charge which can be levied by local authorities on new development in their area. It is a tool used by local authorities to help deliver infrastructure needed to support development.
<b>Competent authority</b>	A person or body that has statutory decision-making powers relating to the grant or refusal of consent under any of several consenting regimes. Typically a competent authority grants some form of development consent, planning permission, licence or permit.
<b>Competent expert</b>	A person who, by a combination of training and experience, can demonstrate a level of expertise appropriate to perform a specific specialist role. Note the use of competent experts is required under the Environmental Impact Assessment (EIA) Regulations.
<b>Constraints guidance document</b>	A document which gives contractors a short introduction to the key constraints to the project, site or other that would affect their tender return, including the schedule of mitigation. A constraints guidance document will typically contain some similar content to the outline CEMP (oCEMP; see 'Outline CEMP').
<b>Construction Environmental Management Plan (CEMP)</b>	A plan describing a series of measures which a developer has committed to during the construction phase of a development and that all contractors and associated parties should comply with. The plan should provide details of the legislation which construction activities will comply with, assign clear responsibilities and draw together the mitigation measures identified during the Environmental Impact Assessment (EIA) process to avoid or reduce the environmental effects of construction activities.

Terminology	Definition
<b>Consultation</b>	<p>A term used in two broad contexts:</p> <ol style="list-style-type: none"> <li>1 Targeted consultation of specific consultees, as defined below</li> <li>2 Broader consultation with a community and/or with the wider general public.</li> </ol> <p>In some contexts, either or both type of consultation may be a statutory requirement.</p>
<b>Consultee/statutory consultee</b>	<p>Any individual or group specifically consulted to obtain their advice or opinion relating to any aspect of a project. A consultee may be statutory or other official bodies, organisations with relevant interests, or individuals known to be directly affected by a development, rather than members of the wider general public.</p> <p>A statutory consultee is an organisation that must, by law, be consulted in advance of an application. By nature of their specific technical and/or local knowledge, a statutory consultee can give valuable feedback on a project and its potential impacts. A statutory consultee may make a formal objection where they believe the project will result in significant harm or is contrary to the consultee's policies.</p> <p>See also 'Stakeholder'.</p>
<b>Design</b>	<p>All of the decisions that shape a development throughout its construction/ commencement, operation and, where relevant, decommissioning/redevelopment phases, including both physical and operational aspects.</p>
<b>Design optimisation</b>	<p>The process of coming to a final proposal having appropriately considered all of the risks, constraints and requirements within the specific circumstances of a given project.</p>
<b>Embedded mitigation</b>	<p>Mitigation measures that have been incorporated into the project description and form an inherent part of the project design.</p> <p>See also 'Mitigation'.</p>
<b>Environment</b>	<p>In general terms 'Environment' can be defined as the complex of physical, chemical and biotic factors that act upon an organism or an ecological community and ultimately determine its form and survival. For EIA, 'Environment' encompasses both biophysical and social or community issues, specifically relating to the issues listed within Article 3 of the Environmental Impact Assessment (EIA) Directive (2011/92/EU, as amended by 2014/52/EU).</p>
<b>Environmental Appraisal Report (EAR) or Environmental Report (ER)</b>	<p>An environmental report which is non-statutory and made voluntarily or as part of best practice in project planning. The process for producing an EAR or ER is similar to the production of an environmental statement (see 'Environmental statement'), but it is often simpler and concentrates on the early stages of a project.</p> <p>See also 'Environmental assessment'.</p>

Terminology	Definition
<b>Environmental assessment</b>	<p>A general term for a voluntary or non-statutory form of impact assessment with varying scopes depending on the nature of the assessment and its purpose.</p> <p>See also 'Environmental Appraisal Report (EAR) or Environmental Report (ER)'.</p>
<b>Environmental auditor</b>	<p>An environmental auditor assesses and evaluates an organisation's overall environmental performance and management systems. This is as opposed to the Environmental Clerk of Works (EnvCoW), who oversees a specific project. An environmental auditor provides a systematic review of environmental practices, identifies areas for improvement and verifies compliance over a broad scope and time frame.</p>
<b>Environmental Impact Assessment (EIA)</b>	<p>Environmental Impact Assessment (EIA) is a decision support tool used by environment and sustainability professionals to ensure that relevant environmental information is available to a decision-maker (usually a local authority or government department), before they decide whether to grant consent for a future development: for example, a major road, large housing estate, industrial facility, power station, etc.</p> <p>Most countries around the world have EIA requirements enshrined in legislation, generally focused on those projects likely to generate significant environmental effects.</p>
<b>Environmental Management Plan (EMP)</b>	<p>A collective term to refer to any plan that seeks to systematically implement measures to manage the environmental impact of a project.</p>
<b>Environmental Management System (EMS)</b>	<p>An Environmental Management System (EMS) is used to systematically manage environmental aspects and impacts, fulfil compliance obligations such as legal requirements and the requirements of interested parties, to address risks and opportunities, and to continually improve environmental performance. It is based on the Plan-Do-Check-Act (PDCA) Cycle.</p>
<b>Environmental Statement or EIA Report</b>	<p>The formal (statutory) report setting out the results of an Environmental Impact Assessment (EIA). In some UK EIA Regulations, most notably in Scotland, 'EIA Report' is the formal title and is equivalent to 'Environmental Statement', which is the term used most frequently in England, Wales and Northern Ireland.</p>
<b>Impact assessment</b>	<p>A broad descriptor that can be applied to many types of environmental and social assessments, such as environmental appraisals, environmental assessments, Sustainability Appraisal (SA), Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA).</p>
<b>Levelling Up and Regeneration Act 2023 (LURA)</b>	<p>The 2023 legislation which introduced comprehensive planning reforms among a range of environment and other democracy and regeneration provisions. Some elements of the LURA include amendments to the Town and Country Planning Act 1990 and new enforcement provisions. Part 6 of the LURA secures powers to implement a new system of statutory environmental assessment known as Environmental Outcomes Reports (EORs) that are intended to replace both Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA).</p>



Terminology	Definition
<p><b>Mitigation</b></p>	<p>Mitigation means any action or process designed to avoid, reduce or remedy potentially significant adverse effects of a development. A hierarchy exists of different types of mitigation in order of preference and effectiveness (see 'Mitigation hierarchy'). Mitigation measures can relate to the concept stage, master planning stage, detailed design stage, construction stage or the activities associated with the operation of the completed proposed development.</p> <p>See also 'Embedded mitigation'.</p>
<p><b>Mitigation hierarchy</b></p>	<p>A systematic approach used to minimise adverse effects of a project or scheme on the environment and people. It is a series of steps or principles to guide decision-making and prioritise activity. The hierarchy comprises four stages, with the most desirable first: avoid, prevent, reduce and, finally, offset. The hierarchy indicates that avoidance is the priority and offsetting should only be relied on as a last resort. For definitions of these terms within the hierarchy, see Part 1, Section 2 of these guidelines: 'Mitigation hierarchy concept'.</p>
<p><b>Monitoring</b></p>	<p>The systematic and ongoing collection, analysis and evaluation of data related to the implementation and performance of a project or scheme. Monitoring is conducted to assess whether the project is being carried out in accordance with the conditions, commitments and requirements outlined in the consent or approval documents, as well as any associated mitigation measures and management plans. Monitoring plays a crucial role in ensuring the sustainable and responsible management of approved projects, facilitating transparency, accountability and the achievement of desired outcomes while minimising adverse effects.</p>
<p><b>Outline CEMP (oCEMP)</b></p>	<p>A document included at the pre-consent stage of a planning application which sets out the responsibilities and environmental standards that the planning applicant (and any contractors) will comply with. The oCEMP serves as a framework and baseline from which the final Construction Environmental Management Plan will be developed post-consent.</p>
<p><b>Planning conditions and requirements</b></p>	<p>A set of further actions/commitments attached to a consent granted by a determining authority to enable development proposals to proceed where it would otherwise have been necessary to refuse consent. Typically, 'planning conditions' are used where consent is granted under the Town and Country Planning Act 1990 (and equivalents) and 'requirements' is the term used where consent is granted for a Nationally Significant Infrastructure Project (NSIP) via a Development Consent Order (DCO). Conditions or requirements are essential to secure the delivery of key mitigations identified in the Environmental Impact Assessment (EIA).</p>

Terminology	Definition
<b>Polluter pays principle</b>	An environmental policy principle that holds that the costs of pollution and environmental damage should be borne by the party responsible for causing the pollution or damage. In essence, those who pollute or degrade the environment should bear the costs associated with their actions, rather than shifting the burden onto society or future generations. The polluter may pay directly through fees or charges, or indirectly through regulatory or contractual requirements that ensure the minimisation of environmental damage (which may require additional investment). If the latter, then fines or penalties for breaching these obligations may be appropriate.
<b>Precautionary principle</b>	A fundamental principle in environmental and public health policy emphasising taking preventative action in situations where knowledge of potential outcomes is incomplete. The key elements of the precautionary principle are: anticipatory action; proportionality; uncertainty; and reversibility. The principle is a guide for decision-making in situations where there are significant risks of harm, but uncertainty remains about the exact nature and magnitude of those risks. It prioritises prevention and protection, particularly in cases where irreversible harm to human health of the environment could result from inaction.
<b>Primary mitigation (inherent)</b>	See the description and examples in 'C.2 Classified mitigation (potential effects, mitigation and residual effects)' within Part 1, Section 3.4 of these guidelines, plus the additional detail in Annex A.
<b>Secondary mitigation (foreseeable)</b>	See the description and examples in 'C.2 Classified mitigation (potential effects, mitigation and residual effects)' within Part 1, Section 3.4 of these guidelines, plus the additional detail in Annex A.
<b>Section 106 agreement, Section 75 agreement and Section 76 agreement</b>	<p>A feature of the planning process in England and Wales, a Section 106 agreement or 'planning obligation' under Section 106 of the Town and Country Planning Act 1990 is a legal agreement between a Local Planning Authority (LPA) and a developer. The equivalent in Scotland is a Section 75, and in Northern Ireland a Section 76.</p> <p>The agreement is typically applied where it is not possible to address unacceptable impacts through a planning condition. Section 106 agreements (and equivalents) are separate from planning conditions. The purpose of the agreement is to mitigate the impact of the proposed development on the local area and community. It may include various obligations or contributions that the developer agrees to undertake as part of the planning permission, including, but not limited to: affordable housing provision; infrastructure improvements; environmental mitigation; community facilities; and employment and training opportunities.</p>

Terminology	Definition
<b>Stakeholder</b>	<p>A broad term, encompassing anyone with a 'stake' in a project. Typically, this can include any or all of the following, without limitation:</p> <ul style="list-style-type: none"> <li>• The determining authority responsible for consenting the project</li> <li>• Statutory or other bodies with duties relating to the environment</li> <li>• Other statutory bodies with relevant interests</li> <li>• Statutory undertakers with assets or interests in the vicinity</li> <li>• Any special interest representative groups with relevant interests</li> <li>• Anyone for whose benefit the project is designed</li> <li>• Any business or private individual whose interests are potentially affected by the development, whether positively or negatively</li> <li>• Local communities, residents and affected people.</li> </ul> <p>See also 'Consultee/statutory consultee'.</p>
<b>Strategic Environmental Assessment (SEA)</b>	<p>A statutory impact assessment carried out for plans or programmes under SEA legislation (Environmental Assessment of Plans and Programmes Regulations 2004).</p>
<b>Tertiary mitigation (inexorable)</b>	<p>See the description and examples in 'C.2 Classified mitigation (potential effects, mitigation and residual effects)' within Part 1, Section 3.4 of these guidelines, plus the additional detail in Annex A.</p>



# List of abbreviations

<b>AEnvCoW</b>	Association of Environmental Clerks of Works
<b>BNG</b>	Biodiversity net gain
<b>BREEAM</b>	Building Research Establishment Environmental Assessment Methodology
<b>CA</b>	Competent authority
<b>CEMP</b>	Construction Environmental Management Plan
<b>CDM</b>	Construction (Design and Management) Regulations 2015
<b>CoCP</b>	Code of Construction Practice
<b>DCO</b>	Development Consent Order
<b>DMRB</b>	Design Manual for Roads and Bridges (Highways England)
<b>EA</b>	Environmental assessment
<b>EIA</b>	Environmental Impact Assessment
<b>EnvCoW</b>	Environmental Clerk of Works
<b>EMP</b>	Environmental Management Plan
<b>EMS</b>	Environmental Management System
<b>EOR</b>	Environmental Outcomes Report
<b>ES</b>	Environmental Statement
<b>IA</b>	Impact assessment
<b>KPI</b>	Key performance indicators
<b>LEED</b>	Leadership in Energy and Environmental Design
<b>LPA</b>	Local Planning Authority
<b>LURA</b>	Levelling Up and Regeneration Act 2023
<b>MD-LOT</b>	Marine Directorate Licensing Operations Team
<b>MMO</b>	Marine Management Organisation
<b>NEPA</b>	National Environmental Policy Act (US)
<b>NRW</b>	Natural Resources Wales
<b>NSIP</b>	Nationally Significant Infrastructure Project
<b>oCEMP</b>	Outline Construction Environmental Management Plan
<b>PPP</b>	Polluter pays principle
<b>PRoW</b>	Public Right of Way
<b>REAC</b>	Register of Environmental Actions and Commitments
<b>SA</b>	Sustainability Appraisal
<b>SAC</b>	Special Area of Conservation
<b>SEA</b>	Strategic Environmental Assessment
<b>SoCC</b>	Statement of Community Consultation
<b>SSSI</b>	Site of Special Scientific Interest
<b>TMP</b>	Traffic management plan

# 1. Introduction

## 1.1 The impact assessment process and its aims

The International Association for Impact Assessment (IAIA) and IEMA defines impact assessment as “the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made”.<sup>2</sup>

Impact assessment, in various forms, has been practised for more than 50 years<sup>3</sup> and is now applied in over 100 countries worldwide. In the UK context, the assessment of environmental impacts has been heavily influenced by the European Union (EU) Directives on Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA), and has been practised for around 35 years. The UK was a strong influencer of the European Directives and many of the principles and practices arising from the Directives have been informed by UK policy and practice.

Core principles of impact assessment:

- National policy on the environment and social protections should be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should, as a priority, be rectified at source and that the polluter should pay. Effects on people and the environment should be taken into account at the earliest possible stage in all technical planning and decision-making processes of a project.
- Determining authorities should grant consent for public and private projects which are likely to have significant effects on people and the environment only after an assessment of the likely significant environmental effects of those projects has been carried out. That assessment should be conducted on the basis of the appropriate information supplied by competent experts on behalf of the developer – which should then be reviewed by determining authorities with access to sufficient and appropriate expertise to evaluate that information and take it into account in decision-making – and by the public concerned with the project in question.

- The effects of a project on people and the environment should be assessed in order to take account of concerns to protect human health; to contribute by means of a better environment to the quality of life; to ensure maintenance of the diversity of species; and to maintain the reproductive capacity of the ecosystem as a basic resource for life.

## 1.2 UK requirement for impact assessment

The UK has implemented the EU Directive (and amendments) on the assessment of the effects of certain public and private projects on the environment (the EIA Directive)<sup>4</sup> and the EU Directive on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive).<sup>5</sup>

These EU impact assessment directives have been transposed in the UK over time, starting in 1988, and are now covered by 40 separate regulations, both sector-based (agriculture, forestry, oil and gas, etc) and geography-based (Northern Ireland, Wales, England and Scotland), with more than 300 authorities bearing responsibility for their implementation.<sup>6</sup>

In January 2020, the UK formally left the EU and through that year passed various regulations replacing EU-derived legislation with minor amendments, to enable the functional continuation of laws and regulations following the departure. The current EIA Regulations in England, Wales, Scotland and Northern Ireland are still based on the 2014 version of the EU EIA Directive, which was transposed through various regulations into UK law in 2017 and remains the basis of the current EIA regulations in the UK.

The Levelling Up and Regeneration Act 2023 (LURA) introduced the concept of Environmental Outcomes Reports (EORs), intended to eventually replace EIA and SEA in England. At the time of writing, EORs have not yet replaced EIA and SEA and they may not be fully implemented. This guidance is not affected by potential changes and can be used for EIA, SEA, EOR and other forms of environmental assessment regime.

<sup>2</sup> Principles of Environmental Impact Assessment Best Practice, 1999, IAIA and Institute of Environmental Assessment (IEA became part of IEMA).

<sup>3</sup> National Environmental Policy Act (NEPA) of 1969 in the US. <sup>4</sup> European EIA Directive 85/337/EEC as amended in 1997, 2003, 2009, codified in 2011 in 2011/92/EU and consolidated in 2014 in 2014/52/EU. <sup>5</sup> European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, referred to as the Strategic Environmental Assessment or SEA Directive. <sup>6</sup> Fothergill, J. & Fischer, T.B. (2022). EIA in England. In Hanna, K. (Ed.), *Routledge Handbook of Environmental Impact Assessment* (pp. 318-331). London, Routledge.

At present, there are minor variations in requirements across the different environmental assessment regimes and regulations, but these differences are generally procedural. For example: reference to different statutory bodies, with Natural England in the English regulations being replaced with NatureScot in Scotland and Natural Resource Wales in Wales; and different terminology, with the environmental assessment report being called the Environmental Statement in England, Wales and Northern Ireland, and the EIA Report in Scotland. Depending on the outcome of the EOR reforms in England, this may become even more fragmented in future years, with different procedures and terminology across the different nations in the UK. Likewise, while written primarily for a UK audience, these guidelines will prove useful for any EIA practitioner operating to national requirements in other non-UK countries due to the many similarities internationally in the practice of EIA methodology.

Therefore, regardless of the differences in environmental assessment requirements across different regimes, the fundamental requirements of environmental assessment are clear and consistent internationally. Any project, plan or programme which is likely to have significant effects on people or the environment should be subject to impact assessment. The purpose of the impact assessment is twofold:

- First, to identify the proposal's likely significant effects and for the significant adverse effects, seek to initially avoid or prevent them. Where adverse effects are unavoidable, to develop mitigation measures to reduce and minimise these effects.
- Second, to provide the decision-makers, stakeholders and public with clear reporting on the outputs from this assessment, so that the effects of the proposal are understood prior to the decision being taken on whether to proceed or not.

The process of identifying and seeking to avoid adverse effects is often referred to as the application of the 'mitigation hierarchy' concept. The mitigation hierarchy is a systematic approach used to minimise adverse effects of a project or scheme on the environment and people. It is a series of steps or principles to guide decision-making and prioritise activity. The hierarchy typically comprises four stages, with the most desirable first: avoid, prevent, reduce, offset. The hierarchy indicates that you should be attempting to start with avoidance as the priority, and only rely on offsets and compensation as a last resort (see Part 1, Section 2 of these guidelines: 'Mitigation hierarchy concept').

### 1.3 Need for updated guidance

IEMA published two well-received guides on the importance of using impact assessment to shape and deliver better-quality development. However, it is approaching 10 years since the first of these guides was published. This 2024 publication combines, updates and supersedes the following two (former) IEMA guides:

- IEMA (2015) *IEMA Environmental Impact Assessment Guide to Shaping Quality Development*
- IEMA (2016) *IEMA Environmental Impact Assessment Guide to Delivering Quality Development*.

### 1.4 IEMA Environmental Impact Assessment Guide to Shaping Quality Development (2015)

The 2015 guide sought to establish the principles and framework for maximising the interaction between environmental thinking and project design within the decision-making process. The aim of the guide was to contribute to the delivery of proportionate EIA, by shaping decision-making that leads to higher-quality development proposals. The guide sought to improve EIA practitioners' understanding of how to ensure the EIA process effectively interacts with other pre-application project activities, to generate an improved development proposal and better environmental outcomes that otherwise would not have been achieved. On this basis, the 2015 guide dealt predominantly with the importance of integrating environmental and social consideration into the earliest phases of project development.

This new guidance reiterates the principles and advice set out within the 2015 guide. Specifically, Part 1 of this revised guidance advocates integration with the earliest design, concept and feasibility phases, when opportunities for enhancements and beneficial effects are most easily identified and integrated into proposals. Likewise, the top levels of the mitigation hierarchy, which are focused on the identification and avoidance of impacts at sources, are best identified at the earliest possible stage to allow the proposals to be modified to avoid the effect in its entirety, i.e. through site selection or primary design decisions. If environmental and social assessment is only engaged after key designs, concepts and locations have been identified, both the opportunities for enhancement and the possibility of avoidance of impacts are greatly diminished.

### **1.5 IEMA Environmental Impact Assessment Guide to Delivering Quality Development (2016)**

The 2016 guide set out key principles and direction to ensure that environmental mitigation identified during the pre-application assessment process (including design and EIA) is delivered once consent has been granted. The guide explained that EIA legislation requires that an Environmental Statement describes the measures proposed to mitigate any 'likely significant effects' of a development. These measures often include design elements of the project and environmental mitigation measures that are fundamental in the decision to give consent. Ensuring that such environmental mitigation is implemented is particularly important for those affected by a development project, the developer's corporate reputation and maintaining trust in the integrity of EIA.

The 2016 guide was designed to complement the 2015 guide, with a focus more on the delivery phase and the implementation of mitigation. These new guidelines reiterate the principles and advice set out within the 2016 guide, and Part 2 of these guidelines builds on and expands the earlier work on implementation, with a focus on procurement of contractors, implementation, monitoring, enforcement and the transition from construction to operation phase Environmental Management Systems.

### **1.6 Purpose of these guidelines**

While the concept of the mitigation hierarchy is pertinent to both strategic level assessment (SA, SEA) and project level assessment (EA, EIA, EOR), the focus of these guidelines is primarily on the project level assessment, where the project information is more detailed. Nevertheless, many of the principles set out within these guidelines apply to strategic level assessments, and this publication is recommended to strategic level practitioners. Further guidance from IEMA is forthcoming on strategic impact assessment in 2025.

The focus of this guidance is therefore on the application of the mitigation hierarchy in impact assessment across the project life cycle from concept to construction. It focuses on the critical aspect of how to integrate environmental and social considerations into the design of projects; how to capture and record mitigations throughout the assessment process; how to secure the implementation of any identified mitigations (i.e. through planning conditions, requirement or legal agreements); and how to monitor the implementation (and success or failure) of the mitigation during construction, as well as touching on operational phases of development, decommissioning and restoration or aftercare.<sup>7</sup>

Given the critical centrality of the application of the mitigation hierarchy and its implementation to successful impact assessment, IEMA has published this guidance to provide the latest good practice in this area. The objectives of this new and updated guidance are to:

- Promote the earliest possible consideration of the environmental and social effects of proposals
- Reiterate the effective practice principles and advice set out in the forerunner 2015 and 2016 IEMA guides to EIA in design and delivery, including advocating for the EIA process and the practitioners leading it to help catalyse environmental enhancement opportunities, alongside EIA's regulatory focus on mitigating significant adverse effects
- Provide detailed guidance and advice on the application of the mitigation hierarchy across the project life cycle from concept to construction

<sup>7</sup> Limited advice is given on operation, decommissioning, restoration or aftercare; however, this is not the focus of the guidance, both for managing the scope and length of this guide, but also because other resources are available for practitioners wishing to learn about implementing Environmental Management Systems, operational phase environmental management and decommissioning.

