Design Manual for Roads and Bridges

Sustainability & Environment
Appraisal

LA 104
Environmental assessment and monitoring

(formerly HA 205/08, HD 48/08, IAN 125/15, and IAN 133/10)

Revision 1

Summary
This document sets out the requirements for environmental assessment of projects, including reporting and monitoring of significant adverse environmental effects.

Application by Overseeing Organisations
Any specific requirements for Overseeing Organisations alternative or supplementary to those given in this document are given in National Application Annexes to this document.

Feedback and Enquiries
Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated Highways England team. The email address for all enquiries and feedback is: Standards_Enquiries@highwaysengland.co.uk

This is a controlled document.

Contents

Release notes

Version	Date	Details of amendments
1	Aug 2020	Revision 1 re-published in August 2020 to correct error on DMRB website. Document was incorrectly published as revision 1 in July 2019 instead of revision 0 due to a typographical error. The DMRB website showed the document as revision 0 and so it has been updated to ensure the website matches the version of the document (revision 1). No changes have been made between first publication in July 2019 and this administrative amendment to the DMRB website. Revision 1 (July 2019) LA 104 replaces HA 205/08, HD 48/08, IAN 125/15, and IAN 133/10. The full document has been re-written to make it compliant with the new Highways England drafting rules.

Foreword

Publishing information

This document is published by Highways England.

This document updates previous environmental assessment advice contained in Volume 11 Section 2 (HA 205/08 and HD 48/08) of the DMRB, consolidates information contained in IAN 125/15 and IAN 133/10 and makes provision for requirements outlined under EU Directive 2011/92/EU as amended by 2014/52/EU 2014/52/EU [Ref 1.N].

Contractual and legal considerations

This document forms part of the works specification. It does not purport to include all the necessary provisions of a contract. Users are responsible for applying all appropriate documents applicable to their contract.

Introduction

Background

Environmental assessment is the process by which information about environmental effects is collected, assessed and used to inform decision-making. This includes Environmental Impact Assessment (EIA) and non-statutory environmental assessment.

The assessment of environmental effects, reporting of assessments and monitoring of significant adverse environmental effects, aligns with the requirements of the Directive 2011/92/EU as amended by 2014/52/EU 2014/52/EU [Ref 1.N] (hereafter referred to as the EIA Directive).

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 5.N] apply to this document.

Abbreviations

Abbreviations

Abbreviation	Definition
EAR	Environmental Assessment Report
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ES	Environmental Statement

Terms and definitions

Terms and definitions

Term	Definition
Authorities likely to be concerned by a project	Authorities or organisations (statutory or non-statutory) that have environmental responsibilities or local and regional competences (as defined by the relevant consenting regime).
Baseline scenario	A description of the current state of the environment without implementation of the project.
Competent authority	An authority that is legally responsible for discharging the requirements of the EIA Directive 2014/52/EU [Ref 1.N] via the development consenting process.
Cumulative effects	Impacts that result from incremental changes caused by other present or reasonably foreseeable actions together with the project. NOTE: For the purposes of this guidance, a cumulative impact can arise as the result of: a) the combined impact of a number of different environmental factors- specific impacts from a single project on a single receptor/resource; and/or b) the combined impact of a number of different projects within the vicinity (in combination with the environmental impact assessment project) on a single receptor/resource.
Detailed assessment	Detailed field surveys and/or quantified modelling techniques to understand complex environmental effects.
Effect	Term used to express the consequence of an impact (expressed as the 'significance of effect').
Elements	Parts of factors NOTE: For example, protected species are part of biodiversity.
Enhancement	A measure that is over and above what is required to mitigate the adverse effects of a project.
Environmental assessment	A process by which information about environmental effects is collected, assessed and used to inform decision-making. NOTE: This includes Environmental Impact Assessment and non-statutory environmental assessment.
Environmental factors	1) Population and human health; 2) Biodiversity; 3) Land, soil, water, air and climate; 4) Material assets, cultural heritage, and landscape; 5) The interaction between the factors listed above.

Terms and definitions (continued)

Term	Definition
Environmental Impact Assessment	Statutory process consisting of: 1) preparation of an Environmental Statement; 2) consultation; 3) examination by the competent authority of the information contained within the Environmental Statement; 4) the reasoned (justified or evidenced) conclusion by the competent authority on the significant effects of the project on the environment; and 5) the reasoned (justified or evidenced) decision by the competent authority to grant or refuse development consent.
Environmental Statement	A statutory report produced by the developer including: 1) a description of the project; 2) a description of the likely significant effects of the project on the environment; 3) a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment; 4) a description of the reasonable alternatives; 5) a non-technical summary; and 6) any additional information relevant to the characteristics of a project.
Embedded mitigation	Design measures which are integrated into a project for the purpose of minimising environmental effects.
Essential mitigation	Mitigation critical for the delivery of a project which can be acquired through statutory powers.
Future baseline scenario	An outline of the likely evolution of the current state of the environment without implementation of the project.
Non-statutory environmental assessment	Process consisting of: 1) preparation of an environmental assessment report; 2) examination by the Overseeing Organisation of the information contained within that report; and 3) the reasoned (justified or evidenced) decision by the Overseeing Organisation to proceed (or not) with the project.
Project	Construction works, installations, schemes, or interventions (in the natural surroundings and landscape) including those involving the extraction of mineral resources.

Terms and definitions (continued)

Term	Definition
Reasonable alternatives	Different project design, technology, location, size and scale solutions considered by the developer.
Scoping	The process of considering the information required for reaching a (reasoned) conclusion on the likely significant effects of a project on the environment.
Simple assessment	The collection and assessment of data and information that is readily available to reach an understanding of the likely environmental effects of a project. NOTE: This informs the final design or need for further 'detailed assessment'.

1. Scope

Aspects covered

1.1 The requirements and procedures set out in this document shall be followed when assessing, reporting and monitoring the environmental effects of projects in line with the requirements of the EIA Directive 2014/52/EU [Ref 1.N].

NOTE *This document does not cover the development of wider legislative, regulatory or administrative provisions under the Environmental Assessment of Plans and Programmes Directive 2001/42/EC [Ref 3.N] (also referred to as the SEA Directive) or the Habitats Directive 92/43/EEC [Ref 2.N].*

1.2 An Environmental Statement (ES) must be prepared, where screening (see LA 102 [Ref 2.I] Screening) concludes that an Environmental Impact Assessment (EIA) is necessary, in accordance with the requirements of the EIA Directive 2014/52/EU [Ref 1.N].

1.3 A non-statutory Environmental Assessment Report (EAR) shall be prepared in line with the requirements of the EIA Directive 2014/52/EU [Ref 1.N] where screening (LA 102 [Ref 2.I] Screening) concludes that an EIA is not necessary.

1.4 Monitoring of significant adverse environmental effects must be undertaken in line with the requirements of EIA Directive 2014/52/EU [Ref 1.N], where ES's conclude that there are significant adverse environmental effects.

Implementation

1.5 This document shall be implemented forthwith on all projects on motorways and all-purpose trunk roads according to the implementation requirements of GG 101 [Ref 5.N].

Use of GG 101

1.6 The requirements contained in GG 101 [Ref 5.N] shall be followed in respect of activities covered by this document.

2. Principles and purpose of environmental assessment

Integration with consent procedures and planning policy

2.1 Environmental assessment, reporting and monitoring must meet the requirements of the EIA Directive 2014/52/EU [Ref 1.N].

2.2 Environmental assessment, reporting and monitoring shall meet the requirements of the national planning policy for each relevant Overseeing Organisation.

Screening and scoping

2.3 Environmental assessment shall be informed by the outputs of screening (see LA 102 [Ref 2.I] Screening) and scoping (LA 103 [Ref 1.I] Scoping).

2.3.1 Information collated at the screening and scoping stages should provide an understanding of the environmental issues that require further assessment.

NOTE *The information outlined in this section can supplement the information already collated to inform environmental assessment.*

Assessment and consultation

2.4 Where an EIA is required in accordance with the EIA Directive 2014/52/EU [Ref 1.N], projects must ensure:

1) the public are given early and effective opportunities to participate in environmental decision-making procedures before consent is given;
2) the public are informed electronically and by public notices or by other appropriate means that an ES (and other relevant project information) is available;
3) the public are consulted for a minimum of 30 days on the ES;
4) the authorities likely to be concerned by a project are given an opportunity to express their opinion on the project before consent is given.

NOTE *For non-statutory environmental assessment, it is considered good practice to consult with affected stakeholders during the design, assessment and consenting process.*

Uncertainty

2.5 EIA, undertaken in accordance with the EIA Directive 2014/52/EU [Ref 1.N], must include:

1) a description of the main difficulties encountered in compiling the required information; and
2) the main uncertainties involved in the forecasting methods or evidence.

2.6 Non-statutory environmental assessments shall include:

1) a description of the main difficulties encountered in compiling the required information; and
2) the main uncertainties involved in the forecasting methods or evidence.

2.6.1 Reporting of uncertainty should address:

1) the availability and validity of baseline data;
2) the effect of the passage of time on the validity of data; and
3) future changes (e.g. project design) that could affect the conclusions of an environmental assessment.

NOTE 1 *The prediction of environmental effects has inherent uncertainties, which the EIA Directive 2014/52/EU [Ref 1.N] recognises.*

NOTE 2 *A level of uncertainty is acceptable provided the prediction of likely environmental effects is supported by sufficient evidence.*

Change management

2.7 A change management process shall be implemented throughout the project life cycle to record and assess design changes.

NOTE 1 The purpose of change management is to record implications for assessment conclusions and subsequent mitigation and monitoring requirements.

NOTE 2 Where changes are made, for example as a result of design change during construction, it is essential that assessment conclusions are re-assessed.

NOTE 3 Re-assessing original conclusions helps to identify the need to amend mitigation and monitoring measures as the design evolves.

2.8 Where a material change including to mitigation and monitoring is proposed post consent, the implications of this change shall be evaluated, assessed where applicable, and reported prior to their implementation.