- Promote good practice and encourage consistency in:
  - Capturing, articulating and recording environmental mitigation measures and commitments associated with a project, including the use of outline Construction Environmental Management Plans (oCEMPs) and Codes of Construction Practice (CoCPs)<sup>8</sup>
  - The use of schedules, registers and summaries of mitigation and how they are secured through reasonable and achievable planning conditions, requirements and obligations
  - Transferring knowledge and data on planning conditions, requirements and obligations relating to environmental mitigation measures and/or commitments into the project procurement phase and project handover, specifically over time and across organisations
  - The clear allocation of responsibilities and budget for implementation of mitigation and procurement of suitably qualified contractors
  - The use of monitoring and importance of independent audit in ensuring mitigations, requirements and conditions are implemented on site, including the use of Environmental Clerks of Works (EnvCoWs).

- Independent auditing of environmental management during construction
- Monitoring and enforcement of environmental planning conditions and requirements.

These guidelines should be used by practitioners working on projects in England, Wales, Scotland and Northern Ireland. Furthermore, these guidelines will be useful to many international practitioners, particularly those applying the EIA Directive, such as the Republic of Ireland, as many of the methods are highly relevant to international EIA regimes, and much of the advice provided is applicable.

It is recommended that, as part of applying this guidance, those who do not have a working knowledge of delivering EIAs, impact assessments or non-statutory environmental assessments – or who simply wish to refresh their understanding – undertake preliminary reading on the way in which the process as a whole is undertaken, particularly in relation to the application of impact assessment within the design process and the use of Environmental Management Plans (EMPs), Construction Environmental Management Plans (CEMPs) and Environmental Management Systems (EMS) as a control mechanism.

### 1.7 Intended audience

The intended audience for this guidance is impact assessment practitioners, planning consultants, planning lawyers, project managers, developers/project promoters, pre-construction advisers, Local Planning Authorities (LPAs), contractor procurement managers, contractors, site operatives, estate managers, regulators, statutory advisers, central government and any other stakeholders concerned with:

- Assessment of impacts within the environmental assessment process
- Development of environmental mitigations, planning conditions and requirements
- Design of oCEMPs
- Procurement of contractors for design and/or construction
- Implementation of environmental management during construction

#### Marine and coastal considerations

**As the professional body for everyone working in environment and sustainability, IEMA recognises that infrastructure development takes place on land ('terrestrial') as well as along our coasts and in our seas ('marine'). This IEMA guidance has been developed to support both terrestrial and marine development, noting that in many areas, the broad principles associated with terrestrial processes apply to the marine environment. However, where there are notable differences or nuances associated with marine infrastructure, these are outlined in these blue boxes. The consenting regime for marine developments, for example, is different from onshore developments, and also differs between England, Scotland, Wales and Northern Ireland.**

<sup>8</sup> See Part 1, Section 4 in these guidelines for a definition of CoCP and CEMP.



# Part 1: Considering mitigation – pre-consent

As set out in the introduction, the concept of mitigation is a central component of impact assessment and environmental management theory and practice.

The Environmental Impact Assessment (EIA) Regulations<sup>9</sup> define the requirements for:

“A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.”

Section 2 of these guidelines sets out the concept of the mitigation hierarchy, and the key definitions and types of mitigation and where they may apply.

Section 3 of these guidelines sets out the importance of integrating environmental and social considerations into project design and explains the concept of primary mitigation, sometimes referred to as ‘embedded mitigation’ or ‘mitigation by design’, which is a key method of implementing the upper levels of the mitigation hierarchy. Section 3.5 covers specific use cases of mitigation within EIA, including use of mitigation during EIA screening and scoping.

Section 4 of these guidelines sets out how mitigations identified in the impact assessment can be captured and included through the use of a Code of Construction Practice (CoCP) and through an outline Construction Environmental Management Plan (oCEMP), and provides advice and guidance on their use.



<sup>9</sup> See Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Other EIA Regulations have similar or identical wording which is based on the original EU Directive.

## 2. Mitigation hierarchy concept

The concept of the mitigation hierarchy has been used for many decades and has been applied in a variety of use cases; for example, the 'waste hierarchy' is well known, with its focus on Avoid> Reduce> Reuse> Recycle> Recover> Disposal, or variations on this. Likewise, in more recent years, for tackling climate change the IEMA greenhouse gas (GHG) management hierarchy<sup>10</sup> advocates Eliminate> Reduce> Substitute> Compensate. Most recently in the UK, the biodiversity net gain hierarchy advocates Avoid> Minimise> Restore/Remediate> Compensate. The recent Levelling Up and Regeneration Act 2023<sup>11</sup> commits to the implementation of a mitigation hierarchy based on Avoid> Mitigate> Compensate. The current Environmental Impact Assessment (EIA) Regulations specifically mention the need to Avoid> Prevent> Reduce> Offset regarding mitigation.

Some practitioners and academics have also proposed an additional positive step running alongside the mitigation hierarchy: 'enhance'.<sup>12</sup> This is not surprising as the legal requirement for EIA is for the identification, description and evaluation of significant environmental effects – including positive effects. While the UK's EIA Regulations (and EU EIA Directive basis) only require the process to seek to apply the mitigation hierarchy, IEMA, as a champion for sustainability, recommends going beyond damage avoidance and seeking opportunities for enhancements. IEMA also recognises that while there are strict legal requirements for addressing negative impacts, project proponents cannot necessarily be forced to pursue enhancement as a goal through the EIA process alone. However, there is increasingly other policy or legal drivers that do expect this. For example: the five-yearly Environmental Improvement Plan produced under the 2021 Environment Act; the Well-being of Future Generations (Wales) Act 2015;<sup>13</sup> the requirement for biodiversity net gain;<sup>14</sup> or the Public Services (Social Value) Act 2012<sup>15</sup> on public sector schemes. In addition, voluntary corporate policies and wider standards in the private sector may require a proposed project, which happens to require EIA, to also consider environmental and/or social enhancement.

For at least the past decade, IEMA has recommended the inclusion of an 'enhancement' or 'betterment' consideration by the developer's EIA team (see Sections 3.1 and 3.2 of these guidelines) as a good practice activity alongside the mitigation hierarchy. This position has not changed for this guidance, even though its uptake remains aspirational in some sectors. It should be noted that within the technical process of impact assessment, enhancement needs to be treated separately to the mitigation of adverse effects within the EIA and should not be confused. Enhancements, while they can feed into the design process and be incorporated into the project design and project description, as well as being implemented during other phases of the project, should not be used as offsets or mitigation for adverse effects, since they would then be classed as mitigation rather than true enhancements. However, if a project design/proposal set out in the project description does provide evidence that it would generate significant positive effects, these must be recorded in the Environmental Statement/EIA Report as part of the description of effects to meet regulatory requirements on presenting the proposal's significant effects.

In summary, despite variations in terminology, the mitigation hierarchy concept provides a clear and consistent model by which a systematic approach to mitigation of adverse effects can be applied at all stages of a project. Pre-consent applications should include the consideration of the mitigation hierarchy from the very beginning at the concept phase of a project, through the design phase, to the point at which a consent decision is made. Post-consent application of the hierarchy will be present from the point at which consent is granted, through construction/commencement, operation and finally to decommissioning/repowering/renewal. The mitigation hierarchy can guide decision-making at all these stages of the project. However, critically, the upper levels of the mitigation hierarchy are most achievable the earlier they are applied, i.e. **the concept, feasibility and site selection phases of the project provide the best opportunities for avoiding a significant environmental impact.**

<sup>10</sup> IEMA GHG Management Hierarchy. Available at: [www.iema.net/document-download/51806](http://www.iema.net/document-download/51806)

<sup>11</sup> Part 6 Section 153 (4) Levelling Up and Regeneration Act 2023.

<sup>12</sup> For example: Cares, RA, Franco, AMA and Bond, A (2023) 'Investigating the implementation of the mitigation hierarchy approach in environmental impact assessment in relation to biodiversity impacts', Environmental Impact Assessment Review 102. See: [doi.org/10.1016/j.eiar.2023.107214](https://doi.org/10.1016/j.eiar.2023.107214)

<sup>13</sup> Well-being of Future Generations (Wales) Act 2015.

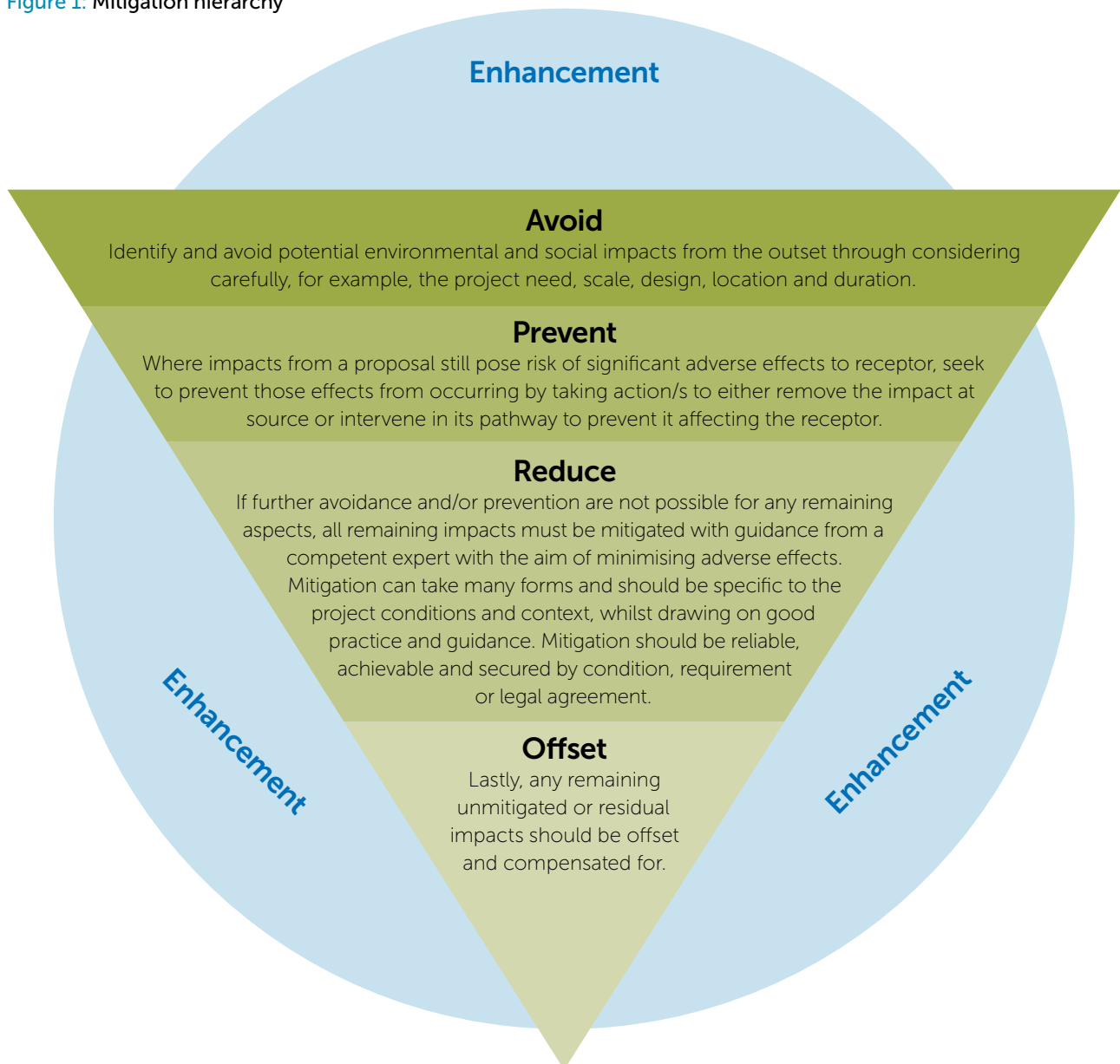
<sup>14</sup> [www.gov.uk/guidance/understanding-biodiversity-net-gain](http://www.gov.uk/guidance/understanding-biodiversity-net-gain)

<sup>15</sup> Public Services (Social Value) Act 2012.

The Environmental Statement/EIA Report<sup>16</sup> should clearly set out how the mitigation hierarchy has been applied and demonstrate how it has influenced the project, starting with the project need, overall design and consideration of alternatives, and then again within individual assessments of specific aspects, topics or factors.

The IEMA EIA mitigation hierarchy has a series of systematic steps in order of preference, with enhancement running alongside, as shown by Figure 1.

Figure 1: Mitigation hierarchy



<sup>16</sup> Where 'Environmental Statement' is used on its own, the information is the same for the 'EIA Report' in Scotland.

# 3. Shaping quality development

## 3.1 Overview

This section of the guidelines establishes the principles and framework for maximising the interaction between environmental thinking and project design within the decision-making process, with an emphasis on embedding the mitigation hierarchy into the pre-consent phases (for post-consent, see Part 2). The aim of this section is to contribute to the delivery of proportionate Environmental Impact Assessment (EIA) and, more importantly, shape decision-making that leads to higher-quality development proposals.

Following this guidance will improve EIA practitioners' understanding of how to ensure the EIA process effectively interacts with other pre-application project activities, to generate an improved development proposal and better environmental outcomes that otherwise would not have been achieved.

Maximising this interaction will help the reader to:

**Improve environmental outcomes:** projects are designed from the outset to enhance social and environmental outcomes and avoid and reduce adverse impacts.

**Generate better-informed decision-making:** from the earliest stages, both those developing a project and those affected by it are informed about likely environmental implications, consenting risks, programme constraints and potential environmental, social and economic costs arising.

**Contribute to better solutions:** working together to consider the environmental, social, commercial and operational requirements of a project, by optimising design through collaboration.

**Reduce consenting risk, consenting delay and associated costs:** the apparent cost savings of a project that is based on the most economic design, ignoring environmental and social impacts, are regularly outweighed by prolonged negotiations required to achieve consent, expensive mitigation measures and restrictions imposed by conditions or requirements.

In order to document this interactive approach, these guidelines suggest a narrative-led method to Environmental Statements, whereby the process of environmentally informed design and the inclusion of mitigation (primary and tertiary) as part of the design process are clearly described in one place within the document. This has the benefit of providing a more proportionate Environmental Statement, which sets out a clear rationale and description of the proposed development which is seeking consent.

## 3.2 EIA coordination principles

Underpinning the approach set out within this section are four EIA coordination principles, which provide an effective overarching approach to shaping design via the EIA process:

**1 Early, effective and ongoing interaction** – occurring between environmental thinking and the design process.

**2 Appropriate stakeholder engagement** – used to gather external views on the approaches that could be taken, before a decision is made and only where the opportunity to actually influence the decision exists.

**3 Consenting risk is managed** – saving time and costs by taking effective account of environmental issues within a responsive design process.

**4 A clear narrative** – developed to provide a record of how the project's design has responded to the environmental and social issues identified; this is used to produce a justifiably proportionate Environmental Statement, and in other environmental reporting.

### **Early, effective and ongoing interaction**

Environmental thinking should be applied to the project from the earliest possible stage, based on the involvement of appropriate competent experts in the decision-making process through regular iterative engagement with project leaders and decision-makers, including those directing the development of the project (clients) and designers. Ideally, environmental thinking and relevant environmental studies should inform early decisions taken about need, project viability, site selection and risk. This approach reduces the likelihood of projects being commenced on a basis that already has built-in negative environmental effects that could have been avoided.

As the project moves into the EIA process, assessments identify potential environmental effects which, combined with ongoing consultation and discussion with stakeholders and designers, lead to design refinements. This process continues until the design is optimised and sufficiently fixed for assessments to be finalised – so that those assessments are based on the likely significant environmental effects of the final optimised design, which is submitted in support of the application for consent (see Figure 2).

### **Appropriate stakeholder engagement<sup>17</sup>**

Stakeholder engagement is on a spectrum which ranges from inclusive engagement, allowing input into truly open decisions, to informing stakeholders of a predefined decision. It is important that the timing and method of engagement is tailored in light of design matters as well as the planning and EIA process. For highly constrained projects where consultees and the public could have little influence on the design, the approach should still be to engage early and to be transparent and open about proposals and constraints.

For projects where there are more options and where there are real possibilities for public and consultee influence, consultation should seek input and be early enough in the programme for the design to respond. In all instances, consultation should be clear about what opportunity there is to influence design, in order to avoid causing consultees to feel that input which could have been acted upon has been ignored.

### **Consenting risk is managed**

Consenting risk is reduced through designing out negative effects and designing in environmental benefits via the EIA process, presenting a clear narrative of the design process and providing a proportionate Environmental Statement focused on the significant effects that remain. This should result in a design that responds to the environment, and an Environmental Statement that communicates clearly and with the minimum of complexity. Effective consultation with relevant decision-makers and their advisers from an early stage is also important. These two factors will increase decision-makers' confidence that they understand the development and its likely effects, and that the design has been genuinely optimised.

### **A clear narrative**

Communicating a focused appreciation of environmental context via EIA and how it has informed the final optimised design is important for all projects and should be proportionate to the nature and likely significance of the effects. The value of effective EIA practice is likely to prove particularly important for those projects which are controversial or are located in especially sensitive settings. A clear narrative of the alternatives considered, and how the design has evolved and addressed environmental concerns, can help to engender a clear picture of the way in which all of the potential effects have been considered 'in the round' in reaching an optimised design. By maintaining a comprehensive, structured record of how the design has responded to environmental issues, the EIA coordinator can evidence and inform this narrative, which should be captured in the Environmental Statement and also may be reflected in other application documents (such as a consultation report, or design and access statement).

By ensuring that the Environmental Statement contains a clear narrative that describes both how the design has responded to environmental issues and how stakeholder and public concerns have been addressed and modified based on consultation feedback, the developer can aid decision-makers in developing a clear and informed understanding of the assessment and the identified effects.

<sup>17</sup>The International Association for Impact Assessment (IAIA) provides a useful document on international best practice principles in public participation; see [www.iaia.org/uploads/pdf/SP4.pdf](http://www.iaia.org/uploads/pdf/SP4.pdf)

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For certain projects – for example, those falling under the Development Consent Order (DCO) regime – there is an explicit requirement to include a Statement of Community Consultation (SoCC). However, in terms of good practice (and in some cases from local policy requirements), there is benefit for all EIAs to explicitly include a narrative (either in a dedicated chapter, subsection or annex) explaining what the main consultation feedback or issues raised were, and how they have been addressed (or not).

Recognising that EIA and project evolution is an iterative process, it may be that issues that were originally scoped in as potential significant effects, following further survey and assessment, or due to design modification, can be entirely avoided, following the mitigation hierarchy. It is recommended that this process is explained clearly and transparently in the Environmental Statement, especially if an issue is raised in the formal Scoping Opinion<sup>18, 19</sup> as the EIA Regulations require the EIA to be based on the latest Scoping Opinion.

For this reason, if an EIA coordinator wishes to remove a factor entirely from the Environmental Statement (that formed part of the Scoping Opinion), due to design changes or further information rendering the potential impacts obsolete, then this should be formally agreed in writing with the relevant stakeholders and determining authority in advance of the publication of the Environmental Statement.

### **3.3 Interaction of EIA, design, engagement and digital working**

The EIA and design processes should interact with each other, with both being informed by, and informing, ongoing stakeholder engagement. Alongside this and embedded within it is the adoption of digital ways of working.<sup>20</sup> EIA identifies potential environmental effects which, combined with ongoing engagement with stakeholders, often leads to design refinements to reduce the significance of negative environmental effects. This relationship is illustrated in Figure 2.

<sup>18</sup> See Section 3.5 in these guidelines for more information on scoping.

<sup>19</sup> Please note that under the Developments of National Significance (DNS) process in Wales, it is referred to as a 'Scoping Direction'.

<sup>20</sup> See IEMA (2024) A Roadmap to Digital Environmental Assessment.

Figure 2: The interaction of design, digital and environmental assessment processes

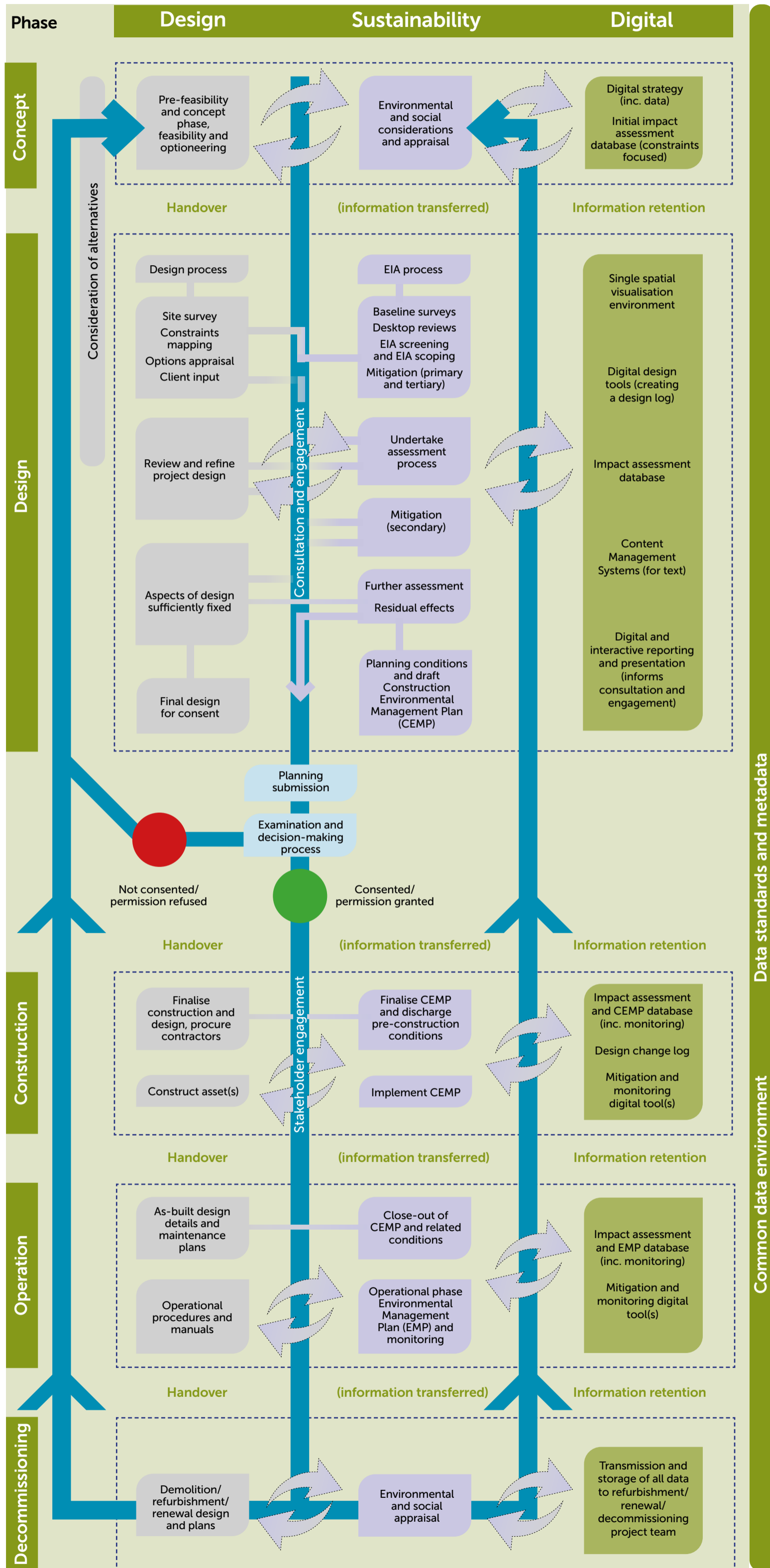


Figure adapted and expanded from: IEMA (2015) IEMA Environmental Impact Assessment Guide to Shaping Quality Development.