3. Environmental assessment methodology

Assigning value

3.1 The value of receptors shall be reported within environmental assessments.

3.2 The descriptions for value (sensitivity) of receptors (as outlined in Table 3.2N), shall be applied by the project.

NOTE *Where relevant, individual environmental factors can set out variations in value description requirements.*

Table 3.2N Environmental value (sensitivity) and descriptions

Value (sensitivity) of receptor / resource	**Typical description**
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Assigning magnitude of impact

3.3 The magnitude of impacts on receptors shall be reported within environmental assessments.

3.4 The descriptions for magnitude of impact (as outlined in Table 3.4N) shall be applied by the project.

NOTE *Where relevant, individual environmental factors can set out variations in magnitude description requirements.*

Table 3.4N Magnitude of impact and typical descriptions

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Assigning significance

3.5 The significance of effects must be reported within ESs, in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

3.6 The significance of effects shall be reported within non-statutory environmental assessment reports.

3.7 The descriptions for significance (as outlined in Table 3.7) shall be applied by the project.

Table 3.7 Significance categories and typical descriptions

Significance category	Typical description
Very large	Effects at this level are material in the decision-making process.
Large	Effects at this level are likely to be material in the decision-making process.
Moderate	Effects at this level can be considered to be material decision-making factors.
Slight	Effects at this level are not material in the decision-making process.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

NOTE 1 Where relevant, individual environmental factors can set out variations in significance description requirements.

NOTE 2 The approach to assigning significance of effect relies on reasoned argument, the professional judgement of competent experts and using effective consultation to ensure the advice and views of relevant stakeholders are taken into account.

NOTE 3 *Significant effects typically comprise residual effects that are within the moderate, large or very large categories.*

3.8 The approach to deriving effects significance from receptor value and magnitude of impacts shall be based on Table 3.7 and set out in the methodology section of the environmental assessment.

3.8.1 Where Table 3.8.1 includes two significance categories, evidence should be provided to support the reporting of a single significance category.

Table 3.8.1 Significance Matrix

		Magnitude of impact (degree of change)				
		No change	**Negligible**	**Minor**	**Moderate**	**Major**
Environmental value (sensitivity)	**Very high**	Neutral	Slight	Moderate or large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligi-ble	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight

3.9 The assessment of the significance of environmental effects shall cover the following factors:

1) the receptors/resources (natural and human) which would be affected and the pathways for such effects;
2) the geographic importance, sensitivity or value of receptors/resources;
3) the duration (long or short term); permanence (permanent or temporary) and changes in significance (increase or decrease);
4) reversibility - e.g. is the change reversible or irreversible, permanent or temporary;
5) environmental and health standards (e.g. local air quality standards) being threatened; and
6) feasibility and mechanisms for delivering mitigating measures, e.g. Is there evidence of the ability to legally deliver the environmental assumptions which are the basis for the assessment?

Defining the baseline scenario

3.10 The baseline environmental conditions must be defined and described without the project in place (baseline scenario) in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

3.10.1 The baseline scenario should include a description of the site location and the surrounding area as far as environmental effects are anticipated.

3.10.2 The baseline scenario should define existing land-uses and environmental receptors/resources relevant to the environmental factor.

3.10.3 A description should be provided of the likely evolution of the current state of the environment without implementation of the project i.e. 'future baseline scenario', with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

3.10.4 When describing the future baseline scenario, readily available information such as local plans, designated site management plans and climate change scenario data should be utilised to provide a description of the natural changes in the local environment over an appropriate timescale that the datasets support.

Defining assessment years and scenarios

3.11 Effects must be assessed and reported by comparing a scenario with the project against one without the project, in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

NOTE *The scenario without the project and scenario with the project are referred to as the do-minimum and do-something scenarios respectively.*

3.11.1 The likely significant environmental effects for do-something scenarios should be assessed for the baseline year and future year, or series of future years, depending on the environmental factor.

3.12 The baseline year and future year assumptions shall be reported in the methodology section of the environmental assessment reports.

3.12.1 The baseline year should represent the conditions prior to implementation of the project, with consistency across the reporting of all environmental factors.

3.12.2 For assessing construction phase effects, the baseline year should be chosen to represent the conditions prior to construction starting.

3.12.3 For assessing operation phase effects (such as the effects of traffic on noise and air quality) the baseline year should be chosen to represent the situation prior to any effect e.g. opening the project to traffic.

3.12.4 The baseline year used for the purpose of the assessment should be as close as possible to the year in which the consenting process commences to ensure the baseline information is up to date and reflective of the current conditions.

3.12.5 Current scientific knowledge and methods of assessment should be used to identify foreseeable changes.

Defining the study area

3.13 The study area for an assessment shall be clearly defined for each environmental factor at the earliest opportunity.

3.13.1 The study area for an assessment should reflect the project and the surrounding environment over which effects are reasonably be thought to occur, taking into account cumulative effects.

3.13.2 For the assessment of cumulative effects, the spatial boundary of the receptor/resource with potential to be affected directly or indirectly should be defined.

NOTE 1 *For some projects, sensitive receptors and resources can be located beyond the immediate environs of the project e.g. through hydrological pathways.*

NOTE 2 *Consultation with relevant stakeholders can help to inform the identification of potential receptors/resources and potential significant effects, and inform the definition of the study area.*

Survey and information assembly

3.14 Survey design shall form part of the project planning process to minimise potential delays to delivery programmes.

NOTE *Certain environmental surveys are seasonal and have set 'windows' for completion.*

3.14.1 The need for time sensitive surveys should be identified as early as possible in the option choice, planning, assessment and design process.