### 3.4 Framework for delivering EIA and designing interactions

EIA can influence design in many ways, and the earlier the interaction between the EIA process and the design process, the more likely it is that cost-effective, positive outcomes will be achievable. Examples of how EIA can influence design in the application of the 'avoid' and 'prevent' steps of the mitigation hierarchy include:

- The review and selection of alternative development sites to avoid key sensitive receptors
- Altering site layout to work with a site's existing natural systems
- Amending the design of a specific aspect to manage impacts
- Specifying particular construction techniques to avoid effects on particular receptors
- Changing materials to reduce volume and/or transport impacts.

Figure 3 sets out the framework for delivery of the principles of the interaction of the EIA and design processes through coordinating the EIA process and preparing the Environmental Statement.

**Figure 3: Environmental assessment and design interaction framework**

Principle	Framework of action areas			
1 Early, effective and ongoing interaction	A	Advocacy and persistence	Teamwork and communication	Record-keeping
2 Appropriate stakeholder engagement	B	Informed environmental input		
3 Consenting risk is managed	C	Design fix/freeze and evolution	Classified mitigation	Environmental enhancement
4 A clear narrative	D	Focused Environmental Statement chapters		



## Framework of action areas

### A.1 Advocacy and persistence

From the earliest stages, all environmental professionals involved in the project – in particular the EIA coordinator – should proactively advocate the principles set out in the earlier part of these guidelines (Section 3.2), to maximise the benefits and get the whole project team on board.

The whole project team includes, but is not limited to:

- The client team and/or development promoter
- Planners
- EIA team
- Stakeholder communications/engagement team
- Designers
- Legal advisers
- Engineering and construction teams.

Positive outcomes still may be achievable even if professional environmental input and advice is only recognised later in the process. Persistence in working towards an interactive approach, even in small ways, can yield benefits.

### A.2 Teamwork and communication

To ensure that environmental impacts are avoided or reduced as part of the design process, and that mitigation measures are built in rather than requiring them to be bolted on, EIA coordinators must foster good working relationships with all members of the project team. This includes, critically, the client, who will ultimately have to fund the implementation of mitigation and enhancement. Naturally, clients will seek to reduce costs, and therefore clear communication is essential to explain the rationale, necessity and/or benefits behind the need for the mitigation and/or enhancement being proposed.

Ideally, there should be early and ongoing interaction with the client, designers, construction teams and contractors or their representatives during the formulation of mitigation, to ensure that measures are viable and are factored into construction costs. However, it is common for a project to not have appointed contractors at the pre-consent phase. Therefore, it is important to seek early contractor involvement, or advice from experts with construction experience, to review and provide insights into the mitigation design to ensure feasibility and inform cost estimates.

The EIA coordinator and practitioners should engage with internal stakeholders early in the pre-application process, and there should be interaction between the EIA coordinator and all members of the project team (e.g. developer, project manager, architects, engineering and environmental specialists, etc) during the design and specification of mitigation to ensure that the requirements are clear and tested. This will reduce risk, improve the likelihood of successful delivery and ensure that the information flow throughout the process is clear.

EIA cannot be undertaken as a remote function if a truly interactive design process is to be deployed. All team members have a role in identifying opportunities to avoid adverse effects, maximise benefits and/or deliver appropriate mitigation. They offer different perspectives on the form of mitigation that would be the most suitable to deliver the environmental outcome required/proposed (primary, secondary and tertiary – see Annex A in these guidelines). This has the benefit of developing and refining mitigation through an iterative process.

An iterative process allows mitigation to be embedded into the design, where possible, and allows sufficient time for measures to be tested for financial and technical viability/feasibility before being included in the application/consenting documentation. Such discussions can also ensure that there is buy-in and commitment from the applicant and internal stakeholders.

The EIA coordinator also forms a key link between all of the team members and is in a position to monitor whether proposed design changes may have potential environmental effects – for example, where a form of mitigation proposed to minimise one environmental effect could cause adverse effects for other environmental factors. The EIA coordinator should recognise that communication is a key aspect of their role and seek to facilitate it. For some projects this may mean organising and coordinating design meetings that bring together the design, technical, commercial and environmental disciplines, as well as possibly the client, those overseeing planning and the land and communications disciplines. Importantly, where mitigation is proposed it should be made clear to all lead specialists across the different factors what mitigation has been agreed as primary, secondary or tertiary, so that this is treated consistently across the assessments.

Communication also forms a key part of the 'Framework of action areas to deliver post-consent principles' detailed in Part 2 of these guidelines.

### A.3 Record-keeping

All key decisions regarding design and environmental mitigation should be recorded, detailing what was decided and why, from the earliest possible stage.

This recording process should be managed by the EIA coordinator, and recording should be on an ongoing basis to avoid the quality of such information deteriorating over time. Ideally, this should be done digitally for efficiency and ease of handover between phases.<sup>21</sup> There are five key benefits to keeping these records:

- 1 As the design evolves, it is easier to check back and ensure that a new decision does not reverse something important that was decided previously. This is not likely to happen for simpler projects, but for complex projects with very long time frames the reasons behind previous design decisions can be forgotten, especially if team members change.
- 2 The list of key mitigation commitments can be itemised, enabling their ongoing tracking into conditions, requirements, management plans or detailed design. This enables post-consent tracking and allows a check against the design drawings submitted with the application.
- 3 The parameters on which the EIA is based can be clearly set out. Section C.2 of this framework, regarding mitigation, describes an approach to identifying mitigation measures which facilitates this. This is valuable in dealing with post-consent modifications, as it clearly flags up those aspects of design that have been relied on in reaching judgements, and which may require reassessment if amended.

- 4 A detailed record of design decisions forms the basis for setting out the project description and design narrative – telling the story of how the project has evolved to take account of environmental factors. This is also important for the 'Consideration of alternatives' chapter/section in an Environmental Statement.

- 5 Good record-keeping of decisions ensures that the interaction of design and assessment is transparent, allowing people from different disciplines, within the project team (see Figure 2), to check whether each decision will have an impact on their area of responsibility, and if so, what impact that decision will have. On the environmental side, this improves intra-project cumulative effects, where mitigation measures to reduce an impact in one area can inadvertently cause additional negative impacts to others (e.g. a noise mitigation bund generating a negative visual impact).

### B.1 Informed environmental input

The timing of seeking stakeholder input on relevant environmental issues (including the screening and/or scoping processes) should be driven by the availability of sufficient project detail and baseline information, to permit adequately informed submissions and encourage adequately informed consultee responses. As the project evolves, consideration should be given as to whether further consultation is required to allow consultees to respond in respect of key design changes. Techniques which can be used include the Rochdale Envelope<sup>22</sup> and/or the use of parameter plans. The planning strategy including the type of application to be made will inform the level of detail, but one may not be a direct reflection of the other. For example, if a detailed planning application is to be made, it does not necessarily mean that the Environmental Statement must mirror that level of detail.

<sup>21</sup> IEMA (2024) A Roadmap to Digital Environmental Assessment.

<sup>22</sup> Advice Note Nine: Using the Rochdale Envelope (The Planning Inspectorate, 2018).

### C.1 Design fix/freeze and evolution

As the design progresses, it is important to ensure that the EIA team is kept aware of which aspects of the design and technical options are fixed and which are still evolving. Starting assessments before the design is sufficiently fixed can result in unnecessary rework; however, each environmental factor area may require different aspects to be 'fixed' before the assessment can be started (or finalised). It is essential that all factors included in the EIA ultimately assess the final design, in order to ensure that the content of the Environmental Statement provides a consistent, relevant and accurate description of the project's significant environmental effects.

In finalising the design that forms the basis for the Environmental Statement and consent application, there is a balance to be maintained between a detailed design and similarly detailed project description which provides certainty, and one which provides sufficient flexibility to take account of, for example, future advances in construction techniques or technology. It is important that the EIA coordinator provides input into the discussion on the level of detail required. This is needed to ensure that the EIA team can undertake an adequate and proportionate assessment for their discipline, without constraining the ability to improve the design.

EIA practitioners will often refer to a 'design freeze' rather than a 'final design'. During the iterative assessment process, the words 'freeze' or 'initial freeze' are used to indicate that it is a temporary pause rather than the final position.<sup>23</sup> The practical reason for needing a freeze at some point is that if all aspects of the design are constantly changing it is very hard to undertake assessments that need to be based on clear parameters. However, if the design is fixed too soon, then there is little ability to use the outcomes from the EIA to then inform design changes, i.e. applying the mitigation hierarchy to avoid and prevent impacts through design iteration. In addition, an early freeze may mean it is not possible to take on board comments from the consultation process, thus negating the purpose of the consultation process in informing the development. Therefore, the ideal design process is iterative. An initial design is produced alongside assessments which are undertaken to identify potential impacts, constraints and opportunities. Major

environmental and social issues should be flagged at every stage, from concept phase onwards, to allow the design to evolve in an informed manner to avoid impacts.

Over time, these designs will become more and more detailed and fixed as the design moves from concept through to pre-feasibility, feasibility and outline design.

Design teams and EIA practitioners will need to understand and accommodate the fact that some elements of design will need to wait until post-consent contractor involvement before they can be finalised, such as certain aspects of materials and construction methods. However, where there are potential significant effects identified, it may be necessary to bring forward aspects of detailed design into the pre-consent phase in order to apply the mitigation hierarchy; this may require the engagement of early contractor involvement. Therefore, the design of the project put forward for consent is unlikely to be of a uniform level of design detail. Some aspects of the design will be very outline, with broad parameters, while other aspects will be closer to a detailed design. This is a concept that some EIA practitioners, engineers, architects and designers may struggle with.

Using the narrative-led approach, it is important that the Environmental Statement describes the influence that the environment and consultation responses have had on design evolution, and how that led to the specific development proposal, thus meeting the requirements of the EIA Regulations in respect of alternatives. One way of achieving this is via a chapter dedicated to the topic of the design evolution and consideration of alternatives, which can then be referenced by other chapters. Having described this evolution process, the project description should clearly describe only the final design, explicitly referencing the mitigation measures incorporated into the design as primary mitigation (see the description in Section C.2).

<sup>23</sup> The term 'design chill' is also sometimes used, representing the design at a point in time before the 'design freeze'.

### Example 1: Primary mitigation and iterative design

An example of iterative design and the interaction with environmental assessment and mitigation in practice can be provided by imagining a building with a fully glass façade, located in close proximity to a major road junction. The design was a result of the design evolution process and had been ‘frozen’ for the purpose of assessment as part of the EIA. However, as part of the EIA process, a subsequent analysis of the solar glare identifies potential for unanticipated significant adverse impacts to car drivers using the major road junction, as a result of the highly reflective glass façade and proximity to said junction. To reduce the scale of this solar glare effect on the car drivers to the extent that it is no longer significant, it is proposed to amend the façade design by introducing solid horizontal fins that reduce the reflectivity. These solid fins, in agreement with the project’s design team, should be incorporated into the proposed development (and project description) as primary mitigation to avoid significant adverse solar glare effects to the road users of the junction. This mitigation has been proposed in response to an identified potential effect, and following the mitigation hierarchy has led to the avoidance or reduction of the effect and can be reported in the assessment as a primary mitigation within the Environmental Statement.

## C.2 Classified mitigation

Classifying mitigation measures into one of three key types helps to achieve a more proportionate Environmental Statement, as it allows for some mitigation measures to be taken-as-read in assessing effects (i.e. these mitigations are embedded intrinsically into the project design as set out in the project description). Annex A of these guidelines sets out three distinct forms of mitigation:

- 1 Primary (inherent)
- 2 Secondary (foreseeable)
- 3 Tertiary (inexorable).

As set out earlier in this guide, clear communication from the EIA coordinator across the leads for each factor is needed to ensure consistent use of terms, and to understand what mitigation measures have been agreed as primary, secondary or tertiary. It is also important to have clear definition of terms such as ‘embedded’ to avoid inconsistent use across chapters.

The core definitions of these three types of mitigation are presented below (with further detail set out in Annex A).

**Primary mitigation** is an inherent part of the project design – it should be described in the design evolution narrative and included within the project description. For example: reducing the height of a development to reduce visual impact.

### Example 2: Primary mitigation

A proposed electrical grid connection is being considered at pre-feasibility stage. The potential for significant adverse landscape and visual impacts on a protected landscape from a new overhead power line is identified at this early stage. Following the mitigation hierarchy, the first step for an identified impact is to see if it can be avoided. In this case, the location may or may not be fixed due to the grid connection points, therefore two avoidance options would be available. One would be to take a route through less protected landscapes, if available; this may reduce the impact, but will unlikely avoid the impact entirely. A second option would be to bury the electrical connection, thus removing the main visual and landscape impact. While this may lead to other impacts and costs, it would avoid the landscape and visual impact identified. If the final design put forward for consent is a buried cable system, then the decision to bury the cable rather than use an overhead transmission line is an example of primary mitigation to reduce landscape and visual impacts (i.e. it is an inherent part of the buried transmission project design).

**Secondary mitigation** requires further activity in order to achieve the anticipated outcome – typically, these will be described within the chapters of the Environmental Statement, but often they are secured through planning conditions, requirements and/or management plans<sup>24</sup>. For example:

- Lighting limits that will be subject to submission of a detailed lighting layout as a condition of approval.
- Landscaping and planting to reduce noise or visual impacts, subject to the submission of a detailed landscape plan and acoustic assessments, including proposed maintenance and monitoring, as a condition of approval.
- Construction phase traffic management plan (e.g. covering route control, temporary signage, temporary road modifications, operational time limits to certain days and times, and weight and height restrictions), subject to submission of detailed proposals and approval by the relevant highway authorities as a condition of approval.

Typically, the majority of secondary mitigation are construction-related impacts and are often grouped together under an outline Construction Environmental Management Plan (oCEMP; see Section 4 of these guidelines for more details on oCEMPs).

**Tertiary mitigation** will be required regardless of any EIA assessment, as it is imposed, for example, as a result of legislative requirements and/or standard sectoral practices. For example: considerate contractors practices that manage activities which have potential nuisance effects.

Often these types of tertiary mitigation may also be captured in the oCEMP or contained in an outline Code of Construction Practice (CoCP). Typically, these measures are standardised and often covered by other forms of legislation or controls, therefore they do not need to be presented in extensive detail in the EIA. An example in the UK is the health and safety of workers: these risks are covered by existing health and safety laws and regulations, and the EIA will simply state that these laws will be followed and may only provide additional detail where unusual or specific risks require additional measures not normally applied in a typical construction project.

## General advice on mitigation terminology in the Environmental Statement

Itemising the mitigation measures within the Environmental Statement, and identifying which type of mitigation each measure is, aids clarity and clearly flags up which aspects of the design are primary mitigation measures. Itemisation also assists consideration of post-consent design development or amendments by identifying what can and cannot be changed without requiring reassessment, and what needs to be done to deliver mitigation during the post-consent stages. Finally, it aids clear identification of the secondary mitigation measures which may need to be secured via planning conditions, requirements and/or management plans.

Alternative terminology to these three categories (primary, secondary, tertiary) is often used in Environmental Statements, with different terms being used by different consultants, sectors or developers. Two of the most frequently used terms include 'embedded mitigation' and 'additional mitigation'.

The term 'embedded mitigation' is not used consistently and depending on the project may refer to:

- Primary mitigation only
- Primary and committed secondary mitigation
- Primary, committed secondary and tertiary mitigation.

In the first case, when used to mean primary mitigation only, this is sometimes also referred to as 'mitigation by design' and reflects the concept that the mitigation being described has been incorporated into the primary design, as set out in the project description. Often, potential impacts that were identified using the mitigation hierarchy and then 'avoided' by changing the location or design of the project are therefore described as embedded mitigation. In other cases, the term embedded mitigation is used to include both primary mitigation and any committed secondary and/or tertiary mitigation that – if consented – would be defined and secured through conditions, requirements, agreements or plans.

<sup>24</sup> As this IEMA guidance seeks to provide advice across sectors, jurisdiction and scales of projects, advice here is indicative. Depending on the scale and context, some projects may provide a commitment to produce a plan, with little content in the Environmental Statement; others may provide an outline of a plan, while for more complex projects a more detailed outline or draft of a plan may be provided.

Given the lack of consistency, IEMA recommends that the primary, secondary and tertiary terminology should be used to promote consistency. If alternative terms – such as embedded mitigation or mitigation by design – are used, they should be clearly defined in the EIA methodology to avoid confusion among stakeholders, planners and regulators.

Similarly, it is common to see the term ‘additional mitigation’ used in some Environmental Statements. Again, this is not always used consistently and depending on the project may refer to:

- Secondary mitigation
- Tertiary mitigation
- Secondary and tertiary mitigation.

As with the use of the term embedded mitigation, given the lack of consistency, IEMA recommends that the primary, secondary and tertiary terminology should be used to promote consistency. If the term additional mitigation is used, it should be clearly defined in the EIA methodology.

Using the narrative-led approach advocated by IEMA, both primary and tertiary mitigation should be clearly included in the project description and can be taken-as-read in assessing effects. The basis for the EIA should be that both these forms of mitigation definitely will be delivered: thus, any effects that might have arisen without these forms of mitigation do not need to be identified as potential effects, as there should be no potential for them to arise.

Therefore, the difference in significance between potential effects and residual effects only requires consideration where secondary mitigation is involved – resulting in a simpler and more proportionate Environmental Statement.

### **C.3 Environmental enhancement**

Outside of specific requirements for biodiversity net gain (BNG), which require a minimum of 10% of biodiversity enhancement for projects in England,<sup>25</sup> there is no regulatory driver for securing overall environmental gain through development. However, the EIA process is likely to gather information that could allow a developer to build effective and valuable environmental benefits into the

design of their project. Such benefits can help enable development and provide reasons for communities and wider stakeholders to support the developer’s aspirations for the site. The EIA coordinator has a role in encouraging the assessment team to identify such opportunities, and in ensuring that these are communicated to the developer and design teams and reflected clearly in the Environmental Statement.

Where significant environmental enhancement has been incorporated into a project design or proposal (not in relation to mitigating an impact), this may also be assessed to determine if it will result in likely significant positive effects as set out in Schedule 4 of the EIA Regulations requiring a description of positive effects on the EIA factors. As noted earlier, measures designed to mitigate or offset environmental impacts should not be described as enhancements and should instead be referred to as mitigations.

### **D.1 Focused Environmental Statement chapters**

Where the narrative-led approach is being followed, as previously discussed, chapters should take as read both primary and tertiary mitigation measures in identifying potential effects. The outcome of this approach should be to generate fewer, more proportionate Environmental Statement chapters (see Figure 4 for advice on identifying a proportionate Environmental Statement chapter).

The project description, presented in the opening part of the Environmental Statement, should be sufficiently detailed that each chapter can refer back to it and rely on this content; this is further aided if the Environmental Statement includes a clear, itemised mitigation summary (see Part 2 of these guidelines and advice in Section C.2 and Figure 4). Then, each chapter need only provide a very brief reference to the aspects of the design (primary mitigation) and tertiary mitigation that are relevant to the factor under consideration. Secondary mitigation will require more detailed description.

<sup>25</sup> [www.gov.uk/guidance/understanding-biodiversity-net-gain](http://www.gov.uk/guidance/understanding-biodiversity-net-gain)

**Figure 4: Review checklist for proportionate Environmental Statement (ES) reporting using the narrative-led approach**

The proportionate ES:	The proportionate ES chapter:
1 Has a project description which clearly describes the parameters of the development and sets out all primary and tertiary mitigation included	1 Refers to the main ES project description and design evolution
2 Clearly describes the evolution of the design and details how environmental affects have been avoided or reduced through the design process	2 Briefly summarises key mitigation relevant to the topic
3 Contains a clear, itemised mitigation summary	3 Only assesses potential effects arising from the final design, incorporating all primary and tertiary mitigation
4 Only contains those chapters needed to report on likely significant effects arising from the finalised design	4 Only identifies pre-mitigation effects and residual effects where secondary mitigation is required
	5 Focuses primarily on significant effects

### 3.5 Specific uses of mitigation during EIA

The general principles for utilising mitigation to shape better-quality development are provided in the previous section. In the following sections, guidance is provided on specific use cases of mitigation throughout the assessment process.

#### Mitigation for EIA screening

Screening is the process in which the requirement (or not) for a statutory EIA is determined. Typically, this process involves reference to the relevant schedules within the EIA Regulations. Schedule 1 sets out which types of projects automatically trigger the need for EIA (for example, nuclear power stations) and Schedule 2 lists the types of projects that may require EIA depending on whether the consenting authority considers the proposal likely to have significant effects on the environment. The definition of a Schedule 2 development is dependent not just on the type of project described, but also whether any part of it is located within a sensitive area (a term which is defined in the EIA Regulations) or whether the proposal meets

or exceeds the relevant threshold and criteria set in the schedule. For projects which constitute Schedule 2 developments, Schedule 3 must be considered to determine whether significant effects on the environment are likely to occur; where this is the case, an EIA is required. Schedule 3 contains further selection criteria which take into account contextual factors such as the location and characteristics of the development and the types and characteristics of potential impacts.

The EIA Regulations enable a developer to make a screening request during the pre-application period. As such, in practice it is common for the proponent of a development to submit a formal request for a 'screening opinion', often referred to as a 'screening letter'. The 2017 EIA Regulations set out specific details about the proposed development, related environmental sensitivities and predicted environmental effects that the developer must provide to the determining authority to enable it to produce its screening opinion. If these details are not provided, the authority is required to go back to the developer to ensure they are produced and submitted.

For Schedule 2 developments it is therefore common practice to provide evidence in support of the request and to put forward the proponent's view, based on this evidence, if the project qualifies as an EIA development (or not). The determining authority – the Local Planning Authority (LPA) or competent authority – then has a specified time frame in which to respond with a formal screening opinion setting out if the project qualifies as an EIA development or not.

Since the publication of the 2015 and 2016 IEMA guidance, which these guidelines supersede, new EIA Regulations have been passed in the UK from 2017 (implementing the 2014 version of the EIA Directive). The current EIA Regulations stipulate that there is the ability for the applicant to include mitigation at the screening stage to ensure that EIA is undertaken only for those projects that are likely to have significant effects on the environment. However, the regulations – and related EIA legal cases – are very clear that **this is a limited power**.

A determining authority is only allowed to apply measures that would act to avoid or prevent what would otherwise have been considered to be a significant adverse effect from occurring within its screening opinion. This makes sense as any mitigation referenced at the EIA screening stage could only be considered to be indicative of the steps that could be taken to control effects. There is no means of securing mitigation through an EIA screening opinion, and in any event, when an application is submitted the LPA is entitled to revisit any earlier EIA screening opinion, as the details of the project may have altered from those outlined in any pre-application EIA screening opinion request.

The determining authorities' judgement at screening is focused on likely **significant** effects. To conclude that an EIA is not required, the authority must either be clear that despite risks of adverse effects from the proposal to the environment, these are not likely to be significant effects, or where such effects are likely to be significant that any proposed mitigation (most likely in the form of design features) will lead to the effect being avoided or prevented

to remove the possibility of a significant adverse effect from occurring. Where a determining authority is of the view that a significant effect is likely to occur, but the developer's request has proposed measures that would seek to reduce the effect or compensate for it, such measures are irrelevant to the authorities' judgement and unable to be used to conclude EIA is not required.

Therefore, if it can be demonstrated that the proposed development includes measures to avoid or prevent what might have otherwise been significant adverse environmental effects, EIA may not be required.<sup>26</sup> For example: a screening request may identify that the proposed development risks introducing a specific potential significant effect on a sensitive receptor (in this case, a specific species), but then also define project-specific mitigation measures on the timing of the works generating the impact that respond to the species in question (e.g. avoiding works during that species' migration or breeding season).

Confusingly, the criteria within Schedule 3 of the EIA Regulations – which must be considered by the determining authority when making a screening opinion – were not updated in the 2017 Regulations and still include a sub-criteria under section 3, Types and Characteristics of the Potential Impact, that notes "the possibility of effectively reducing the impact". While the retention of this criteria almost certainly encourages proponents to include wider – reductive – mitigation measures in the information they submit in their screening request, it does not alter the regulatory requirements that a determining authority only apply 'avoid' or 'prevent' measures as part of the evidence behind a screening opinion that concludes EIA is not required.

As such, standard 'tried-and-tested' mitigation measures such as an oCEMP can be included in a screening request, but only those elements within it that act to avoid or prevent adverse effects can be used as evidence if the determining authority concludes EIA is not required.

<sup>26</sup> Note that Habitat Regulations Assessment (HRA) screening is different on this point, and mitigation cannot be taken into account at the screening phase but should instead be considered as part of the main appropriate assessment. See *Appropriate Assessment*. Therefore, it is theoretically possible to have a situation, for example, where a Natura 2000 site is screened/scoped out of the EIA process, through the early commitment to mitigation designed to avoid impacts, but the site would still need to be included in the Stage 1 HRA. The mitigation can then be proposed as part of the appropriate assessment for the HRA.



While incorporating mitigation measures into the screening process can justify why the proposed development may not constitute an EIA development, a robust evidence base must be provided to establish that, through the incorporation of such **avoid and prevent** mitigation measures, potential significant effects are not expected. Where potential adverse effects on the environment are identified in a screening request, but they are not considered to be significant effects, the developer should clearly state this before any related reference to mitigation is made. Without this separation of significant and general mitigation measures, there is a risk the determining authority will conclude the proponent has in fact identified multiple significant effects that are only manageable through a suite of reductive measures and management activities, which could lead to an EIA being required when it may not have been necessary.

A screening opinion request report may be front-loaded with preliminary environmental assessment work, which would otherwise be expected to be produced later in the pre-application process. This could include providing accurate visualisation renders of the proposed design in the context of the surrounding environment, to visualise and ensure the design is in keeping with the local townscape/landscape and heritage assets, or in the case of ecology, an ecological survey and proposed ecological mitigation strategy.

While this preliminary environmental assessment work is completed earlier than typically undertaken, it should not prove to be abortive work, as the planning application will still likely require the support of a suite of standalone technical reports (e.g. Heritage and Visual Assessment, Ecological Assessment, Transport Assessment, etc) to demonstrate compliance with other legislation, such as the Ancient Monuments and Archaeological Areas Act 1979 or the Wildlife and Countryside Act 1981 (as amended).

In cases where the timescales to complete the preliminary assessment work may not be sufficient, an applicant may choose to take a 'worst-case-scenario' approach and take into consideration mitigation actions which would definitively mitigate any potential environmental effects to a level that is not considered significant. This broader

approach to mitigation will not affect the regulatory limitations upon a determining authority to only consider avoid or prevent measures in relation to its judgement around likely significant effects and is open to review at the point of submission of the application, as a screening opinion cannot secure mitigation. Further to this, the approach also comes with the risk that excessive mitigation may be applied, rather than taking a proportionate approach, which for the applicant can be extremely costly. In addition, some statutory stakeholders are averse to a worst-case-scenario approach without any evidence or survey data to support the assumptions. As such, the proponent's approach to both what mitigation is included in a screening request and how this is presented should be carefully considered with a competent EIA consultant before it is submitted.

While a commitment to including mitigation measures at the screening stage can be beneficial in reducing the requirement for additional assessments, legal challenge risks remain, especially when a determining authority screening opinion is inconsistent or places over-reliance on these measures where likelihood for significant effects cannot be ruled out.

The case of the Champion ruling<sup>27</sup> proves to be an example of this, where the planning permission for a proposed development in North Norfolk was ultimately revoked. The claimant submitted a challenge in that the proposed development could lead to potential significant effects due to runoff polluting a local water course designated as Special Area of Conservation (SAC) by the EU Habitats Directive (92/92/EC). North Norfolk Council issued a screening opinion stating that an EIA was not required, concluding that with the proposed mitigation measures, there was no risk of significant effects. However, the council also imposed planning conditions requiring the developer to monitor water quality and to take steps to improve it should there be any noticeable degradation. The Court ruled that this was mutually inconsistent, and that the council's screening exercise was legally defective.

<sup>27</sup> R (on the application of Champion) (Appellant) v North Norfolk District Council and another (Respondents).

Ultimately, it's essential that any suggested measures are carefully considered, backed up by evidence and informed through the use of competent experts. This will enable the determining authority to make an informed decision regarding the necessity of an EIA. It also ensures that the applicant doesn't have to undertake overly burdensome and potentially expensive mitigation efforts solely to reduce the risk of legal challenges. Further guidance on the role of mitigation in screening can be found through government guidance on this area of the regulatory process, including:

- Northern Ireland's 2023 Development Management Practice Note 9B: EIA Screening<sup>28</sup>
- Nationally Significant Infrastructure Projects – Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements.<sup>29</sup>

Overarching government/devolved administration EIA regulatory guidance also provides coverage of the screening process, such as that produced by the Department for Levelling Up, Housing and Communities and the Scottish Government.

### **Mitigation for EIA scoping**

Following the screening stage, for EIA developments, the developer's work moves on to the scoping process. The EIA Regulations provide the proponent with a voluntary opportunity during their ongoing scoping process to make a 'scoping request' to the determining authority. The scoping process seeks to reach agreement on the scope and level of detail of the information to be provided in the Environmental Statement. Typically scoping seeks to define what factors should be assessed, the methodology to be used, and key parameters such as the location, duration and extent of the assessments to be undertaken.

In terms of the EIA Regulations, the proponent of the development may request a formal Scoping Opinion from the determining authority – this is typically referred to as the scoping request. The determining authority is required to invite key statutory consultees to provide their own opinions on specific factors to feed into the Scoping

Opinion (e.g. in England, the Environment Agency will be consulted by the determining authority for its opinion on the likely impacts on rivers and flooding and any advice on an appropriate methodology to assess these factors). Once a Scoping Opinion has been issued, the subsequent EIA must be based on it, or as otherwise formally agreed with the determining authority (which may involve further engagement with the relevant consultee/stakeholder who has contributed to the Scoping Opinion).

As already set out above, if primary mitigation has been successfully incorporated into aspects of the design, it may be that the potential for some significant effects has been avoided, and therefore a specific assessment chapter regarding those factors may not be needed. In this instance, it is recommended that the rationale for this proposal is clearly evidenced, justified and explained within the proponent's scoping request. It must be recognised, however, that neither the scoping process, nor the issuing of a Scoping Opinion, has any ability to impose conditions on a proposed development; as such, the resulting EIA must remain live to the need to re-scope areas of the assessment if the design changes at a later date, or if previously unknown environmental sensitivities or issues emerge at a later point in the consenting process.

In many cases, a proponent will choose to include a scoping report within their request for a Scoping Opinion, although it should be noted the EIA Regulations do not require this. A common failure of scoping requests and reports is that they do not provide sufficient evidence to support the scoping-out or proportionate scoping of assessments. Scoping-out refers to removing a factor from consideration, and the proposal to scope-out an issue or factor is often set out and evidenced by the applicant/developer in their scoping report. For example, for a development on an undeveloped greenfield site, and supported by a site walkover and desk-based information such as historical mapping, there are no known historical sources of contaminants and therefore a detailed and intrusive contaminated land investigation can be scoped-out of the EIA. The request to scope-out a factor must be accompanied by a rationale with supporting evidence.

<sup>28</sup> See: [www.infrastructure-ni.gov.uk/publications/development-management-practice-notes](http://www.infrastructure-ni.gov.uk/publications/development-management-practice-notes)

<sup>29</sup> See: [www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an#eia-screening](http://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an#eia-screening)

Furthermore, in addition to scoping-out factors, the scoping process can also be used to scope-down issues, to agree a limited or proportionate scope for a factor. For example, ecological effects might be scoped-in, but based on desk-based information, consultation and a good extended Phase 1 habitat and species walkover survey, the scope of the ecological assessment may be limited via the scoping process to focus on a small selection of relevant species and/or habitats at risk (see Example 3).

### Example 3: Proportionate scoping

A project has carried out a desk-based ecological review and Phase 1 extended ecological walkover of a proposed site, supported with some early stakeholder engagement. This preliminary work has identified the potential for impacts on bats in some old buildings on the site; there are no other protected species or protected sites or habitats of note. A proportionate scope for the ecological assessment in the EIA would therefore be focused on seeking to assess and apply the mitigation hierarchy for the protection of bats. The scoping report should therefore present the findings of the preliminary assessments and early stakeholder engagement, along with its conclusion to focus the ecological element of the EIA on the protection of bats, including a proposed detailed methodology following good practice guidelines for the subsequent bat surveys using competent experts with the appropriate licences.

In the absence of any desk-based research, stakeholder engagement or surveys, a standard – and potentially disproportionate – approach to the ecological scope would be to require a full suite of detailed surveys for all protected species (e.g. water voles, great crested newts, badgers, etc) as well as ornithological surveys and habitat surveys. In this case, it is by carrying out the early desk-based assessment, preliminary ecological appraisal and early stakeholder engagement in advance of the scoping request, that provides the robust evidence base that can be used within the scoping report to justify the rationale for the more streamlined and proportionate scope based on the project specifics – in this case, the assessment of bats only.

Scoping-in is the reverse of scoping-out: a factor is scoped-in where there is potential for a significant effect (positive or negative) on at least the environmental factors listed in the Regulations. However, even when it is clear that a factor should be scoped-in, efforts should be made to propose a proportionate scope, based on best available evidence at the time of the scoping report, to seek to reach agreement on a risk-based and targeted approach and avoiding excessive assessment of issues and effects that are unlikely to be significant.

Excessive or disproportionate scope of assessment is often a result of the proponent seeking a Scoping Opinion too soon (i.e. before they have sufficient evidence from initial assessments and surveys to support scoping-out or developing a more targeted proportionate scope). In the absence of robust evidence or data, it is common for a determining authority and its statutory advisers to apply the precautionary principle and request factors to be scoped-in to the assessment, or to require the scope of an assessment to be comprehensive and detailed across all aspects.

Depending on the level of information provided at scoping, it may not be possible to establish whether significant effects are likely until a detailed assessment has been undertaken. Other contributing causes may include other constraints such as a lack of expertise, capacity and/or experience within LPAs, statutory and non-statutory bodies responding to scoping requests, leading to risk-averse behaviours with regard to proportionate scoping. This is a key barrier to proportionate scoping and subsequent proportionate assessment and reporting.

Further information on scoping is provided in IEMA's 2017 Proportionate EIA Strategy,<sup>30</sup> which calls for "far more focus on justifying decisions related to scoping, with consultees and consenting authorities providing better explanation of their reasoning to scope issues in, and an equal need for developers and consultants to clearly justify why factors have been scoped-out or scoped-down". In summer 2024 Northern Ireland will publish Development Management Practice Note 9C: EIA Scoping, which provides the UK's first in-depth consideration of the role of scoping in the delivery of proportionate EIA since IEMA's strategy was launched.<sup>31</sup>

<sup>30</sup> See: [www.iema.net/resources/reading-room/2017/07/18/delivering-proportionate-eia](http://www.iema.net/resources/reading-room/2017/07/18/delivering-proportionate-eia)

<sup>31</sup> See: [www.infrastructure-ni.gov.uk/publications/development-management-practice-notes](http://www.infrastructure-ni.gov.uk/publications/development-management-practice-notes)

This guidance recommends the seven steps set out in Figure 5 with regards to the effective use of mitigation to support proportionate scoping:

**Figure 5: Using mitigation to inform EIA scoping**

1 <b>Use competent experts</b> to advise on impact assessment from the earliest possible stage of planning a development. This will be well in advance of the formal EIA phase and will typically be at concept, feasibility, consideration of alternatives and/or site selection phase.
2 <b>Apply the mitigation hierarchy</b> to these early stages to avoid significant adverse effects and identify early opportunities for enhancement or betterment. <sup>32</sup>
3 <b>Engage early with key stakeholders</b> , affected communities and statutory bodies to understand any key concerns regarding the project.
4 <b>Undertake preliminary assessments</b> for any identified impacts that cannot be avoided, to establish if the impacts can be prevented through the use of mitigation and management measures.
5 <b>Use iterative design</b> to amend the proposed development based on the feedback from stakeholders and preliminary assessments, and reapply the mitigation hierarchy to look for opportunities for enhancements and, where possible, to avoid impacts through design changes. There may be the need for several design iterations that repeat this feedback loop.
6 <b>Prepare mitigation proposals</b> based on the final design for any remaining impacts, with location- and context-specific information setting out how the impacts can be managed to avoid significant adverse effects, taking account of the stakeholder engagement and preliminary assessment.
7 <b>Prepare clear and detailed scoping evidence</b> (e.g. within a scoping report) that explains the steps that have been taken to integrate environmental and social considerations into the design evolution (i.e. primary mitigation), with a clear and evidence-based rationale for your proposed scope for the EIA. Utilise evidence from the design process, early stakeholder engagement and preliminary assessment to focus the scope of the EIA on key remaining issues, proportionate to the risk of likely significant effects. Provide compelling evidence for scoping-out non-issues, and for setting a targeted and proportionate scope for any remaining issues based on evidence from preliminary surveys, stakeholder engagement and specific mitigation commitments.

<sup>32</sup> While enhancement opportunities should not be confused with mitigation, and may have strong links with other aspects of the wider design of the proposed project, they should still be identified as early as possible to maximise the chance of including them in the design of the development.

Much like terrestrial development, inclusion of mitigation measures as part of the marine and coastal EIA scoping process is commonplace and while there is little detail on specific requirements for mitigation at this stage under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended), guidance around the UK jurisdictions encourages inclusion.

By including proposed mitigation measures as part of the EIA scoping process, it may be easier for the developer to make the case for scoping-out or scoping-down specific factors from EIA; this can lead to more proportionate EIA, leading to significant advantages for the applicant/developer, the regulator and any external parties wishing to review the eventual EIA.

A second key advantage to including mitigation measures as part of the EIA scoping process is that feedback from the regulator can be obtained, as informed by relevant stakeholders. At this stage, before the formal EIA process, it is particularly important for the regulator to provide such advice, especially where they may disagree with a particular measure or have material comments on how it could be refined.

### 3.6 Presentation of mitigation in an Environmental Statement

The aim of the EIA process is to identify and assist in the management of environmental and social effects throughout a project's life cycle, creating often complex, lengthy documents. The correct implementation of the mitigation hierarchy aids in the reduction of this complexity and length by removing the risks through careful iteration of design and location to avoid adverse effects in the first instance, rather than seeking to assess and mitigate the effects.

It should be noted, however, that it is not always possible to eliminate the risk of significant impacts through site selection – for example, in the case of minerals or a port expansion – which at an EIA level may only be proposed in the location in which they occur. In these cases, the consideration of alternative sites may be focused on an earlier strategic environmental assessment level (including considering the 'do nothing' option) and considering other sites regionally or nationally – for example, considering wider port or airport capacity, or mineral availability nationally – as part of the project rationale or needs-case.

#### Pitfalls of poor mitigation

Common issues with the failure to implement mitigation during construction and operation phases, leading to environmental impacts and project delays, can often be traced back to how well the mitigation has been identified and thought through in the Environmental Statement. For example, the following should be the subject of careful review when authoring an Environmental Statement:

- Mitigation not identified in the Environmental Statement – it is possible that mitigation is mentioned, referred to or assumed in an assessment but is not translated into an explicit mitigation action. This could be an oversight, or drafting or editing error.
- Mitigation is unclear – for example, it is described in a vague manner and therefore open to wide interpretation, or not obvious.
- Mitigation of limited feasibility – this may be the case, for example, where mitigation does not properly consider construction techniques or the phasing of construction and therefore cannot be deployed during construction, or cannot be maintained during operation of a development.
- Mitigation of limited benefit – mitigation that can be delivered but which in practice may not actually deliver a proposed reduction in significance of effects.
- Mitigation identified within the Environmental Statement, but not summarised and not obvious – given most statutory EIA run to several hundred pages (and major infrastructure projects can be tens or hundreds of thousands), simply finding out what is required post-handover can be extremely challenging.

### **Clear reporting of primary, secondary and tertiary mitigation**

All mitigation measures, be they primary, secondary or tertiary, should be included within the Environmental Statement. The Environmental Statement should clearly distinguish which measures are primary and inherent to the project, and which therefore have been taken into account when assessing a proposed development. It is recommended that the project description and consideration of alternatives are accompanied by a clear narrative that sets out how the mitigation hierarchy was applied during the iterative design process to avoid impacts and embed primary mitigations into the intrinsic design and selection of the location of the project.

The Environmental Statement should also clearly identify key secondary mitigation measures, and how these measures assist in mitigating adverse effects in terms of a corresponding residual effect. The detailed presentation of secondary mitigation should be included in the relevant chapter (factor or section) that contains the assessment of the effect that the mitigation is designed to prevent or reduce, i.e. ecological mitigation should be set out in the ecological assessment.

The mitigation should be related clearly to the assessment and explain the rationale for the mitigation. Detailed information should be included on its design, location, method, timing and who is responsible for carrying it out; and how it is proposed to be secured (e.g. through a planning condition/requirement), implemented (e.g. via a competent ecologist as part of an agreed ecological mitigation plan that is part of a wider CEMP) and monitored (e.g. through site inspection and audits of the CEMP carried out by an independent Environmental Clerk of Works).

When identifying and recommending a mitigation measure to avoid, prevent, reduce or, if possible, offset an identified potential adverse effect, ensure the mitigation is set out clearly and transparently in the chapter to allow a reader to understand. See Figure 6.

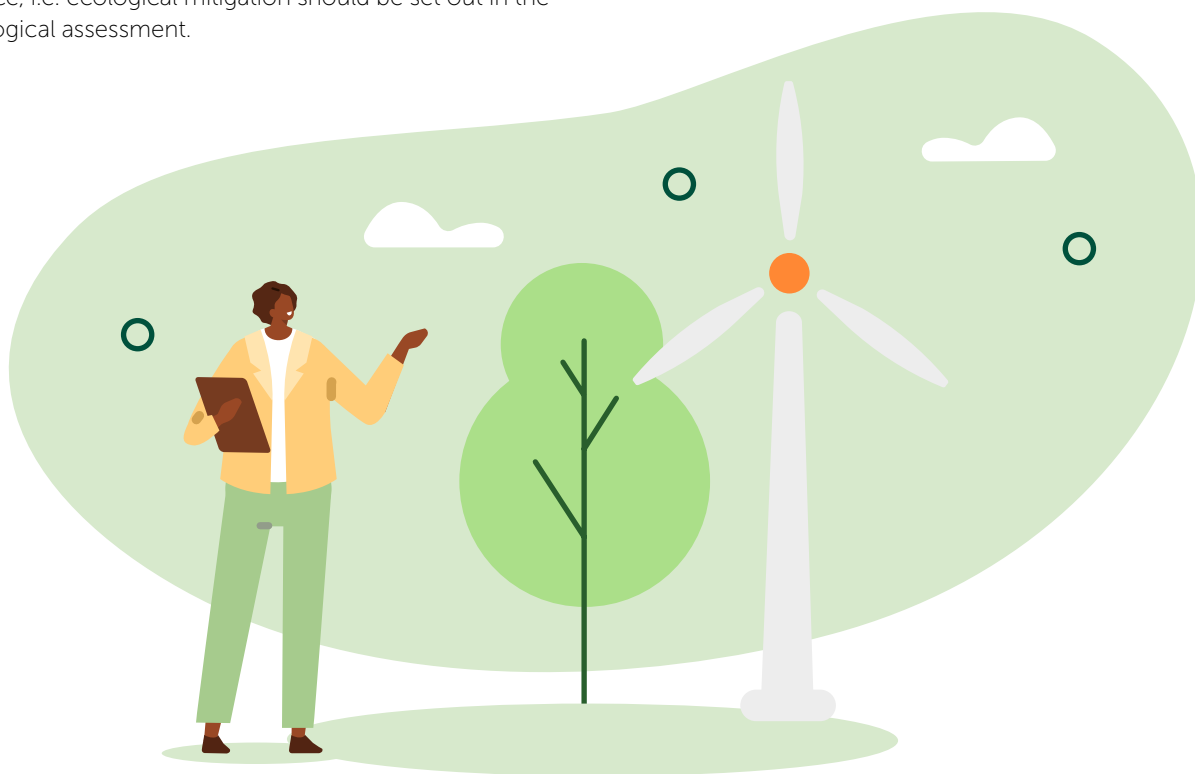


Figure 6: Checklist for EIA chapter authors on mitigation description

<input type="checkbox"/>	<b>Link to effect and evaluation of significance:</b> Has the mitigation been clearly linked to an effect that it is seeking to prevent, reduce or offset? Where relevant (see Section C.2), is significance evaluated and presented both before and after mitigation (residual effect), including consideration of any uncertainties, e.g. linked to responsibilities, securing compliance and likelihood of achieving the targeted outcome.
<input type="checkbox"/>	<b>Target outcome:</b> Has the outcome the mitigation is designed to achieve been clearly stated? Is the mitigation designed to completely prevent an effect <sup>33</sup> or is it targeted at the reduction of an effect (and if so, by how much <sup>34</sup> )?
<input type="checkbox"/>	<b>Methodology:</b> Has a detailed methodology been provided to carry out the mitigation? Has reference been made to any design standards, published methodologies or good practice benchmarks? These should be clearly stated.
<input type="checkbox"/>	<b>Spatial scope:</b> Has the mitigation been clearly linked to a specific geographic location of the anticipated effects and is it clear to which location the mitigation should be applied?
<input type="checkbox"/>	<b>Temporal scope:</b> Has a specific duration, timing and frequency been stated for when the mitigation should be applied? In addition, in terms of the broader programme, is it clear whether the mitigation should be implemented pre-consent, pre-construction, during construction, during operation or during decommissioning?
<input type="checkbox"/>	<b>Responsibility:</b> Has the responsibility for carrying out the mitigation been clearly stated (i.e. is the mitigation to be carried out by the contractor, the developer or some other party)? Are any specific skills, competencies or licences required to carry out the mitigation (i.e. are specialists required to carry out the mitigation)?
<input type="checkbox"/>	<b>Securing compliance:</b> How will the monitoring be secured legally? What planning conditions, requirements or legal agreements will cover the mitigation proposed to ensure that they are carried out?
<input type="checkbox"/>	<b>Monitoring:</b> How will the mitigation be monitored to ensure that the preceding points have all been adhered to? What safeguards are in place to apply adaptive monitoring in the event that the mitigation is not achieving its objective or in the event that unexpected adverse effects arise? Will the monitoring be undertaken by an independent Environmental Clerk of Works (EnvCoW)? <sup>35</sup>
<input type="checkbox"/>	<b>Discharge of conditions:</b> If the mitigation is likely to require third-party verification, the mitigation description should also clearly state which other parties or regulators will likely need to be involved in the approval or audit of the mitigation. For the purpose of discharging a condition, is there a clear and unambiguous objective that can be achieved and demonstrated to be so?