3.14.2 Where justifiable constraints limit the scope of surveys, these should be discussed with authorities likely to be concerned by a project to determine an appropriate approach and reported appropriately.

3.15 Approval shall be sought from the Overseeing Organisation prior to approaching landowners and undertaking site visits for surveys.

NOTE *Environmental data collated during the assessment process can help populate asset databases and inform performance reporting.*

Identification of reasonable alternatives

3.16 EIA must report on the following alternatives, in accordance with the EIA Directive 2014/52/EU [Ref 1.N]:

1) technology alternatives: temporary and permanent traffic control measures;
2) design alternatives: of physical elements including structures, and landscaping;
3) size and scale alternatives: seeking opportunities to reduce the size and scale of the development where the project objectives would not be compromised;
4) demand alternatives: to meet the need through demand management techniques;
5) activity alternatives such as provision of traffic calming instead of a new road;
6) location alternatives: selection of different corridors or access routes; and as a sub-set of these main alternatives;
7) delivery alternatives: alternatives that reflect different means of delivering the desired end point in production terms, (for example, a clear span bridge or one with piers and abutments in the river);
8) scheduling alternatives: programming the activities to avoid periods of enhanced environmental sensitivity, e.g. the consideration of alternative temporary land-take during construction;
9) input alternatives: use of different materials, lighting strategies or different designs;
10) mitigation alternatives: the variety of solutions available to mitigate the adverse consequences of a proposal;
11) The 'do minimum' and 'do nothing' scenarios.

3.16.1 The level of effort applied to each of the alternative types should be proportionate to the feasibility of assessment and any benefits that assessment of an alternative can generate.

3.16.2 Evidence of the consideration of alternatives should be reported along with the reason(s) for not pursuing them.

3.17 Reporting of alternatives within EIAs shall include solution(s) that offer better environmental outcomes across objectives set by the Overseeing Organisation.

3.18 When investigating solutions that offer the best environmental outcomes across objectives set by the Overseeing Organisation, non-statutory environmental assessments shall report on the alternatives listed in 'Identification of reasonable alternatives'.

Cumulative effects

3.19 EIAs must include cumulative effects in accordance with the requirements of the EIA Directive 2014/52/EU [Ref 1.N].

3.20 Non-statutory environmental assessments shall include cumulative effects.

3.21 Environmental assessments shall assess cumulative effects which include those from:

1) a single project (e.g. numerous different effects impacting a single receptor); and
2) different projects (together with the project being assessed).

3.21.1 Cumulative effects should be assessed when the conclusions of individual environmental factor assessments have been reached and reported.

3.21.2 The assessment of cumulative effects should report on:

1) roads projects which have been confirmed for delivery over a similar timeframe;
2) other development projects with valid planning permissions or consent orders, and for which EIA is a requirement; and
3) proposals in adopted development plans with a clear identified programme for delivery.

3.22 The assessment of cumulative effects shall:

1) establish the zone of influence of the project together with other projects;
2) establish a list of projects which have the potential to result in cumulative impacts; and
3) obtain further information and detail on the list of identified projects to support further assessment.

NOTE 1 The assessment of cumulative impacts can be established through a desk study and mapping exercise, together with a review of planning/development applications and development plans.

NOTE 2 There are no defined limits or criteria for selecting the list of projects for cumulative assessment. Professional judgement using Annex III of the EIA Directive 2014/52/EU [Ref 1.N] can be applied and justification provided for developments selected (and excluded).

NOTE 3 The temporal and spatial scope, together with characteristics of the identified projects, are key considerations in identifying projects that require further assessment.

NOTE 4 The Overseeing Organisation and/or authorities likely to be concerned by a project can provide relevant advice on the scope of the assessment of cumulative effects.

Design and mitigation

3.23 Environmental assessment and design shall incorporate mitigation measures using a hierarchical system as follows:

1) avoidance and prevention: design and mitigation measures to prevent the effect (e.g. alternative design options or avoidance of environmentally sensitive sites);
2) reduction: where avoidance is not possible, then mitigation is used to lessen the magnitude or significance of effects;
3) remediation: where it is not possible to avoid or reduce a significant adverse effect, these are measures to offset the effect.

3.24 Environmental assessment shall report on the following categories of mitigation:

1) embedded mitigation: project design principles adopted to avoid or prevent adverse environmental effects; and
2) essential mitigation: measures required to reduce and if possible offset likely significant adverse environmental effects, in support of the reported significance of effects in the environmental assessment.

3.24.1 Embedded mitigation should be reported in the project description and not repeated in each environmental factor assessment.

3.24.2 Essential mitigation should be reported in relevant environmental factor assessments.

3.24.3 The Overseeing Organisation should be consulted where a different approach to reporting mitigation than that outlined above is proposed.

NOTE 1 Early identification of effects and design of mitigation measures serves to:

1) maximise the time available to projects to re-design or make design changes to 'design out' significant adverse environmental effects;
2) deliver the project in line with objectives and / or policy;
3) identify land required for mitigation enabling early dialogue with stakeholders;
4) maximise the time available to consult with authorities likely to be concerned by a project thereby ensuring mitigation is well informed and is widely accepted; and
5) minimise costs associated with mitigating effects later in the project lifecycle when design parameters are 'fixed' and therefore harder to amend.