<sup>33</sup> For example, the removal of a hedgerow outside of the bird breeding season to prevent impacts on a breeding bird.

<sup>34</sup> For example, if a noise bund is proposed to reduce noise at the perimeter of the nearest residential property boundary at nighttime by X decibels, then this should be clearly stated. This is particularly important for later monitoring of the effectiveness of the bund to achieve its stated objective of noise mitigation.

<sup>35</sup> How will the contractor be monitored to ensure they are carrying out any mitigations appropriately as part of their contract conditions? From a regulator/competent authority/LPA's perspective, how will monitoring be achieved without relying solely on self-monitoring by developers or contractors, which may lead to a conflict of self-interest? LPAs are sometimes under-resourced, and traditionally self-monitoring may have been considered the only option, however as set out in Section 7 of these guidelines, IEMA recommends that authorities should make use of an EnvCoW.

### 3.7 Need for monitoring

This section refers to the need for monitoring of mitigation measures, which is an essential element of post-consent EIA follow-up. Section 7 discusses monitoring further. The need for monitoring is twofold:

- First, there are specific requirements to consider the need for monitoring that arise as part of the EIA regulatory process – for example, considering whether to establish monitoring measures related to significant adverse effects identified in the Environmental Statement or the monitoring of mitigation designed to avoid, prevent or reduce those effects.
- Second, there is a general need for monitoring for compliance with a large number of laws, policies, regulations, contractual terms, permit conditions and industry good practice (both those identified in the EIA but also many other requirements falling outside of EIA).

In practice, there is often some confusion about the need for monitoring, with some practitioners and planners only talking about monitoring set out in conditions or requirements. To be clear, it is this IEMA guide's view that all mitigation requires monitoring; this is part of basic good practice for environmental management. The difference is to what extent a mitigation measure requires monitoring, ranging from general monitoring as part of a wider Environmental Management System (EMS), versus specific forms of monitoring requiring additional resources and/or expertise over and above what would be expected during a standard environmental management and auditing system.

At a basic level, monitoring can relate to observations and recordings made throughout the demolition and construction works – for example, noise, vibration or dust monitoring carried out via site inspections and audits by an environmental management team. In addition, monitoring can be relevant at the operational stage of a development – for example, in relation to a staff or residential travel plan and use of cycle parking or electric vehicle charging facilities.

More specialised monitoring may also be required – for example, in cases where mitigation needs to be checked and validated for performance as part of a pre-commencement condition or requirement. For example: the creation of new ponds and/or habitat and the successful translocation of species from an area of habitat to be removed may require protected species licences, as well as verification by expert ecologists and representatives from statutory nature conservation bodies.

Whatever the mitigation measures and monitoring set out with the Environmental Statement, these should be critically reviewed by the LPA, Marine Authority, Planning Inspectorate or Secretary of State (as relevant to the type of planning application) and appropriately secured through planning conditions (or requirements) relating to the planning permission, Section 106 agreement or other appropriate mechanism.

IEMA's review of the state of EIA practice in 2011, and subsequent engagement with members and stakeholders, has identified a lack of monitoring of mitigation and conditions to be a major failing of the regulations. Enforcement, in particular, has been found to be ineffective in securing environmental protections as identified in the EIA, due to lack of regulator and LPA resources, and the failure to secure and/or require independent monitoring from developers. These issues were also highlighted by the Office for Environmental Protection in its autumn 2023 report into the effectiveness of environmental assessment (including EIA) in England.<sup>36</sup>

While the EIA regulatory minimum is set out at the start of this section, this guide advocates that monitoring measures should be described and clearly identified for all mitigations to help derive consenting, environmental/community and developer trust benefits. Figure 7 provides the justification behind this guide's call for monitoring on all EIA projects.

<sup>36</sup> See: [www.theoep.org.uk/report/environmental-assessments-are-not-effective-they-should-be-due-practical-barriers](http://www.theoep.org.uk/report/environmental-assessments-are-not-effective-they-should-be-due-practical-barriers)



**Figure 7: Need for monitoring EIA mitigation**

- 1 **Audit:** In order to be able to confirm that each specific mitigation has been carried out as designed and is achieving the objective for which it was created, audit should be standard part of an Environmental Management System (EMS) at construction, operation and decommissioning phases.
- 2 **Adaptation:** Where the result of an EMS audit has identified opportunities for improvement, failures in implementation or failures to achieve the target outcome, monitoring needs to be adaptive and feed into any necessary changes to the mitigation during implementation to achieve the stated objective.
- 3 **Unforeseen effects:** General project monitoring is also important from an EMS perspective to highlight any unforeseen effects not identified within the EIA. These may arise on site due to circumstances such as ground conditions, weather conditions, accidents, changes to methodologies or unanticipated interactions between activities, etc.
- 4 **Compliance:** Monitoring should also be carried out to demonstrate compliance with laws, legal agreements, contractual agreements, standards and planning conditions or requirements. For compliance monitoring, IEMA recommends that an independent third party, such as an Environmental Clerk of Works (EnvCoW), is employed at the cost of the developer, but appointed by and reporting to the LPA and regulators directly, to provide independent verification of compliance, free from any perceived or actual conflict of interest.<sup>37</sup> This role should be separate to the internal EMS management and audit role responsible for carrying out the adaptive mitigation implementation set out in points 1-3 above.

### Using summaries, schedules or registers of mitigation and monitoring

In addition to the detailed presentation of mitigation and monitoring within the relevant chapter of the Environmental Statement, a summary of all EIA mitigations should also be produced as part of the Environmental Statement so that all mitigations are easily contained in a single register (or schedule, etc) that can be used to inform conditions/requirements and inform subsequent stages of implementation. This is essential to provide clarity for stakeholders, LPAs, competent authorities and subsequent users post-consent, rather than having the mitigations spread out across multiple chapters, reports and appendices of the Environmental Statement. Therefore, a complete schedule or register of mitigations is essential, in addition to the presentation within specific assessments. See Section 4 for guidance on the use of Codes of Construction Practice (CoCPs) and outline Construction Environmental Management Plans (oCEMPs) as potential tools to collate all mitigation measures

identified within the EIA in a single document that can then be conditioned and utilised post-consent to inform subsequent stages of development.

As set out above, the Environmental Statement may also be accompanied by or refer to management plans or management documents, which relate to mitigating adverse environmental effects and which would implement these measures at the relevant time in a project life cycle. These documents may be required by local validation requirements for planning applications, or separately identified. These could include documents such as a CEMP, travel plan (for either demolition and construction or upon completion and operation of a proposed development) and landscape management plan. In the case of an EIA development, however, it is likely that key management plans such as CEMPs will be identified as mitigation measures within – and form a part of – the EIA itself, rather than simply in response to a local validation requirement.

<sup>37</sup> This will also be beneficial to developers and contractors in speeding up discharge of conditions by providing the resource needed to monitor and verify the completion of mitigation.

Where mitigation measures are proposed during the EIA scoping process to aid in scoping-out a specific issue or whole technical discipline, these measures should also form part of the mitigation for the proposed development. It is crucial that mitigations, relied on at the scoping stage, are also detailed in the Environmental Statement summary of mitigation, as this will ensure the determining authority remains aware of them and can consider whether to make them conditions of any consent awarded. On occasions this may mean the mitigation/monitoring measure may not have a corresponding chapter in the Environmental Statement, as the commitment to these measures was already agreed – via a Scoping Opinion, for example – and thus formed the rationale for not including the assessment chapter.

### **Consistent terminology**

As set out above, the complexity of the impact assessment and the commercially driven nature of the construction phase tender process can often lead to the project-specific requirements being missed by the tendering parties and therefore not implemented. It is therefore vital that the construction phase mitigation requirements are 'pulled out' of the various environmental assessment documents and supporting reports so each action is visible, and that they are detailed in such a way that can be programmed and budgeted for.

If there is no consolidated list of actions or requirements, then there is a risk that mitigation gets missed in the CoCP/oCEMP and supporting documentation. A solution to this is the use of lists that are variously called 'schedules of mitigation', 'mitigation registers', 'commitments registers', 'register of environmental actions and commitments' or 'summaries of mitigation'. These different terms are often used in different sectors, geographies or by specific developers or consultants, and generally mean the same thing.

IEMA recommends moving towards consistent terms to aid transparency and clarity for all stakeholders. However, at present, a range of documents and systems are used, and this varies across geographies, sectors and within individual organisations. Typical repositories of environmental information are Environmental Management Systems (EMS), Environmental Management Plans (EMPs) and Construction Environmental Management Plans (CEMPs). These may also be developed in phases, with draft or outline versions at the earlier phase of project development, which are later developed into more detailed documents and systems.

The important point is to recognise that all projects need a central repository of environmental information that exists across the project life cycle and is transferred across project phases and stages, starting at the project concept stage, then evolving over time as a central register of key environmental and social considerations, tracking potential environmental and social risks and potential impacts as they develop. Implementing an early EMP/EMS will aid in capturing early inputs to the consideration of alternatives and early inputs to site selection and design evolution. At the early stages, the EMP/EMS should mirror similar concepts such as an engineering or architectural design log, a health and safety book or a risk register, but be focused on environmental and social rather than architectural, health and safety or project management considerations.

#### Example 4: Highways England's EMP and REAC

Highways England's Design Manual for Roads and Bridges (DMRB) LA 120 Environmental Management Plans Revision 1 – March 2020<sup>38</sup> promotes a three-stage approach, based on first, second and third iterations of the EMP, for projects by National Highways. DMRB recommends consolidating environmental mitigation in one document, known as a 'register of environmental actions and commitments' (REAC). The REAC forms part of the overall EMP for a highways project.

DMRB LA 120 provides an approach for highways projects that can help to ensure a consistent minimum of information is carried through to the CoCP/CEMP. It states that a REAC must include:

- Clear and specific description of the action
- The objective of the action
- How the action is to be implemented/achieved
- The source of the action, including references for source documentation
- Naming of the person responsible for the action, i.e. the principal contractor or environmental manager
- Achievement criteria and reporting requirements
- The project stage, date or implementation and achievement
- Details of any monitoring required, what should be monitored and how results should be used to effect necessary action.

DMRB LA 120 identifies that the second iteration of the EMP is prepared by the appointed principal contractor during the implementation of the scheme which reflects the mitigation contained within the REAC. Any remaining items from the REAC which relate to the post-construction and operational stage of the scheme will be part of the third iteration of the EMP. Therefore, the REAC acts in part as a 'bridge' between the three iterations of the EMP through the life cycle of the scheme. This reduces the risk that mitigation identified in the environmental assessment documentation is missed.

#### Information continuity and transfer of knowledge between phases

A common problem with the effective implementation of mitigation on site is that there is a lack of consistent minimum information carried through to inform the development of a CEMP. This is a particular risk for a project subject to a multi-stage consent where an outline level of detail is provided in the planning application and EIA based on a set of development parameters, perhaps supported by a high-level oCEMP. In such cases, it is likely that the level of detail in terms of the construction environmental management approaches and control measures would not be fully understood, as this would need to be developed when the reserved matters applications are brought forward, containing the full details of the proposed development (within the parameters approved in the outline planning permission). In addition, it is most likely that early contractor involvement would not be available at the pre-application stage of a multi-stage project. Furthermore, at this stage in the process it is likely to be undesirable to describe in full detail the construction management processes, plans and controls which would be at risk of becoming out of date and/or conditioned, and therefore ineffective. Such eventualities would require applications to vary conditions at the reserved matters application stage, which is undesirable.

The information contained within an early EMP/EMS is envisaged to predate the EIA and can be used to inform later milestone documents such as the EIA screening request, EIA scoping report and, later, reporting of consideration of alternatives in the Environmental Statement. Similar to the REAC example (see Example 4), early EMP/EMS can then form the repository of all mitigation, monitoring, commitments, requirements and conditions, along with associated data from previous phases of development, becoming the living repository of environmental and social information for the project.

<sup>38</sup> See: [www.standardsforhighways.co.uk/tses/attachments/a3a99422-41d4-4ca1-bd9e-eb89063c7134?inline=true](http://www.standardsforhighways.co.uk/tses/attachments/a3a99422-41d4-4ca1-bd9e-eb89063c7134?inline=true)

A good EMP/EMS will then be an invaluable resource to support the procurement and tender process for contractors and support the further development of oCEMPs into detailed CEMPs. It is also commonplace that gaining consent may take a number of years, or there may be a number of years post-consent, due to land acquisition, raising finance, procurement and/or the development or transfer of legal entities. The consented project may also be transferred (or sold) to another department or entity within or between organisations.

The combination of time elapsed and the transfer of a consented project between entities can often result in the loss of project knowledge, including knowledge of the environmental and social mitigations, requirements, conditions and commitments. Even with a relatively rapid construction project following consent, within the same organisation, the construction or operational delivery team often comprise a different group of professionals to the consenting team. Therefore, knowledge loss between project phases and project handover is commonplace.

The early adoption and use of an EMP/EMS is therefore a core recommendation of this guidance to help support better data and document management and the transfer of information between phases and parties, to ensure important environmental and social mitigations, monitoring, commitments and conditions are implemented and adhered to. It is envisaged that an early or draft EMP/EMS will ultimately be incorporated into a fully functioning EMS during the operational phase of the project; will provide an important record of the earlier phases; and will be an invaluable source of historical data for the project for any future expansion, refurbishment, regeneration or demolition.

### 3.8 Securing mitigation with conditions/requirements

#### Risk of mitigation not being implemented

IEMA research has shown the difficulties in linking EIA-derived environmental mitigation to planning conditions, requirements and obligations as during the implementation phases, conditions and associated documentation tend to supersede the Environmental Statement. Therefore, unless

carefully transposed, many measures can be lost. In one study, approximately half the environmental mitigation measures proposed in Environmental Statements were not required through planning conditions or obligations, casting doubt as to whether they would be implemented.<sup>39</sup> To ensure environmental mitigation measures proposed can be translated into enforceable and precise planning conditions or obligations, greater attention is needed by EIA coordinators to frame mitigation appropriately.

#### Use of conditions to secure environmental mitigation

The National Planning Policy Framework states that planning conditions imposed on planning permission should be “kept to a minimum” and “only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects”.<sup>40</sup> It goes on to say that conditions should be agreed early to speed up decision-making and that conditions which are required to be discharged before the start of development should be avoided unless there is clear justification.

As part of the determining authority’s compliance with the 2017 Regulations’ legal definition of EIA they are required to examine the environmental information (Environmental Statement, other/further information and consultation responses) to reach their reasoned conclusion of the significant effects of the development. As part of this process, they consider whether to impose conditions related to the environment and any monitoring measures related to significant adverse effects. Further, from May 2017, the UK’s amended EIA Regulations (Regulation 29(2) (b)(bb) and (cc)) included a requirement that consent decisions for EIA development be accompanied by information, including details of conditions relating specifically to the control of significant environmental effects, and a description of features/measures to avoid, prevent, reduce or offset significant effects. When developing mitigation, EIA coordinators and project team members (e.g. planners and lawyers) can review and advise whether the measures proposed and the way in which they are presented will facilitate their transposition during the consenting process. This should also reduce instances of the use of standard conditions/requirements by consenting authorities and stakeholders which may not be proportionate to the project and the likely significant effects identified.

<sup>39</sup> Lauren Tinker, Dick Cobb, Alan Bond, Mat Cashmore (2005) Impact mitigation in environmental impact assessment: paper promises or the basis of consent conditions? *Impact Assessment and Project Appraisal*, 23:4, 265-280. See: [doi.org/10.3152/147154605781765463](https://doi.org/10.3152/147154605781765463)

<sup>40</sup> Paragraph 56 of The National Planning Policy Framework 2023.

Following planning submission, during examination, the EIA coordinator and – where relevant – topic specialists should have an ongoing involvement during the consenting process to ensure the mitigation measures identified through the EIA are properly transferred into consent documentation and associated conditions/obligations/requirements.

Furthermore, during discussions and negotiations with consenting authorities and stakeholders, alterations to mitigation measures originally proposed may be made. The EIA coordinator should track such alterations and feedback whether these will change the outcome reported in the Environmental Statement and other planning application material.

If unavoidable changes are identified, further iterative assessment may be required and submitted as supplementary information. Clearly changes to mitigation that are intended to be secured via conditions and that have informed the assessment should be avoided as they can cause further delays and introduce additional costs and risks. This underlines the importance of properly assessing and designing mitigation, including early contractor involvement, in the preceding phases of assessment to avoid costly deviations post-consent.

The overall outcomes of the consenting process should be documented in the CEMP (and/or EMP depending on the project) to maintain an accurate record of what has been agreed.

### **Government guidance on use of planning conditions and requirements<sup>41</sup>**

The UK government's<sup>42</sup> guidance on the use of planning conditions<sup>43</sup> explains how conditions attached to a planning permission should be used and discharged effectively. The objectives of planning are best served when the power to attach conditions to a planning permission is exercised in a way that is clearly seen to be fair, reasonable and practicable. It is important to ensure that conditions are tailored to tackle specific problems, rather than standardised or used to impose broad, unnecessary

controls. The main legal powers relating to the use of conditions are in sections 70, 72, 73, 73A, and Schedule 5 of the Town and Country Planning Act 1990 (as amended; TCPA) or in the case of Development Consent Orders (DCOs), section 120 of The Planning Act 2008. The guidance referred to above also explains the approach that should be taken to using conditions, including the tests that should be met. Similar powers and advice exist across planning in Northern Ireland, Wales and Scotland, as well as specific requirements for development consents outside of the planning and DCO regimes, which EIA practitioners should ensure they are familiar with when working on such proposed developments.

As set out above, the tests include that the condition should be necessary, relevant to planning, relevant to the development to be permitted, enforceable, precise and reasonable in all other respects. The guidance also covers conditions relating to time limits, the use of pre-commencement conditions, and discharging and modifying conditions once planning permission is granted.

Planning conditions or requirements should be used to ensure that the mitigation specified in an Environmental Statement (oCEMP, EMP, REAC) is implemented as part of the planning consent, permission and/or permit. For example, if the Environmental Statement states that a CEMP will be prepared by the applicant/applicant's contractor, then a pre-commencement condition could be sought to ensure this occurs pre-commencement. This would mean that the Environmental Statement and planning application would not necessarily need to contain the full detailed CEMP, which would be best prepared at a time prior to construction by a contractor, which may be some years later in the case of a multi-stage consent.

For TCPA non-outline applications, other than where it will clearly assist with the efficient and effective delivery of development, or where it is clearly needed to secure compliance with a mitigation that has been relied upon to justify the acceptability of the development, it is important the LPA limits the use of conditions requiring its approval of further matters after permission has been granted.

<sup>41</sup> Note conditions are referred to as requirements for Development Consent Orders (DCOs). Such requirements may correspond with conditions which could have been imposed on the grant of planning permission under Town and Country Planning.

<sup>42</sup> The references that follow are indicative and vary across countries depending on the specific legislation; but across jurisdictions, conditions and requirements serve similar functions.

<sup>43</sup> [www.gov.uk/guidance/use-of-planning-conditions](http://www.gov.uk/guidance/use-of-planning-conditions) (for DCOs, see Planning Act 2008: Content of a Development Consent Order required for Nationally Significant Infrastructure Projects).

It is important to note that there are cases when planning conditions should not be used and, in particular, they should not be used to ensure compliance with other regulatory regimes that will not meet the test of necessity and may not be relevant to planning. In such cases, the use of informatives to remind the applicant to obtain further planning approvals and other consents may be more appropriate.

In the case of DCOs, all permits, consents and permissions are contained within the DCO itself, and therefore unlike under TCPA set out above, consultation, assessment and resolution of necessary requirements will likely need to be undertaken in advance of permission at the pre-application and pre-consent phase.

### **Recording monitoring conditions, requirements and commitments**

Once the application has been submitted, the consenting authority and its stakeholders should review and evaluate the Environmental Statement, including the mitigation proposed within it or as part of an oCEMP. This should be used to form the basis of planning conditions, requirements or obligations (under a Section 106 agreement or equivalent), or contribution to the Community Infrastructure Levy, to ensure their delivery following consent. Ongoing interaction between the EIA team and these stakeholders through this process is key to ensure that mitigation identified will be delivered post-consent. The EIA coordinator should maintain a record of these discussions (potentially through updating the CEMP/EMP). It is also important to ensure that consideration is given to other existing consent regimes (e.g. Environmental Permitting) that may require/obligate particular environmental mitigation/standards to be achieved, so that duplication is avoided.

### **3.9 Mitigation for non-EIA developments**

Typically, Nationally Significant Infrastructure Projects (NSIPs) requiring DCOs and other major infrastructure projects will require EIA, however, there are TCPA applications, and also certain 'permitted development' projects – for example, for certain flood management or utility projects – where a proposed development does not require an EIA. For these projects, it may be that a non-statutory EIA or environmental assessment is carried out voluntarily, as good practice, or as part of a company policy requirement. In these cases, mitigation measures may still be required for individual factors. These should be clearly presented within the reports submitted with a planning application or when exercising a permitted development right and would benefit from following the advice set out above.

As with EIA mitigation or monitoring set out with an Environmental Statement, these should be reviewed by the determining authority, LPA, Marine Authority, Planning Inspectorate or Secretary of State (as relevant to the type of planning application and geography) and secured through planning conditions/requirements relating to the planning permission, Section 106 agreement (or equivalent) or other appropriate legal agreements.

Where a proposed development has undergone EIA screening and mitigation measures have been identified as part of this process, these measures should be captured within the technical reports submitted with the planning application, or subject to planning conditions or obligations as decided by the relevant determining authority responsible for the permission or planning application.

As in the terrestrial environment, it may simply be the case that the competent authority (i.e. Marine Directorate Licensing Operations Team in Scotland, Marine Management Organisation in England and Natural Resources Wales for Welsh consenting) screen-out the requirement for EIA.

However, some marine infrastructure projects do not require EIA despite being significant in scale, length and complexity. One driving reason for this is the current scope of the Marine Works EIA Regulations. Specifically, Schedule A1 (mandatory EIA) and Schedule A2 (projects which may constitute EIA development based on size, nature or location) exclude several forms of marine infrastructure development; examples include aggregate dredging and subsea transmission projects.

Despite the potential lack of formal EIA, it is common for the structure and approach to EIA to be adopted as part of a non-statutory Environmental Appraisal Report (EAR). This is on the basis that the EIA structure and approach is tried and tested, and given that, as part of the marine licensing process, the applicant will need to present mitigation anyway.

In these examples, it remains the case that a supporting EAR – or other similarly named and functioning documents – can be a useful repository for mitigation and post-consent commitments.

### 3.10 Relationship with other consents and licences outside of the EIA process

In addition to planning approval (or equivalent), which may be subject to certain conditions and/or requirements, development schemes may also require a number of other consents, permits or licences. These additional consents, permits and licences (see Figure 8 for examples) may not need to be gained until after development consent for the project has been gained. Identifying the need for, and timing of, such requirements within an EIA, EMS and oCEMP is an effective way of ensuring all relevant approvals are gained in a timely manner to avoid delays to the project.

For NSIPs following the DCO process, all relevant consents, permits and licences are included within the DCO process and therefore need to be in place prior to the DCO being granted. While this means more work pre-application, it is advantageous post-consent as all relevant consents and licences should be granted through the DCO.