NOTE 2 Mitigation measures can produce adverse as well as beneficial effects e.g. an environmental noise barrier can increase visual intrusion.

3.25 Significance of an effect shall be reported after an assessment of the effectiveness of the design and mitigation measures (the residual effect).

NOTE Assigning significance to an effect after an assessment of the effectiveness of the design allows for positive contribution of all mitigation that is effective, deliverable and committed.

3.26 Proposed mitigation measures shall only be taken into account when determining significance if;

1) the success of the features / measures delivering the desired outcome is supported by evidence; and
2) the project has an identified legal mechanism for implementing the features/measures.

3.27 The costs of the construction and establishment of any mitigation measures that form the basis of environmental assessment shall be included in the project budget.

NOTE The most cost effective and environmentally acceptable solutions can be delivered where potential environmental effects are given early consideration.

Environmental enhancement

3.28 Enhancement opportunities shall be reported within the environmental assessment.

3.28.1 The following items may be relevant to the design and delivery of enhancement opportunities:

1) national and local policy requirements;
2) policy and performance requirements of the Overseeing Organisation;
3) project specific objectives.

NOTE 1 Early identification of the cost of enhancement measures helps inform decision making by the Overseeing Organisation.

NOTE 2 Where essential mitigation is being delivered for other purposes, this offers an enhancement opportunity where it does not compromise the original objective of that land.

4. Reporting of environmental assessments

Good practice principles

4.1 The following principles shall be implemented as part of an environmental assessment:

1) consistent, clear presentation and referencing with little or no duplication of information.
2) coordination between environmental factors to prevent effects being overlooked or reported multiple times.
3) unbiased, impartial presentation of the assessment findings.
4) a quantified and objective approach adopted with a distinction made between fact, assumptions and professional judgement.

Environmental factors

4.2 EIA undertaken in accordance with the EIA Directive 2014/52/EU [Ref 1.N] must report against the following factors:

1) air quality;
2) cultural heritage;
3) landscape;
4) biodiversity;
5) geology and soils;
6) material assets and waste;
7) noise and vibration;
8) population and human health;
9) road drainage and the water environment;
10) climate.

4.3 Non-statutory environmental assessment shall report against the factors listed in 'Environmental factors'.

NOTE *Scoping determines the extent of reporting against each of these factors.*

4.4 When reporting against factors on the above environmental factors, the requirements of the Overseeing Organisation shall be applied.

Heat and radiation

4.5 The potential impact of heat and radiation from a project must be reported within ESs in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

NOTE *Heat and radiation is unlikely to be relevant to the scope of most motorway and all-purpose trunk road projects.*

4.6 The potential impact of heat and radiation from a project shall be reported within non-statutory environmental assessment reports.

4.7 Where heat and radiation are scoped out, evidence supporting the approach shall be outlined within the project characteristics section of the environmental assessment.

4.8 Where heat and radiation are scoped in, advice shall be sought from the Overseeing Organisation on the assessment scope and method.

Major accidents and disasters

4.9 When scoping major accidents and disasters (hereafter referred to as major events), an assessment shall be made of the following:

1) vulnerability of the project to risks of major events; and
2) any consequential changes in the predicted effects of that project on environmental factors.

4.10 Major events shall include both man-made and naturally occurring events.

NOTE There is no definition of major events within the relevant legislation.

4.10.1 When scoping major events, projects should:

1) apply professional judgement, in consultation with the Overseeing Organisation, to develop project specific definitions of major events;
2) identify any major events that are relevant to and can affect a project.
3) describe the potential for any change in the assessed significance of the project on relevant environmental factors in qualitative terms;
4) report the conclusions of this assessment within the individual environmental factors; and
5) clearly describe any assumed mitigation measures, to evidence assessment conclusions and demonstrate that likely effects have been mitigated and managed to an acceptable level.

4.10.2 Not all events warrant assessment and evidence should be provided to support the view that they are classified as major events.

4.11 Evidence supporting the approach to assessing major events shall be outlined within the project characteristics and methodology sections of the environmental assessment.

4.12 Major events shall be reported within the relevant environmental factors agreed during scoping.

Environmental statement

4.13 An ES must contain (as a minimum) the information outlined in Annex IV of the EIA Directive 2014/52/EU [Ref 1.N].

NOTE 1 The ES is a statutory reporting procedure for projects that have been identified as being likely to cause significant environmental effect(s).

NOTE 2 The aim of the ES is to:

1) fulfil statutory obligations under the EIA Regulations 2014/52/EU [Ref 1.N];
2) fulfil statutory obligations for public access to environmental information under EU Directive 2003/4/EC 2003/4/EC [Ref 4.N];
3) satisfy the Overseeing Organisation's internal communication needs and approval processes;
4) provide the public with an accessible document from which they can express their opinions;
5) provide an audit trail for decision makers;
6) provide a basis for identification and delivery of mitigation; and
7) provide a basis for monitoring, auditing and management of environmental mitigation and enhancement measures.

4.14 The specific requirements of the Overseeing Organisation shall apply to the structure of ES.

Non-technical summary

4.15 Where EIA is undertaken, a non-technical summary (NTS) must be prepared alongside the ES in accordance with the requirements of the EIA Directive 2014/52/EU [Ref 1.N].

4.16 Where an NTS is prepared, it must contain a summary of the information contained within the ES as outlined in Annex IV of the EIA Directive 2014/52/EU [Ref 1.N].

4.16.1 An NTS should highlight the principal findings of the associated ES without using technical jargon and abbreviations.

Describing the project

4.17 Environmental assessments must clearly describe the project and its characteristics in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

4.17.1 Plans and/or figures should be used to support the description of a project.

4.17.2 Temporary and permanent land use requirements should be defined when describing a project.

4.17.3 When defining a project, the physical characteristics of the development should be described, with references to their size, nature and purpose, including any requisite demolition works.

4.17.4 Where the scale or design of elements has not been fixed in a project, the parameters of the development should be defined.

4.17.5 Environmental assessments should be undertaken using a realistic 'worst case' scenario.

4.17.6 Environmental design input should be sought at the earliest stage possible to allow sufficient time to facilitate design changes and completion of further assessment as required.

NOTE 1 The definition of a 'worst case' scenario can vary between environmental factors.

NOTE 2 Approaches such as the Rochdale Envelope principle can allow environmental assessment to proceed, within a number of agreed parameters, where details of a project are broadly defined.

Non-statutory environmental assessment

4.18 The content of non-statutory environmental assessment shall be agreed through scoping LA 103 [Ref 1.I] Scoping projects for environmental assessment.

4.18.1 Non-statutory environmental assessment should provide a record of an appropriate and proportionate level of environmental assessment, as no significant environmental effects should be reported.

4.19 The specific requirements of the Overseeing Organisations shall apply for non-statutory environmental assessment.

5. Monitoring of significant adverse effects

General principles

5.1 Where ES's conclude that there are significant adverse environmental effects, projects must undertake proportionate monitoring of associated mitigation measures, in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

NOTE *The purpose of monitoring is to:*

1) *ensure measures envisaged to avoid, prevent or reduce and, if possible, offset significant adverse effects on the environment are delivered;*
2) *build data on the effectiveness of design and mitigation measures thereby driving improvement in environmental performance for future projects;*
3) *satisfy licence / permit requirements (where applicable); and*
4) *identify remedial action as a consequence of underperformance or failure of mitigation.*

5.2 The type of parameters to be monitored and the duration of the monitoring, reported within ESs, must be proportionate to the nature, location and size of the project and the significance of its effects on the environment, in accordance with the EIA Directive 2014/52/EU [Ref 1.N].

5.3 Existing monitoring arrangements which are in place as a result of other European or national legislation shall be used if appropriate to avoid any duplication of monitoring.

5.3.1 The need for environmental monitoring should be assessed throughout the lifecycle of the project from inception to the commencement of the statutory process.

5.3.2 Monitoring measures should be undertaken as required during construction, handover and through the operation and maintenance periods.

5.4 Mitigation and monitoring measures shall be identified and developed through the design and environmental assessment process and initially documented in the ES or the non-statutory EAR.

NOTE *Further environmental mitigation and monitoring requirements are set out in other documents, for example the flood risk assessment, statutory permit / licence conditions and stakeholder commitments.*

5.5 The monitoring requirements of a project shall be agreed with the Overseeing Organisation and / or competent authority, in consultation with relevant stakeholders as required.

Reporting monitoring measures

5.6 The results of monitoring shall be reported through updates of the environmental management plan (EMP) during construction and handover phases.

5.6.1 An EMP should set out the mitigation needed to manage environmental effects associated with a project and identify all necessary measures to avoid, reduce and offset a project's environmental impact and the methods for implementation.

5.6.2 An EMP should set out the statutory monitoring commitments, including the need to evaluate the monitoring, identify remedial actions and report on environmental monitoring.

5.6.3 All environmental management actions recorded in an EMP should be specific, measureable, achievable, reportable and timely (SMART).

5.6.4 Environmental management actions should include all monitoring requirements, success criteria, and specify a mechanism for reporting on progress against environmental requirements and commitments.

5.7 The EMP shall be used as a method of reporting specific monitoring and management measures post consent.

5.7.1 The EMP should be an iterative document and continually updated to reflect progress on achieving the identified actions throughout the project lifecycle and respond to any assessment assumption and design changes identified by the change management process.

Evaluation and remediation

5.8 The results and evaluation of monitoring shall be reported to the Overseeing Organisation and/or competent authority.

5.9 Any proposals for remedial action shall be discussed and agreed with the Overseeing Organisation and/or competent authority on a case by case basis.

6. Normative references

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref 1.N	2014/52/EU, 'Assessment of the effects of certain public and private projects on the environment'
Ref 2.N	92/43/EEC, 'Conservation of natural habitats and of wild fauna and flora.'
Ref 3.N	2001/42/EC, 'Directive 2001/42/EC(d) of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment'
Ref 4.N	2003/4/EC, 'Directive 2003/4/EC of the European Parliament and of the council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC.'
Ref 5.N	Highways England. GG 101, 'Introduction to the Design Manual for Roads and Bridges'

7. Informative references

The following documents are informative references for this document and provide supporting information.