Furthermore, a number of the consents, permits and licences set out in Figure 8 call for particular actions to be undertaken to satisfy their requirements, and the oCEMP and EMS can be used as a means to group such requirements together to ensure none are forgotten. In particular, some types of licence cannot be applied for pre-consent. For example, to secure a protected species licence (e.g. to disturb great crested newts), a proponent will submit a method statement detailing the nature, extent and timing of works. While not directly requiring an oCEMP, such a licence would be granted subject to the proposed methodology being adhered to. Again, an oCEMP would provide a useful framework to ensure such compliance measures are communicated to the site manager and construction team.

Figure 8 provides illustrative examples of other consenting, permitting and licensing regimes, in addition to planning consent, which may form the basis for actions within an oCEMP, EMP or EMS. This is a generic list, rather than a comprehensive detailed list covering all consenting regimes in England and the devolved administrations, not least because such a list would soon become outdated. Importantly, there are a number of similarities in the underlying intentions of regimes across England, Wales, Scotland and Northern Ireland, given that many are implementing mechanisms which stemmed from the same original European environmental legislation.

As noted above, in the case of DCOs all relevant consents, permits and licences should be included within the DCO process, rather than sought in addition to planning consent. In either case, should there be any degree of uncertainty it is recommended that consenting, permitting and licensing requirements are checked with competent experts and the relevant statutory agency.

It is often the case that infrastructure development will include works within the terrestrial and marine environment. Examples of such overlap are wide ranging and spread across a range of sectors such as ports and harbours, nuclear energy, coastal management and defence, offshore wind, subsea transmission and commercial redevelopment.

In terms of post-consent and mitigation specifically, it is important to strive for maximum consistency between post-consent commitments within the terrestrial and marine environments. There are several key reasons for this: to ensure outputs and outcomes for stakeholders who have an interest in both the terrestrial and marine environment are consistent; it is comparatively easier for a contractor to deliver to a single specification, often meaning higher levels of performance and compliance; it is easier for monitoring and enforcement to focus on a single specification.

Aside from the direct relationship between the terrestrial and marine environment, it is important to note that across all UK jurisdictions, there are a plethora of additional consenting requirements within the marine environment. By way of example, there is typically a requirement to undertake Habitats Regulations Assessment to consider potential effects on the National Site Network (i.e. European sites), or a developer must obtain agreement from The Crown Estate/Crown Estate Scotland as managers of the seabed. In both of these examples, there are likely to be specific post-consent requirements which sit outside of the formal EIA process.



**Figure 8: Illustrative examples of other consenting, permitting and licensing regimes<sup>44</sup>**

<b>Pollution control</b>	Environmental permits for regulated installations, waste operations or mobile plant
	Consent for discharge of polluting matter into surface waters
	Consent to discharge waste water to a sewer
	Consent to use pesticide in close proximity to a watercourse
	Consent to discharge Type I or II Listed Dangerous Substances
	Scottish Environment Protection Agency (SEPA) run-off licence
<b>Hydrology</b>	Abstraction licences
	Notification of removal of water from excavations
	Consent for works in proximity to a main river
	Consent for works affecting land drainage/flood defences
<b>Contaminated land</b>	Risk-based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment
<b>Noise/vibration</b>	Consent for development which would have an impact in terms of noise or vibration
<b>Biodiversity</b>	Licence to affect protected hedgerows or trees with Tree Preservation Orders (TPOs)
	Consent to work in a Site of Special Scientific Interest (SSSI)
	Consent to work in a SSSI that is also a Special Area of Conservation (SAC)
	Licence to affect or translocate protected species or habitats
	Further legal requirements with respect to certain species – e.g. the offence of intentionally taking, damaging or destroying the nest of any wild bird while it is in use or being built
<b>Archaeology</b>	Consent for works potentially affecting Scheduled Monuments
	Consent for works affecting an area of archaeological importance
<b>Highways</b>	Consent for closure and diversion of Public Rights of Way (PRoWs) and roads
	Consent for closure and diversion of trunk roads or motorways
	Consent for access points off a public road
	Consent for amendments to public road – e.g. installation of passing places
	Consent for abnormal load movements
<b>Waste</b>	Licence to carry waste
	Waste exemptions

<sup>44</sup> Reproduced from Box 2.3 from IEMA Practitioner: Volume 12 Best Practice Series – Environmental Management Plans (2008). Note this is illustrative only and should not be used as a guide for a real project.

# 4. Pre-consent construction phase environmental management documentation

## 4.1 Introduction

Construction projects can have significant effects on the environment and communities in which they operate. Therefore, it is important to manage impacts arising from a project effectively. There are two main ways in which developers and consenting authorities can manage these impacts: through a Code of Construction Practice (CoCP) and/or through an outline Construction Environmental Management Plan (oCEMP).

## 4.2 Definitions – CoCP and oCEMP

### Code of Construction Practice (CoCP)

A CoCP is a document that provides guidance on the approach to construction, including environmental impacts. It is a high-level document that sets out a series of measures and standards of work to be applied by a developer and its contractors throughout the construction period. CoCPs typically cover a range of factors, including construction traffic, hours of working, noise and vibration, dust and air quality, ecology and biodiversity, water management and waste management. A CoCP also includes guidance or requirements for measures to be taken to minimise negative impacts on the environment and local communities.

Local authorities and other consenting bodies may provide a CoCP for all developers and contractors to use as guidance and to set out specific rules on projects in their jurisdiction. A CoCP may also be compiled by a developer to guide any contractors that it employs on its behalf. These CoCPs include any general requirements for a construction project for that authority or developer. The CoCP is then used to inform the project-specific outline Construction Environmental Management Plan (oCEMP), if required pre-consent, and Construction Environmental Management Plan (CEMP) required before construction commences.

CoCPs may be required by planning conditions or requirements and may be prepared as part of a planning application and/or as a condition or requirement. They are particularly helpful on strategic and major projects and projects with multi-stage consenting strategies, where the detailed measures and standards of work are best left until a CEMP is prepared following consent. However, it is important to follow any consenting authority guidance which may require a CoCP for even minor developments. It is also possible that a CoCP and CEMP may both be required by planning conditions and/or requirements.

**CoCPs are generally atypical for infrastructure projects within the marine environment. The general exception to this is where there is a primarily terrestrial project, with some minor elements extending into the marine environment. An example of this could be a mixed-use development site on a tidal river (such as the Thames) with a small wharf or river wall improvement. In this case, the elements within the marine environment are a much smaller part of the wider development but could still be encompassed within the CoCP.**

### Outline CEMP (oCEMP)

Where it is agreed with the consenting authority that a CEMP is required as part of a planning application (pre-consent), then it is likely that this would be at an outline level, and the document would be referred to as an 'outline' CEMP (oCEMP). It is also worth noting that some consenting authorities refer to this simply as a Construction Management Plan (CMP), but the content and intent is the same as a CEMP and would include commentary on environmental mitigations and any environment-related additional consents required.

Typically, an oCEMP is only requested for major or complex sites, but it is dependent on the consenting authority, and so the requirement should be checked for each individual project in each location.

Where an oCEMP is required alongside an Environmental Impact Assessment (EIA), much of the mitigation information pre-consent is replicated between the two documents, so they are ideally compiled by the same author and heavily coordinated. The oCEMP is later used as the baseline to compile the (detailed) CEMP post-consent and on appointment of the contractor, which is kept as a live project document through to completion of construction.

On smaller or less-complex projects, which are also less likely to require an EIA, an oCEMP may not be required. In such cases, as part of the consent determination, a planning condition would typically be set for the applicant to submit a CEMP/CMP prior to commencing construction on site.

Another group of projects lie outside the planning system and are unlikely to require an oCEMP. These may include certain forms of permitted development or specific industries, such as:

- Highways
- Overhead transmission lines and some electricity generation schemes
- Pipelines
- Harbour works
- Forestry
- Land drainage works.

For these projects, where an oCEMP is not required for consent, developers are still advised to produce a construction strategy pre-consent, including highlighting any environmental impacts and mitigations, to allow them to plan for delivery of the works, to cost the works more accurately and to help prepare tender information for future procurement. This document would provide a clear record of the strategy but would not be submitted to any third party.

#### **4.3 Benefits of an oCEMP**

An oCEMP demonstrates the early planning of the project with important information such as an indicative construction programme, phasing diagrams and key milestones relevant to environmental assessments,

such as first occupation/use. The oCEMP should also provide a high-level description of construction methodology related to the specific site, or other constraints on the proposed development, and identify potential environmental impacts from this work. A key element is to provide reassurance that the scheme can be constructed with the local environment in mind, minimising disruption and environmental impacts at all points in the construction programme.

Given the oCEMP is likely to have been compiled prior to a construction contract award, it is usually produced by the developer or its consultants. For complex schemes, it is recommended that a specialist pre-construction consultant is involved at an early stage in the absence of an early contractor appointment. By carrying out the exercise of developing the construction strategy, programme and environmental mitigations early in the project, it helps to focus the project team on the feasibility of the later delivery. This early work can help to identify any hidden costs associated with logistics, phasing and environmental mitigations, and avoid surprises later on.

Working alongside the developer, design team, EIA consultants and planning consultants in preparation for a planning submission, the assigned consultant would compile the oCEMP. They would use any CoCP available from the relevant party/parties to describe the principles of how the project, on the specific site, would be delivered in construction.

As the procurement process to secure a contractor is typically concluded after a planning consent, the oCEMP cannot include the full detail of contractor-related items, such as: details of selected plant and equipment, predicted noise levels, actual delivery schedules, assigned waste disposal sites and recycling depots. The oCEMP provides commentary on mitigations for environmental impacts, referring to the EIA if there is one, but cannot provide detailed contractor-specific method statements beyond that already stated in the impact assessment itself or the schedule of mitigation (Environmental Management Plan/Register of Environmental Actions and Commitments).

The oCEMP needs to convince the consenting authority that the applicant understands the constraints of the site and the requirements in terms of the environment; will put in sufficient controls on the contractor; will ensure communication with all stakeholders; will deliver the project efficiently; and ultimately will complete a project that brings benefit to the local community.

As the oCEMP contains relevant information on the environmental issues for the project, as well as meeting requirements of any CoCP, and other developer requirements or 'rules' for delivery, it would be beneficial to include this document in any tender pack for procuring a contractor. This would ensure that environmental requirements are communicated to tenderers, and then appropriately identified and priced within the contract (e.g. by way of inclusion in the Employer's Requirements).

#### **Example 5: London Borough of Tower Hamlets – CoCP and working hours**

The London Borough of Tower Hamlets (LBTH) has one of the most recently implemented suites of guidance for developers of land within the borough, which includes areas such as Canary Wharf and Whitechapel. LBTH introduced a new CoCP in April 2023, along with an editable pdf-format CEMP based on the CoCP guidance.

The CoCP covers the expected factors of: site operations, highways and transport, noise and vibration, dust and air quality, contaminated land, site waste management, water pollution and flood risk, urban ecology, archaeology, built heritage and sustainability. All of these sections are brought up to date with current Greater London Authority (GLA) guidance; notably, air quality and communication and collaboration are given even greater prominence. The most significant update relates to the restriction of working hours to weekdays only (no Saturday, Sunday or Public Holiday working), and tighter restrictions on delivery hours, with no vehicle movements permitted after 16.30 on weekdays, or 15.00 in term time if there is a school near the site.

It is worth highlighting that the introduction of tighter restrictions on working hours was introduced to reduce environmental impacts on communities surrounding development sites. From an environmental impact perspective, the restrictions on working hours set by LBTH could have varying results. If a contractor works within these restrictions but with the same resources, the duration of the impacts are likely to be over a longer period. To maintain a similar programme to other areas of London (most still working without the same restrictions), the contractor may opt to use, and price for, increased resource. The magnitude of the impacts could then be greater but over a shorter period, and more expensive for the client. It is therefore important for the environmental practitioner to be aware of, and to evaluate, the requirements of each CoCP in light of each individual project to advise accurately on environmental impacts and allow the client to balance this with cost.

Providing a schedule of commitments (EMP and/or oCEMP) within the EIA and application for consent within the marine environment is a good practice, which can helpfully capture a range of valuable environmental controls in a single defined place.

A schedule of commitments, EMP and/or oCEMP can help to condense the mitigation outputs from the EIA process into a clear, digestible and accessible document. Given the wide range of internal and external bodies involved in the future delivery of infrastructure projects within the marine environment, this presents several advantages, many of which are similar to those described for the terrestrial environment.

It is often the case that a marine regulator will include a requirement for a developer to provide a CEMP via a Marine Licence condition, or similar post-consent. Given the relevance of a CEMP to multiple technical stakeholders to the marine regulator, as well as potentially being of interest to the general public and local population, the process for discharging this requirement can often be time consuming.

Because the pace of activity post-consent is often great, any opportunity to de-risk and simplify the process of approving a CEMP should be taken if possible. By including an oCEMP with an application for development within the marine environment, the developer can glean feedback from interested parties. This can provide an excellent opportunity to finalise the 'actual' CEMP, meaning it is quicker and easier to discharge post-consent.

While the strengths and opportunities of an oCEMP are notable, the weaknesses and risks need to be kept in mind. oCEMPs are often prepared by the developer or its consultants at an early point in the project life cycle (i.e. often well before the appointment of an Engineering, Procurement and Construction contractor or detailed Front End Engineering Design, etc). Practitioners need to be cautious with the inclusions within an oCEMP – much like the terrestrial environment, it is advisable to obtain independent advice regarding the feasibility of measures before they are included.

#### 4.4 Control of construction nuisance, CoCP and CEMP – overview of existing guidance

##### Existing guidance

There is guidance available on how developers should prepare CoCPs and CEMPs to control construction impacts, published by a wide range of public and private organisations. It is not the purpose of these guidelines to provide a comprehensive list or detailed review of each. However, Annex B provides an overview of the guidance available from across the UK and Northern Ireland administrative areas from public and private organisations.

##### High-level review and comparison of guidance

A large number of public bodies across the UK and Northern Ireland have published guidance (see Annex B for examples) on how to deliver sustainable construction for developments proposed within their administrative areas. The guidance available ranges from relatively short notes (sometimes comprising a single web page) that provide guidance on how to control common nuisance issues associated with construction, to lengthy documents that are typically referred to as CoCPs or guides for the preparation of CEMP.

Detailed guidance is particularly common across the London boroughs. However, our research has shown that the majority of public bodies produce some form of guidance. Therefore, it is important to check when preparing your environmental assessment documentation in support of a planning application what relevant guidance may apply to your project, to ensure this is referred to and included in environmental assessment and mitigation schedules. This will ensure that your assessment and mitigation is in compliance with the recommended control measures required by the public body, which will avoid issues and potential resubmissions of planning documentation.

Figure 9: Indicative comparison of some of the key aspects covered in selected Local Planning Authority construction guidance (web pages, notes and CoCPs)

Local Planning Authority (LPA)	General site operations	Highways and transport	Noise and vibration	Dust and air quality	Contaminated land	Site waste management	Water pollution and flood risk	Urban ecology	Archaeology, built heritage and sustainability	Liaising with the public	Protection of existing installations	Implementation, monitoring and corrective action	Light pollution
<b>London Borough of Camden</b>	X	X	Noise and vibration levels	Dust levels	X	X	X	X	X	Community liaison	X	Construction Management Plan (CMP)	X
<b>London Borough of Croydon</b>	X	X	Noise and vibration	Dust and air pollution	X	X	Drainage	X	X	X	X	Monitoring requirements	X
<b>North East Derbyshire District Council</b>	X	X	Noise	Dust	X	Waste	X	X	X	X	X	X	Lighting
<b>East Devon District Council</b>	X	Ancillary site activities	Noise and vibration	Dust and air pollution	Contaminated land	X	X	Urban ecology	X	Publicity	X	Monitoring	X
<b>London Borough of Tower Hamlets</b>	General site operations	Highways and transport	Noise and vibration	Dust and air quality	Contaminated land	Site waste management	Water pollution and flood risk	Urban ecology	Archaeology, built heritage and sustainability	Community liaison and consultation	X	Site categorisation and impact	X
<b>Warwick District Council</b>	Site operations	Highways and development traffic management	Noise and vibration	Dust and air quality	X	Waste management	X	X	X	Community liaison and communication	X	Implementation, monitoring and corrective action	X

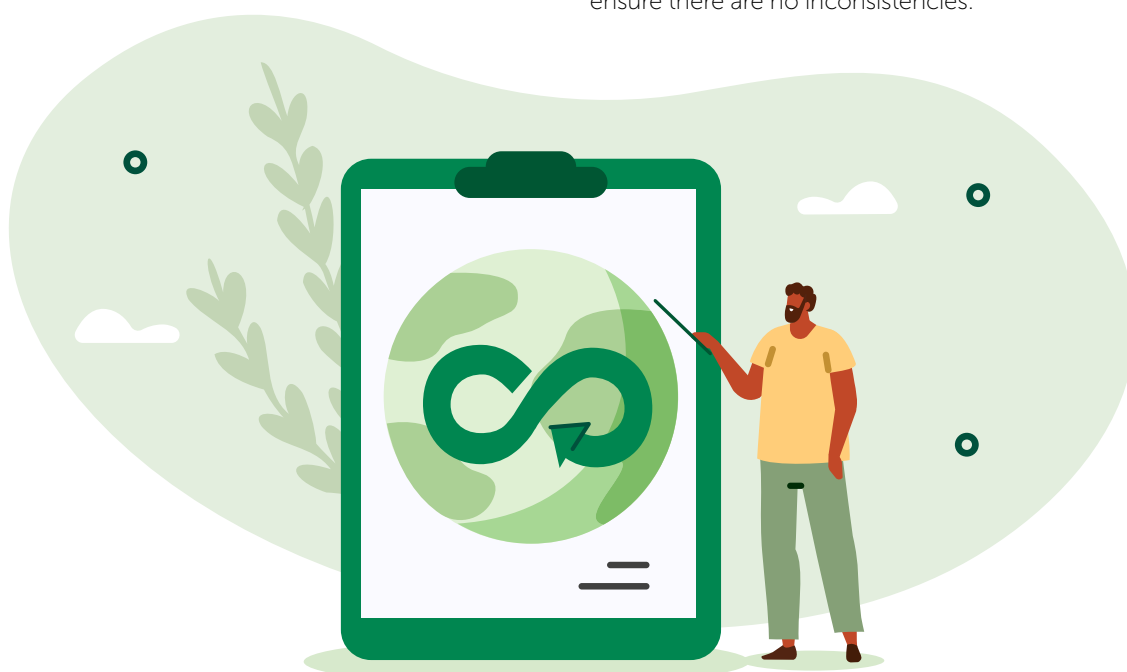
(x indicates that the aspect is not addressed in the guidance)

Figure 9 provides an indicative comparison of some of the key aspects covered in selected Local Planning Authority (LPA) construction guidance and CoCPs and how this varies between administrative areas. Annex B provides a range of examples of geographic and sector-based guidance on how to prepare a CEMP; when reviewed, it is clear that these guides vary widely.

The review has highlighted that there is a concentration of guidance available from consenting authorities in London in particular, and there is less guidance available across other administrations of the UK. It is evident that many LPAs do not provide guidance covering the full range of environmental aspects that would typically be considered in an EIA. The differences may relate to a particular LPA deciding to focus on the most important issues based on its geographic location and associated environmental receptors. This is likely to provide some explanation why some London boroughs provide guidance specifically on noise and vibration and air quality management but not on other environmental aspects covered by LPAs outside of London, such as Devon and Warwick.

In addition, there are numerous examples of more subtle differences between them – e.g. regarding the process to be followed and details such as working hours. Developers should therefore consider carefully what guidance is available and applicable early on in the process of preparing the planning application and ideally it should be referenced in the planning application scope of work. Where no consenting authority guidance is available, early engagement with the determining authority (e.g. the LPA or competent authority) is important to ensure that construction (and demolition) impacts are properly assessed and mitigated.

It is recommended that developers always consider the production of and adherence to a CoCP and oCEMP, which helps in minimising these impacts and ensures that the associated costs are accounted for in the development planning process. It is recommended that CoCPs and oCEMPs produced at a pre-planning application phase include requirements of any relevant guidance and the schedule of mitigation from any environmental assessment work as set out in Section 3 of these guidelines. Therefore, it is important that any pre-planning CoCPs and/or oCEMPs are prepared prior to the finalisation of the planning application documentation (including any associated environmental assessment) to ensure there are no inconsistencies.



### Example 6: Generic chapter headings of an oCEMP<sup>45</sup>

- 1 Introduction and contact details
- 2 The existing site – site description, site location plan and red line boundary, key site constraints
- 3 The proposed development – planning description, proposed site plan, description of the works (groundworks, substructure, superstructure, etc)
- 4 Programme of works – programme, phasing and phasing plans, key dates, potentially ‘timeslice’ snapshots of the works at specific key points of the programme
- 5 Site management – hours of work, general site management, construction workforce estimate, considerate constructors, health and safety, monitoring and inspection
- 6 Community liaison – liaison officer, dealing with complaints, cumulative impacts of neighbouring sites
- 7 Interface with key stakeholders – specific to the site but could include local highway authority, utilities providers, Environment Agency, community groups, etc
- 8 Transport – construction vehicle number estimates, management of construction traffic, site access/egress, vehicle routing to the site, management of vehicle circulation within the site, road alterations, adjustments to pedestrian and cycle routes, impacts on public transport, etc
- 9 Operation of the occupied proposed development during construction – maintaining vehicle/cycle/ pedestrian access, minimising dust and noise, visual amenity, security near hoardings
- 10 Environment – noise, vibration, dust, air quality in general, ecology (including birds, bats and existing trees), ground conditions and contamination
- 11 Materials and resource use – construction sustainability, Climate Emergency, sourcing of materials, storage, circular economy and sustainability (reduce, reuse, recycle), waste management and construction waste generation
- 12 Appendix A: CMP pro forma – if available
- 13 Appendix B: Site location plans – from architects/lead designer
- 14 Appendix C: Surveys and consents – any not already complete
- 15 Appendix D: Plant and equipment – high-level description at oCEMP stage, but full plant specification including noise levels, compliance with Non-Road Mobile Machinery standards regarding emissions, etc.

<sup>45</sup> Note this is an indicative and generic example of the contents of an oCEMP. An oCEMP should be tailored to the project, proportionate to the scale and risks being managed, should be context specific and take account of other sectoral guidance or stakeholder requests.



For CEMPs within the marine environment, a raft of individual receptor-specific controls are typically included within the overall CEMP document. By way of example, the CEMP may consider key elements of environmental management in relation to shipping and navigation or commercial fisheries alongside consideration of marine ecology and pollution control.

The receptor-specific best practice and guidance applicable to the EIA within the marine environment should be considered during the development of the CEMP, as necessary. Note that the CEMP may itself include supporting appendices or annexed controls. For example, it is commonplace for a CEMP to include an emergency spill response plan, a waste management plan and a biosecurity plan.

Consultation with relevant stakeholders may be useful for informing the content of, and approach to, the CEMP for each of these receptor-specific aspects. As explained previously, the oCEMP can be a helpful way to do this during the marine consenting process. The 'general' guidance regarding the marine licensing process should be considered during the development of a CEMP – consult the applicable guidance based on the geography relevant to a particular project: Marine Directorate Licensing Operations Team (MD-LOT) for Scottish development, Marine Management Organisation (MMO) for English development and Natural Resources Wales (NRW) for Welsh development.

It is important to note that for development within the marine environment, the complex nature of the development life cycle for major infrastructure projects will often mean that detailed information about the exact nature of proposals emerges as the project progresses. For example, it is unusual for an EPC contractor to have been appointed or for detailed design to have been completed at the time of marine consent.