Ref 1.I	Highways England. LA 103, 'Scoping projects for environmental assessment'
Ref 2.I	Highways England. LA 102, 'Screening projects for Environmental Impact Assessment'

Sustainability & Environment
Appraisal

LA 104
England National Application Annex to LA 104 Environmental assessment and monitoring

Revision 0

Summary
This National Application Annex sets out Highways England's specific requirements on environmental assessment and monitoring of projects.

Feedback and Enquiries
Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated Highways England team. The email address for all enquiries and feedback is: Standards_Enquiries@highwaysengland.co.uk

This is a controlled document.

Contents

Release notes

Version	Date	Details of amendments
0	Jul 2019	Highways England National Application Annex LA 104.

Foreword

Publishing information

This document is published by Highways England.

Contractual and legal considerations

This document forms part of the works specification. It does not purport to include all the necessary provisions of a contract. Users are responsible for applying all appropriate documents applicable to their contract.

Introduction

Background

This National Application Annex defines the Highways England specific requirements related to the environmental assessment and monitoring of projects under Directive 2011/92/EU as amended by 2014/52/EU [Ref 1.N] (hereafter referred to as the EIA Directive).

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 4.N] apply to this document.

Abbreviations

Abbreviations

Abbreviation	Definition
APFP	Applications: Prescribed Forms and Procedure NOTE: Reference to The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) [Ref 8.N]
DCO	Development Consent Order NOTE: Planning Act 2008 (as amended) Section 22 [Ref 6.N]
EIA	Environmental Impact Assessment
ES	Environmental Statement
IP EIA	Infrastructure Planning EIA
NN NPS	National Networks National Policy Statement
NSIP	Nationally Significant Infrastructure Project
PINS	Planning Inspectorate

Terms and definitions

Terns and definitions

Term	Definition
Development consent order	Consent given by a Minister for a nationally significant infrastructure project (NSIP). NOTE: This usually combines a grant of planning permission with a range of other separate consents, such as listed building consent.
Nationally significant infrastructure project	A highway-related development as defined within part III of the Planning Act 2008 (as amended) [Ref 6.N] including construction, alteration and improvement.
The Planning Inspectorate	An executive agency responsible for national infrastructure planning applications, examination of local plans and other planning-related and specialist casework in England and Wales.
Preliminary environmental information	Information required within an environmental statement which has been compiled by the applicant; and is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development). NOTE: Definition from the Infrastructure Planning (EIA) Regulations 20 17 [Ref 3.N].

E/1. Planning Act 2008 (as amended)

Principles and purpose of environmental assessment

E/1.1 Nationally significant infrastructure projects (NSIPs) require environmental assessment and shall undertake either:

1) an Environmental Impact Assessment (EIA) in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (hereafter referred to at the IP EIA Regulations) [Ref 3.N]; or
2) a non-statutory environmental assessment.

NOTE *The process of deciding whether an EIA is required for an NSIP is set out in LA 102 [Ref 1.I] Screening projects for Environmental Impact Assessment.*

E/1.2 The IP EIA Regulations [Ref 3.N] transpose the principles set out in the EIA Directive [Ref 1.N] for NSIPs, and must be applied to all NSIPs required to undertake an EIA.

E/1.3 Non-statutory environmental assessments for NSIPs shall follow the procedures set out in LA 103 [Ref 7.N] Scoping projects for environmental assessment and LA 104 [Ref 2.N] Environmental assessment and monitoring.

Reporting

E/1.4 Environmental statements and non-statutory environmental assessment reports shall report against the environmental factors outlined in E/1.

E/1.5 All NSIPs must demonstrate that the environmental assessment requirements of the national networks national policy statement (NN NPS) [Ref 5.N] have been addressed.

E/1.6 The Planning Inspectorate (PINS) has developed methodology set out in Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects [Ref 2.I] which shall be applied to all NSIP environmental assessments.

NOTE *PINS Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects can be used when undertaking the environmental assessment of NSIPs alongside this National Application Annex.*

E/1.7 All NSIPs shall ensure that any environmental management plan (EMP) is secured within the development consent order (DCO).

E/1.8 Where the change management process (refer to LA 104 [Ref 2.N] Environmental assessment and monitoring) identifies a material change, NSIPs must follow the requirements of The Infrastructure Planning (Changes to, and Revocation of, Development Consent Orders) Regulations 2011 (as amended) [Ref 9.N] in respect to environment assessment reporting.

NOTE *PINS Advice Note Sixteen: How to request a change which may be material [Ref 3.I] can be used to inform the material change process alongside this National Application Annex.*

Environmental assessment and consultation

E/1.9 All NSIPs must adhere to the consultation and publication requirements in the Planning Act 2008 (as amended) [Ref 6.N] and The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (hereafter referred to as the APFP Regulations) [Ref 8.N].

E/1.10 Where an EIA is required, the publication and notification requirements of the IP EIA Regulations [Ref 3.N] must be applied.

E/1.11 Where an EIA is required, NSIPs must publicise and consult on preliminary environmental information in accordance with the requirements of the IP EIA Regulations [Ref 3.N].