For this reason, it may not be possible for a developer to provide detailed responses to all elements that the marine regulator is interested in with relation to the CEMP. On this basis, a phased approach to the delivery of the CEMP should be considered where required; in this scenario, a CEMP is split into a series of phases, with the nature and extent of detail provided being proportionate to the particular stage of the development.

By way of illustration, an early and relatively concise CEMP could be provided to the marine regulator initially, with a final, much more detailed CEMP provided following pre-construction surveys, post-detailed design/FEED and prior to the start of construction. Phases should be set so they are kept to a minimum, recognising the developmental and regulatory burden each time a 'phase' is discharged.

This demonstrated and tested approach allows for a gradual increase in the depth and focus of information provided to the marine regulator.

# Part 2: Considering mitigation – post-consent

## 5. Delivering quality development

As set out in Part 1, Section 2 of these guidelines, on the subject of the mitigation hierarchy, the consideration of mitigation should be undertaken from the earliest possible design stage at concept and feasibility. Mitigation should then be considered iteratively at all subsequent stages of design and assessment – for example, after the completion of baseline data collection and initial appraisal, after the results of modelling or analysis, and again after stakeholder engagement and public consultation. However, the consideration of mitigation does not end with the granting of consent (or planning permission) and a schedule of mitigations, requirements and conditions.

The majority of mitigation likely to be required should have already been identified and developed by competent environmental experts through interaction with the project team, consenting authority and key stakeholders in the pre-consent phase, and should be listed in the outline Construction Environmental Management Plan (oCEMP) and/or equivalent documentation such as an Environmental Management Plan (EMP)/Environmental Management System (EMS).<sup>46</sup> All key mitigations should be linked to planning and permit conditions/requirements, however the level of detail of the mitigations may not be sufficiently detailed to enable them to be implemented without further, more detailed site-specific information, such as ground conditions, construction timing, detailed design specifications and construction methods.

Ideally, the consideration of how the mitigation measures will be implemented on site will have been informed by

early engagement of the construction teams/contractors responsible for the delivery of the project, or a suitable proxy, earlier in the process. This early contractor involvement maximises the likelihood of success and cost effectiveness of mitigation and ensures the technical and financial viability of mitigation can be rigorously evaluated.

This interaction should then continue beyond the pre-consent process, through the consenting process and into the implementation phases, to ensure that mitigation is reappraised as new information becomes available. Any modifications made to the mitigation, based on such information, should maintain or enhance the environmental outcomes originally identified through the Environmental Impact Assessment (EIA) process. Continued consultation between internal and external stakeholders provides a feedback loop to monitor whether mitigation identified in the EIA is being implemented, its intended purpose is met, and any modifications are made to improve effectiveness.

To ensure that mitigation successfully moves from design (from concept, through pre-consent assessment, including early contractor involvement, then through examination, into conditions/requirements and into an oCEMP and EMP) to delivery (mitigation implementation and monitoring on site), it is crucial to successfully navigate several key action areas. Figure 10 sets out the framework of action areas for delivery of the principles to ensure that environmental mitigation identified in EIA is successfully implemented post-consent.

**Figure 10: Framework of action areas to deliver post-consent principles**

Principle	Framework of action areas			
1 Pro-active collaboration with stakeholders	A	Internal communication	External engagement	Documentation
2 Presentation	B	Specific		Visibility and mobility
3 Effective change management process	C	Ongoing involvement	Effective handover	Alterations and version control

<sup>46</sup> See Part 1, Section 3 of these guidelines.

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## 5.1 Proactive collaboration with stakeholders

### A.1 Internal communication

There should be interaction between the environmental team (terminology will differ by project, region and sector) and all members of the project team (e.g. developer, project manager, architects, engineering and environmental specialists, etc) during the post-consent planning and delivery. The environmental team should be involved in all aspects of key project planning to reduce risk and improve the likelihood of successful delivery.

There should be early ongoing interaction with the procurement team on contractor tendering and selection, and then again during the onboarding of construction teams and contractors, to ensure that mitigation measures are factored into construction costs and that the contractors have appropriate expertise for any mitigation delivery for which they are responsible.

The environmental team should be the key advisers on the project team to assist procurement and the rest of the project team in ensuring that the implementation of mitigations has been factored into the procurement and project planning. During contractor selection and negotiation, there should be early and ongoing interaction with the construction teams and contractors or their representatives during the formulation of mitigation to ensure that measures are viable and are factored into construction costs. See Section 6 of these guidelines for more guidance on contractor procurement.

In addition to a focus on the procurement of contractors, the environmental team should continue to engage with internal stakeholders to identify opportunities to avoid adverse effects or maximise benefits – for example, in the continuing design evolution to detailed and final design. In particular, the environmental team should act as advocates within the wider project team for complying with commitments made to external stakeholders and from earlier phases of the project, in addition to meeting legal requirements and conditions.

### A.2 External engagement

As with the pre-consent phase, during the post-consent phase all external engagement should be informed by sufficient project detail and the latest available information. Proactive engagement with the consenting authority and external stakeholders regarding mitigation should demonstrate to these parties how these measures are being refined, and how they will be deployed, to address potential negative environmental effects.

Where a planning or consent condition/requirement requires agreement of final mitigation methods, such as a condition requiring Local Planning Authority (LPA) sign-off of a final CEMP, it is essential to clearly explain the rationale of the final mitigation proposals, including any deviations or refinements from the oCEMP to the final CEMP. The final proposals should be evidence-based, with a high degree of certainty of the success. Where necessary, watching briefs and adaptive management measures should be in place to address any uncertainty or remaining risks and should be agreed in advance with key stakeholders and statutory advisers.

Early and open engagement can help build confidence that stakeholders' and regulators' concerns will be addressed, and the mitigation will be delivered successfully. The mitigation set out in the final CEMP should also include any enhancement measures to implement any environmental objectives committed to in the pre-consent phase, such as ecological enhancements, the creation of public rights of way and increasing access to open space.

Importantly, the final mitigation plans need to be agreed and understood by the consenting authority and key stakeholders and time should be allocated for this. It is recommended that the environmental team arranges meetings that present the mitigation proposals to the consenting authority and other external stakeholders well in advance of the start of construction to avoid any unnecessary delays in agreeing the mitigation plans and signing off any pre-construction conditions/requirements.

Early and frequent external engagement helps to speed up the discharge of conditions/requirements through: early resolution of concerns; developing understanding and agreement to mitigation/conditions in advance to avoid delays; and engendering a sense of external party ownership of the project.

### **A.3 Documentation**

All key decisions regarding mitigation from the earliest stage should be documented, detailing what was decided and the rationale behind the choices made. The recording process should be managed by the environmental team and should be undertaken on an ongoing basis to ensure the most up-to-date information is captured.

All construction-related mitigations from the EIA should be contained in the oCEMP; post-consent, these should evolve into the full and detailed CEMP. However, for a full record of key environmental decisions and commitments – which may include mitigations and conditions/requirements for the operational and decommissioning phases – these should also be recorded and maintained using an EMP, for example.

As the project progresses, it is key to review earlier decisions to ensure that a new decision does not reverse something important that was decided previously, particularly as the team members involved are likely to change as the project advances. Record-keeping is also valuable in dealing with post-consent modifications, as it clearly flags up those aspects of mitigation that have been relied on in reaching judgements and which may require reassessment if amended. An EMP, alongside other tools such as an EMS and Building Information Modelling (BIM), can play a pivotal role in documenting these items, acting as a key method of communication between consenting authorities, partnering developers, stakeholders and contractors.

## **5.2 Presentation**

### **B.1 Specific**

In the pre-consent process, the development of mitigation should have focused on the likely significant effects to ensure that mitigation is identified for these impacts. However, the EIA would have also committed to addressing many standard and non-significant effects – through primary and tertiary mitigation, for example – as a result of standard good-practice construction. Therefore, the oCEMP now needs to move from generic descriptions of mitigation measures to detailed and specific mitigation measures. This is particularly important for construction workers and contractors who will have had no involvement in or knowledge of the previous stages of assessment.

Therefore, to be effective, mitigation must be clearly accessible, understandable, practical, justified and specific. It should contain locations and timescales for implementation, indicators/measurements of success and responsibilities. The level of detail provided on mitigation will be commensurate with the stage of the development, which for construction should be highly detailed and final.

As such, construction teams should not be relying on documentation produced at planning application stage, and the Environmental Statement/oCEMP is unlikely to contain the detailed information necessary for implementation. As set out under 'A.1 Internal communication', the developers will need to work closely with the environmental team, procurement, development team and preferred contractors to build on the oCEMP to provide more detail and finalise a full and detailed CEMP.

### **Example 7: Converting oCEMP to final CEMP and discharging conditions**

The EIA might say that the traffic impacts will be reduced to minor adverse impacts through the implementation of a traffic management plan (TMP). The condition/requirement attached to the permission to secure this mitigation might be along the lines of 'the developer will provide a TMP prior to the commencement of development', which will need to be approved by the LPA in consultation with highways advisers. Therefore, it is critical that the environmental team works with the contractor to develop a detailed TMP, either as part of early contractor involvement or during the procurement process, for the following key reasons:

- The TMP needs to minimise impacts on the receptors and sensitivity identified in the EIA
- The TMP needs to be technically feasible (e.g. heavy vehicles cannot use a weight-restricted bridge)
- The TMP needs to be discussed and agreed with the LPA and highways
- Compliance with the TMP needs to be factored into the contractor's costs and methods
- The TMP needs to be agreed sufficiently in advance of works to avoid delays to works
- Monitoring methods need to be set out to indicate how adherence to the TMP will be checked, and how compliance will be enforced.

## **B.2 Visibility and mobility**

The final mitigation plans identified in the CEMP need to be visible and available to enable an understanding by all parties involved, including the applicant and their contractors (in terms of what they are responsible for implementing), consenting authority (to understand and approve – where conditioned/required – the mitigation) and external stakeholders and communities (to enable an understanding of what is being implemented).

Issues are increasingly designed out of EIA through good-practice iterative and interactive design.

To guarantee the transfer of primary mitigation, this should be clearly included in the project description and illustrated on associated plans. Secondary and tertiary mitigation should be outlined separately and clearly. To improve accessibility and clarity, use of a project website with non-technical language is encouraged to explain the CEMP.

Regular newsletters, signage on site, community liaison meetings and other communication techniques should all be used to ensure clear, frequent and transparent communication of the implementation of the CEMP for all parties. The results of audits or site inspections, particularly independent audits from Environmental Clerks of Works (EnvCoWs), should also be easily accessible and available within a short time frame after being carried out.

## **5.3 Effective change management process**

### **C.1 Ongoing involvement**

Where possible, following consent, it is recommended that the EIA coordinator responsible for the EIA for consent should maintain an ongoing involvement into the early phases of implementation to assist with the design and delivery of mitigation. If this is not possible, a handover meeting between the EIA coordinator and the new environmental team is recommended to maximise the success of the project information handover. The advantage of continued involvement of the EIA team is that they will have the most knowledge on the mitigations proposed during the EIA, and the development of the conditions/requirements and their objectives. However, the construction phase and implementation of mitigations requires some different skill sets and experience, focused more on environmental management and environmental audit experience.

Therefore, depending on their experience, the EIA team may or may not be best placed to support with the post-consent implementation. However, they are likely to add significant value in the transition between consent and construction starting, in the discharge of pre-construction conditions/requirements, and any subsequent assessments required based on changes to the project arising from the final design.

As set out above, during planning submission and during examination, the EIA coordinator should have had an ongoing involvement during the consenting process to ensure that the mitigation measures identified through the EIA are properly transferred into consent documentation and associated conditions/requirements/obligations. Similarly, post-consent, during the conversion of an oCEMP into a CEMP, and as part of the design finalisation, it will be necessary for further discussions and negotiations with consenting authorities and stakeholders. During this process, alterations to mitigation measures originally proposed may be made and should be evaluated and assessed by the post-consent environmental lead.

The post-consent environmental lead should track such alterations and feedback whether these will change the outcome reported in the Environmental Statement and other application material. If changes are identified, further iterative assessment may be required and submitted as supplementary information. The overall outcomes of the consenting process should be documented in the CEMP (and/or EMP/EMS depending on the project) to maintain an accurate record of what has been agreed.

## **C.2 Effective handover**

As stated previously, Environmental Statements can be complex, long documents. EIA coordinators need to ensure that mitigation measures are easy to locate, not only within each chapter but also in an overall single summary. As set out in Part 1 of these guidelines, an oCEMP can act as such a summary, highlighting the pre-construction and construction phase mitigation. An EMP or EMS can also be used to capture all

commitments, including those that are not related to a specific phase, or are not applicable until operational or decommissioning phases.

Where ongoing involvement of the EIA coordinator is not possible, there is a clear need to hand over environmental knowledge and responsibilities from those who led the EIA to the contractor or EnvCoW. At this juncture, it is important that the teams implementing the consent understand the purpose and rationale behind the mitigation. CEMPs and EMPs are effective tools at presenting such information by acting as a 'bridging' document between the pre-application/consenting processes and implementation phases. This handover could also be supplemented through the delivery of training or meetings.

The situation should be avoided where a contractor is required to search through large volumes of EIA and planning documentation to locate and capture mitigations. This is inefficient (as it is time consuming), inappropriate (as the contractor may not have the skills and knowledge to undertake this successfully) and risks key mitigations being missed. Missed mitigations can result in breaches of conditions/requirements, delays, fines, environmental damage and breaches of the law.

As set out in Part 1 of these guidelines, the solution to avoid this scenario is to have all mitigations captured clearly along with guidance on responsible parties, and all related conditions, requirements and commitments, in a clear set of documentation to be passed onto the post-consent phase. Where mitigations need to be subsequently refined or revised due to finalisation of design, or other changing parameters, then access to a clear design log of environmental decisions, such as an EMP or EMS, will maximise the retrieval of relevant information and minimise the risk of information loss between phases and stages of project development.

### C.3 Alterations and version control

During the implementation/construction and operational phases, there will be a need to manage any necessary alterations to the proposed mitigation as new, additional information comes to light. Such information will come from a variety of sources including consultants/contractors/construction teams, consenting authorities and key stakeholders. It will require careful version control to avoid duplication and conflicts. By maintaining the CEMP, EMP and/or EMS as a 'live' document throughout these phases, it can act as a reference point for all parties, so that any required alterations are well informed and communicated and the original intention of the mitigation is not compromised.

The situation should be avoided where interested parties and construction teams cannot find or access the information needed to implement mitigation. Likewise, it is important that incorrect or superseded information is not used, and therefore version control is critical. Again, transparent and accessible documentation is key, along with regular and clear communication to all parties.

A critical aspect of change control is where amendments to the planning permission or consent are proposed which are material in nature, and may trigger the need for an amendment, variation or supplementary consent. These kinds of material changes should trigger an environmental appraisal (and potentially additional standalone supplemental or supporting environmental reports) to accompany any change request.

In the first instance, a robust review of the proposed changes should be carried out by a competent environmental expert, with assistance from specialists and stakeholders as necessary (depending on the nature of the change) and by referring to the EIA and subsequent environmental plans and reports (CEMP, EMS, EMP, etc) to determine the potential for effects. Depending on the nature of the change, this can be either a straightforward or complex exercise and therefore should involve competent EIA experts.

The EIA experts, liaising with internal and external stakeholders, should ensure that commitments made in any variations do not undermine those already made in the main planning permission/consent. Furthermore, it is important to ensure that they maintain (or carry over) any necessary mitigation to the same level/extent as originally provided for in the main planning permission/consent. This highlights the importance of good record-keeping, registers and a consent variation log to track these changes or variations.

In particular, it is important when 'cost-saving' measures proposed during construction are not implemented within proper consideration of the environmental or legal consequences.<sup>47</sup> Contractors are often heavily incentivised to reduce costs and lack similar incentives to reduce environmental impacts. Often the cost-saving measure being proposed has already been considered (in an early phase) and was rejected based on environmental impacts (and possibly conditioned or committed to as part of stakeholder engagement), therefore all proposed variations to agreed methods should be vetted for environmental and planning compliance. See Section 6 of these guidelines for further advice on contractor procurement and management.

Akin to a health and safety 'near-miss' record, the consent variation log should include any suggested or requested variations which were ultimately rejected on environmental grounds or otherwise before even being considered by a regulator. This helps to maintain a record of decisions and promotes institutional memory and avoidance of repeated mistakes.

<sup>47</sup> It may also be the case that a minor cost saving proposed by the contractor is outweighed by the costs and delays associated with renegotiating or varying a consent that has been agreed at length with multiple parties.

# 6. Contractor procurement

## 6.1 Invitation to Tender (ITT) preparation

### Procurement team

Where there is significant environmental constraint on the project, with mitigation required, the tender team should ensure an appropriate environmental professional (preferably the project's EIA consultant, where there is one) contributes to the writing of any tender questions, attends tender interviews and scores the responses as part of the tender evaluation.

### Prequalification

Where a prequalification process is run to shortlist appropriately qualified contractors for the tender process, the contractors can be asked to provide information on their company policy and technical ability to deal with and mitigate environmental issues, sustainability and the circular economy. The prequalification should also request details of the contractors' in-house environmental expertise, or subconsultant arrangements, and approach to environmental management. This prequalification step would emphasise the importance placed by the client<sup>48</sup> on these issues and should eliminate contractors who are not willing to engage fully on these aspects, before valuable time is spent evaluating tender returns in detail.

### Contents of the tender pack – environment

It is important to transfer any knowledge already gained regarding the environment and environmental impacts of construction for a specific site from commitments made at planning submission stage through to the contractor appointment. The contractor must understand from the tender documents what has been stipulated by the planners and what they have some choice about, then price the relevant works and provide an appropriate programme for evaluation.

The tender team should work alongside the legal team writing the draft contract to include any specific contract clauses for environmental management for contractors and their suppliers. Note that often legal and commercial teams will generally want to keep contractual clauses as tightly defined as possible, so it is best to require

adherence to environmental aspects of 'Employer's Requirements' and provide as much detail as possible there, including the documents listed below.

It is recommended that during the procurement process, the following types of items are included in tender packs, highlighting the importance the client places on environmental issues.

#### 1 Outline Construction Environmental Management Plan (oCEMP) and full Environmental Statement (including mitigation chapter or equivalent).

The brief in the tender should also include any environmental objectives, targets and key performance indicators (KPIs) that will be required by the client. A schedule of permits/consents/licences that need to be obtained by the contractor for environmental items should also be enclosed as part of the scope of works.

This information allows tendering contractors to:

- Assess what is proposed at planning stage
- Propose equivalent or better outcome mitigations to suit how their organisation operates
- Cost any commitments the client may have made
- Get an early understanding of the critical issues around constructing the project.

The more comprehensive and transparent the information is that is provided to the contractors, the more accurately they can cost and resource their proposals. Failure to provide full and accurate information will likely result in environmental mitigation not being costed, resourced or programmed, leading to increased costs and delays, as well as potential litigation later.

#### 2 Constraints guidance document<sup>49</sup> – particularly if there is no oCEMP.

<sup>48</sup> In this section 'client' is used to refer to the holder of the permission or consent – for example, the developer or its representatives seeking to implement the permission. They will be the 'client' of the contractor.

<sup>49</sup> Depending on the project, the constraints guidance should draw on information contained within the Environmental Management System (EMS), draft Environmental Management Plan (EMP), mitigation summary and/or environmental studies carried out to date.



This document would have some similar content to the oCEMP but would be written to give contractors a short introduction to the key constraints to the project, site or other, that would affect their tender return. Any issues around environmental impacts could be noted here, allowing the contractor to factor in any mitigations and to price for them in their tender. It would also highlight any specific client requirements that are non-negotiable (e.g. there could be restrictions on access points to the site). The constraints guidance could include an indicative programme or target key dates, phasing plans and construction sequence. However, where possible, specific 'rules' would be kept to a minimum to encourage contractors to use the document to guide their own preferred tender response and methodology.

- 3** If appointment of the contractor is post-planning determination, issue the **draft or final planning conditions/requirements**.

The contractor should then price for developing these documents, along with any further design or investigation required for the applicant/client to submit. The discharge of pre-commencement planning conditions/requirements is often on the critical path to a start on site, so the contractor must demonstrate the time taken to assemble documents, submit them to the client for approval and submission, and then allow for statutory approval times from the planning authority within their tender programme.

- 4** Where responses to a **questionnaire** are required as part of the tender, to evaluate technical expertise and quality, at least one question should refer to the environment.

This question could be a standard question asking about dealing with site constraints, where the response would identify if the contractor has understood the site and any critical constraints, and can explain how they would manage the impacts within a successful delivery of the project. Alternatively, it could ask about the contractor's policies on sustainable construction, and seek evidence on how this was appropriately executed on their projects. Example question wording, including specific environmental constraints, is given below:

*Provide a methodology of how you would approach the following site-specific challenges for XXXX:*

- *Phased construction as part of wider masterplan*
- *Working around the listed buildings*
- *Traffic management – one-way system with restricted construction access*
- *Stakeholder engagement, including Network Rail, Transport for London and neighbouring residents*
- *Utilities management, buried obstructions and diversions*
- *Flood risk*
- *Implementing protected species mitigations and other environmental issues on a derelict site, such as invasive species*
- *Working around/with residents in situ in buildings in close proximity to the site.*

*Details must show competence, experience, and understanding of the associated risks and mitigation strategies.*

Where an oCEMP is included, a question can be included requiring the contractor to produce a detailed explanation of how they would develop the oCEMP into a full CEMP, and how they would implement the final Environmental Management Plan (EMP) in terms of their proposed methodology, approach and expertise.

## Scope of works and roles required

The Invitation to Tender (ITT) could specifically ask for the contractor to include roles such as those listed below<sup>50</sup>, noting that these responsibilities may be covered by a single person for smaller, less-complex projects, or a large team on major projects:

- Project director, project managers, construction managers and design managers with proven experience in managing their teams to protect the environment, carry out mitigations and ensure monitoring and reporting is carried out.
- Environmental strategy manager – a person who is focused on the environmental aspects of the project, constantly reviewing process and approach and liaising with internal and external parties.
- Environmental consents and assurance manager – a person who is tasked with obtaining the relevant environmental consents to allow the works to progress.
- Carbon manager and sustainability champion – a person who is responsible for specialist support around carbon targets, the circular economy and ensuring any building assessments (e.g. BREEAM, LEED) are followed through the construction stages.
- Project environmental coordinators/advisers<sup>51</sup> – people who are responsible for the daily activities around monitoring, recording results, reporting and dealing with any non-conformances and corrective action, as well as being responsible for coordinating any response to environmental incidents that may occur on site. They would also provide assurance on subcontractor responsibilities and sustainable procurement.
- Nominated subcontractor personnel – those identified from the subcontractors/key suppliers who will liaise on environmental items.
- Specialist personnel for specific monitoring or input on mitigations – for example, air quality, noise, contaminated land and ecology.

## Contractor selection and appointment

As set out in Section 5 of these guidelines, internal communication with the environmental team and early and open engagement with external stakeholders will minimise risk of delays. The client should use their own environmental team to review the contractor's credentials for managing environmental mitigations and their assumptions and costings on environmental costings. Where costings look unrealistic, or methods proposed look problematic, unfeasible or incompatible with environmental conditions/requirements, these should be raised and challenged prior to contractor appointment.

It is not unusual for contractors to lack environmental expertise and to miss out, or under-price, environmental mitigations. While this may seem like a contractual and commercial issue, it can have major ramifications for the client in terms delays, costs, legal challenges, permits, permissions and reputation. Therefore, it is imperative that the client has appropriate input and review from the environmental team to critically review all tenders prior to contractor appointment.

If a preferred contractor is strong on non-environmental costs and capability, but weak on environmental expertise or competence, consideration should be made to separate out environmental mitigation and appoint a subcontractor or additional contractor to manage the implementation of the CEMP. Regardless of the choice of contractor and their environmental expertise, it is recommended that the client retains their own environmental advisers to monitor contractor performance and compliance with both the contract, and the project commitments, conditions/requirements and legal requirements.

### 6.2 Contract terms

Following selection of the preferred contractor based on the tender evaluation, the final terms of conditions of the contract need to be agreed between the client and the contractor. In terms of environmental mitigations, this is the key point where schedules of work and the associated contract sums are agreed, and any associated programme implications.

<sup>50</sup> Terminology of roles often differs by geography and sector; the exact title is less important than the role description, responsibility and purpose. In all cases, competent individuals with appropriate experience and qualifications should be used.

<sup>51</sup> Note that the contractor should audit their own performance and compliance with their contracts, legal requirements, permits and conditions. This is separate and additional to any monitoring by an independent Environmental Clerk of Works (EnvCoW).

### Final contract review

The final contract should be further reviewed by the client's environmental team (or the designer's environmental team, where this service has been contracted) to ensure there are no gaps in scope – for example, any additional ecological surveys required in the construction phase are covered, with the appropriate specialists accounted for in the costs – prior to contract signing.

### Responsibility and tracking of contract

Responsibility matrices should be finalised clearly outlining which party is responsible for carrying out any mitigations. An outline environmental inspection and audit programme should be agreed at this point, with a detailed schedule to follow when the contractor is appointed and mobilised.

The key platforms for recording and tracking environmental mitigations, monitoring and other requirements should also be identified and agreed between parties. As well as agreeing a template for the CEMP and mitigations list, this may also include provision for items such as:

- Tracking KPIs;
- Tools for tracking progress towards green building certification
- Embodied carbon calculators
- Noise level prediction tools
- Ethical sourcing of construction materials (e.g. SEDEX, EcoVadis)
- BREEAM, LEED, WELL and Passivhaus assessment tools.

The contract should also include agreements on reporting of progress and completion of the environmental mitigations and consents required, any third-party involvement (e.g. the Environmental Health Officer from the local authority), site access and cooperation with any appointed independent Environmental Clerk of Works (EnvCoW). The reporting agreement should include the format and regularity of reporting, who receives the reports and who signs off the activities.

In addition to focusing on responsibility for carrying out mitigations, the contract should be used to identify all mandatory requirements, whether commercial, technical, or legal, and can include additional clauses on subjects such as penalties, KPIs and maintenance:

- Incentivisation mechanisms (KPIs)
- Penalty clauses (mechanisms for clawing back where mitigation is not implemented, or does not achieve required performance)
- Maintenance and management requirements (to be set out as part of a health and safety file, EMP and EMS for the operational phase).

Early in the execution of the contract, the contractor should issue the following documents in relation to environmental impacts and mitigations:

- CEMP or EMP
- Environmental inspection and audit schedule
- Tracking of status of permits/consents/licences
- Environmental data (e.g. results of monitoring)
- Progress reporting, including KPIs and noting further recommendations
- Meeting minutes from reviews of environmental data/progress.

### Types of contracts by phase

In practice (outside of design and build) there can be considered three main types of contracts, which may differ slightly in required inclusions.

#### 1 Contract between developer and designer

This type of contract is generally concerned with the production of outline design through to detailed design, submission of the Environmental Statement and achieving grant of development consent. In some cases, the designer contract may extend to support with the input to the contract ITT, review of contractors and discharge of pre-construction conditions/requirements.

## 2 Contract between developer and contractor/constructor

This is the typical contract type for the construction, which can be considered as the point at which the majority of the mitigation identified in the Environmental Statement is likely to be implemented and therefore identification, incentivisation and monitoring of mitigation through a contract is essential. If the contract with the designer has not been carried into the post-consent phase, then the handover of information from the design contract environmental lead to the contractor environmental lead is critical for continuity and successful transition between phases.

## 3 Contract between developer and operator/maintenance contractor

While there are many examples where a developer undertakes its own maintenance/operation, it is equally feasible that operation and maintenance of a development is outsourced and therefore proper contract development is a key consideration to ensure continued operation of embedded mitigation, operation phase mitigation and conditions/requirements during the development operational phase. Again, handover from the contractor environmental lead of the CEMP to the operator environmental lead for the EMS is critical for continuity and successful transition between phases.

## Key pitfalls

As set out in the introduction to this guidance, IEMA members have reported inadequate implementation of construction phase mitigations, and insufficient monitoring and enforcement of environmental conditions/requirements agreed at the assessment and consenting phase. Furthermore, our construction phase environmental managers have reported inadequate information being transferred to the construction phase teams, and often inflexible or impractical conditions/requirements or mitigation measures leading to costly and lengthy delays to the discharge of conditions/requirements, giving environmental management a negative reputation for introducing costly 'red tape'. The reason for these negative outcomes have been identified as arising from the following root causes:

- Contracts are usually (often) written without involvement of environmental specialists
- It is all too common for a contract to focus purely on the environmental qualifications of a contractor and not on setting out clearly the mandatory requirements with respect of mitigation implementation
- A contract could be misleading in that, for example, an ISO14001 certificate is provided but may only cover office-based work
- Contracts are often issued without citing the Environmental Statement as part of the associated technical documentation, leading to ambiguity as to whether a contractor is to follow the requirements of the Environmental Statement
- Responsibility of environment personnel is often poorly (if at all) defined, which can lead to lack of clarity when implementing mitigation and lack of enforcement of corrective measures
- Lack of contractual incentives or penalties for implementation (or failure) of mitigation
- Lack of maintenance consideration, meaning mitigation measures may become non-functional or degraded.

The above are often combined to increase the difficulty in implementation of mitigation.

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### Good practice recommendations

To address the shortcomings identified previously, the following good practice recommendations are made:

- Mitigation requirements within the contract to be informed by consultation with environmental specialist(s)
- Contracts to specifically cite key information such as the Environmental Statement (oCEMP, EMP, EMS) as contract information (and Environmental Statement to be included in tender documentation)
- Specialist/non-standard mitigation to be specifically listed in the contract
- Roles and responsibilities to be clearly defined, with environment personnel given contractual powers (e.g. ability to stop work or instruct changes)
- KPIs and penalties to be developed to assure environmental mitigation is delivered
- Contract to include maintenance responsibilities; consideration of a specialist maintenance contract, separate to main contract, in order to ensure continued operation of mitigation
- Consideration of fee retention to ensure maintenance/reinstatement (commonplace in some contracts).

# 7. Monitoring mitigation

## 7.1 Requirement for monitoring

The guidance presented above on the general use of planning conditions/requirements needs to be weighed against the need to comply with the Environmental Impact Assessment (EIA) Regulations, which require the determining authority to be satisfied that the significant effects of the proposed development on the environment will be mitigated, and that conditions relating to appropriate monitoring have been included. When considering monitoring conditions, the EIA Regulations state:<sup>52</sup>

- (a) If monitoring is considered to be appropriate, consider whether to make provision for potential remedial action.
- (b) Take steps to ensure that the type of parameters to be monitored and the duration of the monitoring are proportionate to the nature, location and size of the proposed development and the significance of its effects on the environment.
- (c) Consider, in order to avoid duplication of monitoring, whether any existing monitoring arrangements carried out in accordance with an obligation under the law of any part of the UK, other than under the Directive, are more appropriate than imposing a monitoring measure.

Monitoring is an integral part of the development process, allowing the project to identify the success or otherwise of the relevant mitigation or enhancement measures. All parties involved in the construction phase have a vested interest to monitor the success or otherwise of the project's environmental performance.

## 7.2 Client, developer and designer

The client or developer as proponent of the development has primary responsibility for compliance with the environmental requirements as listed in the impact assessment and planning consent. They may defer the responsibility for monitoring the success of the mitigation to their appointed delivery contractor, but they cannot defer their responsibility associated with the consent.<sup>53</sup> This is an important point which is sometimes not fully understood by all clients. Even if compliance and implementation of mitigations has been commercially contracted out to a third-party contractor, the primary

planning conditions/requirements will still be in the name of the client, and any penalties, civil or criminal sanctions will be the client's, even if they subsequently litigate against their own contractors. The exception to this rule, as set out previously, is where the contractor is responsible for obtaining secondary licences or permits (such as a run-off licence) and is the Named Person under these secondary consents. In these cases, the contractor would be the licence holder and subject to enforcement and sanctions. Therefore, it should be carefully considered which party(s) secondary consents sit under.

While it may be popular with commercial and legal teams to push liability for these secondary permits or licences onto the contractor, it should be noted that this reduces the client's control over implementation of mitigation. Environmental harm arising from failed or non-implemented mitigation can often have significant reputational impacts (along with potential for civil and criminal sanctions), therefore it is prudent for the client/developer to satisfy themselves that the contractor has successfully implemented the mitigation as identified in their Construction Environmental Management Plan (CEMP)/ Environmental Management System (EMS). Therefore, the following is essential for developers:

- Ensure that the developer has used its own environmental advisers to inform the procurement process of contractors (as set out in Section 6).
- Ensure access to competent environmental advisers reporting directly to the developer and avoid reliance purely on the contractor's environmental reporting.
- Ensure that, in addition to the contractor's own monitoring, the developers' environmental advisers are providing oversight and audit roles of the contractor's compliance.

This is often achieved by a client's environmental representative, be it an environment and consents manager or some other relevant role. Where the client lacks in-house environmental expertise, it is often efficient to retain the EIA coordinator to assist with the post-consent transition (as set out in Section 6 of these guidelines) and provide oversight of the discharge of conditions/requirements, working with the contractor's team but reporting to the client.

<sup>52</sup> For example, Section 26 (3) from The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Other EIA regulations have similar clauses.

<sup>53</sup> Some secondary consents, which often relate to specific mitigations, may be deferred to, or obtained by, the contractor. However, note this may be a significant risk to the primary consent holder if the contractor doesn't perform.

### 7.3 Contractor

While the client is responsible for compliance with the consent and associated conditions/requirements, it is likely that compliance with the consent and conditions and therefore implementing the mitigations identified in the impact assessment is a contractual responsibility for the contractor. The contractor will also be responsible for complying with secondary consents, such as those issued under the Environmental Permitting Regulations and the Water Environment (Controlled Activities) Regulations, and all other applicable environmental legislation.

The requirement to undertake environmental monitoring will likely fall on the contractor but it would be advisable for the client to specify monitoring expectations within the outline CEMP (oCEMP) and/or contract to ensure there are sufficient resources to deliver the monitoring regimes effectively. Therefore, monitoring regimes should be specified in the oCEMP or other contract documentation where relevant (see Section 6). The contractor is also responsible for monitoring their own compliance with any associated secondary consents or legislation, enabling them to provide evidence of compliance should it be required.

The contractor should be using appropriately qualified competent experts to carry out the mitigations and, as set out in Section 6, this capability should have formed part of the tender process. It is expected that for any specialist mitigations, such as archaeology or ecology, these will have been subcontracted to specialists either directly by the contractor or via the client, depending on the contract arrangements. Where these are subcontracted to the main contractor, there should be clear cooperation and liaison to ensure the successful implementation of these measures.

### 7.4 Consenting body and independent inspections

A consenting body has responsibility to ensure that the development is constructed and operated in compliance with the planning conditions, requirements and commitments arising from the impact assessment.

As such, it has a range of enforcement powers. For example, if a condition is breached, it may be able to issue notices, seek an injunction, prosecute or take direct action depending on the circumstance and the jurisdiction. However, it is widely known that many competent authorities, local authorities and regulators often lack sufficient resources to proactively monitor and inspect EIA projects in construction and operation. Therefore, there is often reliance on self-reporting by contractors and clients, or on complaints from the public. This situation has led to a lack of monitoring and enforcement and has been widely criticised,<sup>54</sup> and the UK government has recognised the need to strengthen monitoring and enforcement in its consultations on planning reforms.<sup>55</sup>

IEMA recognises that capacity, and in some cases competency, is lacking in many competent authorities and regulators to meet requirements from the scale and volume of EIA development that require oversight and monitoring. It is also consistent with the polluter pays principle that the burden created by a developer, in terms of monitoring need, should be born by the developer. However, there is a clear conflict of interest in a contractor or client self-regulating, and therefore it is essential that independent monitoring and audit is being carried out to ensure compliance with planning conditions/requirements and mitigations committed to as part of the EIA.

IEMA advocates the use of an independent monitoring resource such as an Environmental Clerk of Works (EnvCoW) to allow the consenting body to receive reports of a project's performance in a fair and transparent manner. An independent assessment of the project and its monitoring data allows the consenting body to determine whether enforcement action is required. It is recommended that the consenting authorities consider making use of the powers provided under the EIA Regulations to require any monitoring measures considered appropriate by the relevant planning authority or Secretary of State.<sup>56</sup> These monitoring measures could be conditioned to require the applicant to use an independent EnvCoW to undertake the monitoring.

<sup>54</sup> IEMA responds to government Environmental Outcomes Report (EOR) consultation; Office for Environmental Protection (OEP) environmental assessment review

<sup>55</sup> EOR: A new approach to environmental assessment.

<sup>56</sup> For example: [www.legislation.gov.uk/uksi/2017/571/regulation/29](http://www.legislation.gov.uk/uksi/2017/571/regulation/29) (information to accompany decisions 29-2-b-i-dd).

Given the potential costs arising from construction delays from non-approval of conditions/requirement, it is beneficial to all parties to have a competent and independent Environmental Clerk of Works who can engage with the development to provide timely and satisfactory oversight on assist the competent authority and regulators and thereby speed up the resolution and discharge of conditions/requirements.

### 7.5 The role of an Environmental Clerks of Works

The Association of Environmental Clerks of Works (AEnvCoW) has published a position paper setting out the role of an EnvCoW,<sup>57</sup> which is aligned to IEMA's position regarding the importance of using independent audit. This position is also shared by the Heads of Planning Scotland (HOPS) who have published<sup>58</sup> a position statement on the use of EnvCoWs. Much of the AEnvCoW position paper is reproduced below and is advocated to IEMA members.

AEnvCoW and HOPS make a strong case that the inconsistencies in role descriptions and responsibilities used across the UK, with many sectoral and geographical differences in the use of different titles and responsibilities, can add to confusion and inconsistencies in carrying out mitigation and monitoring activities.

AEnvCoW and IEMA recognise that there can be significant inconsistencies in applying the role of an EnvCoW, as those fulfilling the role are often engaged to deliver a variety, or combination, of design, implementation and environmental compliance monitoring elements. Blending these elements can compromise delivery of an EnvCoW role, which in turn can adversely affect environmental outcomes and compliance. To improve consistency and quality in the EnvCoW role (and to better support achievement of environmental outcomes/compliance), AEnvCoW and IEMA recommend an approach that advocates clear distinction, and separation, of roles and responsibilities for design, implementation and compliance monitoring, as follows:

- Design: **working for the developer/contractor:**
  - Environmental managers/advisers
  - Technical specialists

- Implementation: **working for the contractor:**
  - Environmental managers/advisers
  - Technical specialists
- Monitor: **independent monitoring of the project:**
  - EnvCoW.

Much like health and safety management under the Construction (Design and Management) Regulations 2015, IEMA and AEnvCoW believe that commissioning organisations should avoid delegating their responsibility, and each project stakeholder should provide sufficient time and resources to manage environmental risk.

AEnvCoW broadly supports the approach outlined by the Institute of Clerks of Works and Construction Inspectorate, which highlights that to achieve 'quality' and environmental 'outcomes', an EnvCoW should be either employed by an environmental regulator or a consenting body. This is because these have a vested interest in compliance and environmental outcomes. This position is similarly supported by the Planning Inspectorate, which states that compliance inspectors should be paid for by the developer and appointed by the consenting body. AEnvCoW and IEMA advocate this approach.

To provide fair, transparent compliance monitoring (which is key to the EnvCoW's role and distinguishes it from other site environmental roles), design and implementation advice should not be provided by the EnvCoW. To this end, AEnvCoW's definition of an EnvCoW is:

"An independent environmental or construction professional with direct responsibility for monitoring and reporting on compliance with planning consents, environmental permits, legislation and mitigation."

An EnvCoW cannot 'ensure' compliance on a project, as the role is responsible for monitoring and reporting compliance. EnvCoWs who consider they 'ensure' works are likely to be delivering a different environmental role with responsibility for delivering compliance.

<sup>57</sup> The Role of an Environmental Clerks of Works – position statement

<sup>58</sup> HOPS Position Statement on the Role of Environmental Clerk of Works within the Planning System



Prior to the appointment of an independent EnvCoW, the project should have approved site-specific environmental/ecological plans and mitigation proposals. It is the EnvCoW's role to impartially assess compliance against these plans and mitigation and EnvCoWs should carefully communicate compliance observations to provide a feedback mechanism for the project. AEnvCoW, HOPS and IEMA recognise that this is currently not always the case, as construction contracts and legislation do not require this. Where an EnvCoW provides design and/or implementation advice/recommendations, they risk limiting their impartiality to assess compliance.

AEnvCoW and IEMA recognise that construction contracts must support, and enable, this process. This approach is most likely to be successfully achieved with regulatory reform for environmental obligations. This would involve defining environmental roles and responsibilities for delivering/ensuring and monitoring environmental obligations in legislation, as well as requiring projects to share their data and monitoring reports.

AEnvCoW and IEMA will continue to advocate this position in legislation, and guidance, to better define and promote the role of an EnvCoW and the use of independent audit and monitoring, and help drive up environmental compliance.



# Annex A – Classifying impact assessment mitigation

Mitigation	Description
<p><b>Primary (inherent)</b></p>	<p>Modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project, and do not require additional action to be taken.</p> <p>Key principles:</p> <ul style="list-style-type: none"> <li>• Action at the top of the mitigation hierarchy, with greater ability to avoid impacts.</li> <li>• Best applied early, because they become more difficult to accommodate as the design progresses and stabilises.</li> <li>• Become a fundamental part of the design seeking consent.</li> <li>• Described in detail within the Environmental Statement project description.</li> </ul> <p>Examples include:</p> <ul style="list-style-type: none"> <li>• Reducing the height of a development to reduce visual impact.</li> <li>• Identifying a key habitat or archaeological feature that should remain unaffected by the development's layout and operation (e.g. retaining an unimproved grassland area in situ as part of an open space strategy).</li> <li>• Developing a transport strategy that reduces trips, avoiding the need for junction improvements.</li> </ul>
<p><b>Secondary (foreseeable)</b></p>	<p>Actions that will require further activity in order to achieve the anticipated outcome. These may be imposed as part of the planning consent, or through inclusion in the Environmental Statement.</p> <p>Key principles:</p> <ul style="list-style-type: none"> <li>• A flexible form of mitigation that can be proposed at any point within the EIA process, including during the decision-making process.</li> <li>• Tend to operate in the middle of the mitigation hierarchy, focusing on reducing the significance or likelihood of adverse effects.</li> <li>• While they would be integrated into the application for consent, this form of mitigation requires additional action post-consent, beyond the core function of the development, to be implemented.</li> <li>• Carry a greater risk of non-implementation or ineffective application post-consent than primary or tertiary mitigation.</li> <li>• Best managed through an Environmental Management Plan (EMP).</li> </ul> <p>Examples include:</p> <ul style="list-style-type: none"> <li>• Describing certain lighting limits, which will be subject to the submission of a detailed lighting layout as a condition of approval.</li> <li>• Providing a transport or movement framework, underpinning a Section 106 (Town and Country Planning Act 1990 (as amended)) commitment to provide public transport or limit car movements through operational planning.</li> </ul>

Mitigation	Description
<p style="text-align: center;"><b>Tertiary (inexorable)</b></p>	<p>Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.</p> <p>Key principles:</p> <ul style="list-style-type: none"> <li>• Can be identified at any point during the design and EIA process.</li> <li>• The least flexible form of mitigation – either they exist, or they do not.</li> <li>• The EIA coordinator must be confident that any tertiary mitigation identified is very likely (&gt;90%) to occur without further specific activity being undertaken within the EIA process.</li> <li>• It is helpful, but not strictly necessary, to include tertiary mitigation related to construction activities, within a draft Construction Environmental Management Plan (CEMP) or similar included in the Environmental Statement, to ensure that these actions are highlighted to the principal contractor.</li> </ul> <p>Examples include:</p> <ul style="list-style-type: none"> <li>• Applying emission controls to an industrial stack to meet the requirements of the Industrial Emissions Directive (Directive 2010/75/EU).</li> <li>• Considerate contractors' practices that manage activities which have potential nuisance effects.</li> </ul>

# Annex B – Examples of Code of Construction Practice

Examples are provided below that aim to show the wide range and different depth of guidance available:

<b>England and the Channel Islands:</b>
London Borough of Camden, <a href="#">Camden's Minimum Requirements</a>
London Borough of Croydon, <a href="#">Construction Code of Practice</a>
East Devon District Council, <a href="#">Construction Sites Code of Practice</a>
North East Derbyshire District Council, <a href="#">Nuisance During Construction Works</a>
London Borough of Tower Hamlets, <a href="#">The New Tower Hamlets 'Code of Construction Practice' 2023</a>
Warwick District Council, <a href="#">Construction Site Working</a>
Warwick District Council, <a href="#">Construction Management Plan</a>
Wigan Council, <a href="#">Guidance Note: Construction Environmental Management Plans</a>
States of Guernsey, <a href="#">Construction Environmental Management Plans</a>
<b>Wales:</b>
Transport for Wales, <a href="#">Code of Construction Practice, September 2017</a>
<b>Scotland:</b>
The City of Edinburgh Council, <a href="#">Construction Charter Commitments, August 2018</a>
The Highland Council, <a href="#">General planning guidance: Construction environmental management process for large scale projects</a>
<b>Northern Ireland:</b>
Department of Agriculture, Environment and Rural Affairs, <a href="#">Outline Construction Environmental Management Plan</a>

### Development type/sector type specific guidance:

There are also guidance documents that are published for development sectors and individual types of developments. Some examples are provided below:

NatureScot, [Guidance: Good practice during wind farm construction](#)

SNH (now NatureScot), SEPA and Scottish Renewables, [Guide to hydropower construction good practice](#)

Natural Scotland (now NatureScot) and SEPA, [Engineering in the water environment: good practice guide – River Crossings](#)

SEPA, [Engineering in the water environment: good practice guide – Temporary Construction Methods](#)

Welsh Government, [Co-ordination of road and street works: code of practice](#)

### Project specific:

It is also worth noting that individual projects of a major scale may also produce construction guidance. Some notable examples are provided below:

High Speed 2, [High Speed Rail \(London–West Midlands\) Environmental Minimum Requirements Annex 1: Code of Construction Practice](#)

North London Heat and Power, [North London Waste Authority, North London Heat and Power Project Code of Construction Practice](#)

# Further information

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## About IEMA

We are the Institute of Environmental Management and Assessment (IEMA).

We are the global professional body for over 21,000 individuals and 300 organisations working, studying or interested in the environment and sustainability.

We are the professional organisation at the centre of the sustainability agenda, connecting business and individuals across industries, sectors and borders.

We also help and support public and private sector organisations, governments and regulators to do the right thing when it comes to environment and sustainability related initiatives, challenges and opportunities. We work to influence public policy on environment and sustainability matters. We do this by drawing on the insights and experience of our members to ensure that what happens in practice influences the development of government policy, legislation, regulations and standards.

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