NOTE *PINS Advice Note Three: EIA Consultation and Notification [Ref 4.I] can be used when undertaking the publication, notification and consultation requirements of NSIPs alongside this National Application Annex.*

E/2. Normative References

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref 1.N	'Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment Text with EEA relevance, Official Journal L 124, 25/04/2014.'
Ref 2.N	Highways England. LA 104, 'Environmental assessment and monitoring'
Ref 3.N	'Infrastructure Planning (Environmental Impact Assessment) Regulations 2017'
Ref 4.N	Highways England. GG 101, 'Introduction to the Design Manual for Roads and Bridges'
Ref 5.N	'National Networks National Policy Statement (NN NPS)'
Ref 6.N	'Planning Act 2008 (as amended)'
Ref 7.N	Highways England. LA 103, 'Scoping projects for environmental assessment'
Ref 8.N	'The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)'
Ref 9.N	'The Infrastructure Planning (Changes to, and Revocation of, Development Consent Orders) Regulations 2011 (as amended)'

E/3. Informative References

The following documents are informative references for this document and provide supporting information.

Ref 1.I	Highways England. LA 102, 'Screening projects for Environmental Impact Assessment'
Ref 2.I	Available at: www.infrastructure.planninginspectorate.gov.uk. 'The Planning Inspectorate Advice note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure Projects '
Ref 3.I	The Planning Inspectorate Advice note sixteen: How to request a change which may be material. Available at: www.infrastructure.planninginspectorate.gov.uk. 'The Planning Inspectorate Advice note sixteen: How to request a change which may be material. Available at: www.infrastructure.planninginspectorate.gov.uk'
Ref 4.I	Available at: www.infrastructure.planninginspectorate.gov.uk. 'The Planning Inspectorate Advice Note three: EIA Notification and Consultation. '

Department for Infrastructure
An Roinn Bonneagair

Sustainability & Environment
Appraisal

LA 104
Northern Ireland National Application Annex to LA 104 Environmental assessment and monitoring

Revision 0

Summary
This National Application Annex sets out Department for Infrastructure Northern Ireland specific requirements on environmental assessment and monitoring of projects.

Feedback and Enquiries
Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated team in the Department for Infrastructure, Northern Ireland. The email address for all enquiries and feedback is: dcu@infrastructure-ni.gov.uk

This is a controlled document.

Contents

Release notes

Version	Date	Details of amendments
0	Jul 2019	Department for Infrastructure Northern Ireland National Application Annex to LA 104.

Foreword

Publishing information

This document is published by Highways England on behalf of Department for Infrastructure, Northern Ireland.

Contractual and legal considerations

This document forms part of the works specification. It does not purport to include all the necessary provisions of a contract. Users are responsible for applying all appropriate documents applicable to their contract.

Introduction

Background

This National Application Annex defines the Department for Infrastructure, Northern Ireland specific requirements related to the environmental assessment and monitoring of projects under Directive 2011/92/EU as amended by 2014/52/EU (hereafter referred to as the EIA Directive [Ref 1.N]).

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 3.N] apply to this document.

The Department for Infrastructure should be consulted regarding any Northern Ireland specific queries, relating to the Environmental Assessment process, which are not addressed in this National Application Annex.

Terms and definitions

Terms

Term	Definition
Competent authority	An authority that is legally responsible for discharging the requirements of the EIA Directive and UK Regulations via the development consenting process. NOTE: The competent authority for road works permitted under the General Permitted Development Order [Ref 5.N] is the Department.
Department	Departure for Infrastructure, Northern Ireland
Environmental Impact Assessment	Process consisting of: 1) screening, scoping and preparation of an EIA Report; 2) consultation and publication of the report and any other environmental information in accordance with the Roads (NI) Order [Ref 7.N]; 3) examination by the competent authority of the information contained within the EIA Report, and any supplementary information provided, and the results of any consultations; 4) the reasoned conclusion of the competent authority, taking into account the results of the examination referred to in point 3, and where appropriate, its own supplementary examination; and 5) the integration of that reasoned conclusion into the decision as to whether to proceed with the project.
Environmental Impact Assessment Report	In Northern Ireland an Environmental Impact Assessment Report is synonymous with Environmental Statement in other jurisdictions. Therefore any reference to Environmental Statement within the main document should be taken to mean Environmental Impact Assessment Report.

NI/1. Roads (NI) Order 1993, as amended

Environmental assessment

NI/1.1 The criteria outlined in Article 67 of the Roads (Northern Ireland) Order 1993 [Ref 7.N], as amended by the Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 [Ref 6.N], shall be used to determine if EIA is required.

NOTE *This includes screening, scoping, Environmental Impact Assessment and non-statutory environmental assessment.*

NI/1.2 Where it is determined that an Environmental Impact Assessment (EIA) is required, it shall be developed, produced and implemented to meet the requirements of the Roads (Northern Ireland) Order 1993 [Ref 7.N], as amended.

NI/1.3 Non-statutory environmental assessments shall follow the principles and procedures set out in LA 103 [Ref 4.N] Scoping projects for environmental assessment and LA 104 [Ref 2.N] Environmental assessment and monitoring.

NI/2. Normative References

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref 1.N	EIA Directive, 'Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment'
Ref 2.N	Highways England. LA 104, 'Environmental assessment and monitoring'
Ref 3.N	Highways England. GG 101, 'Introduction to the Design Manual for Roads and Bridges'
Ref 4.N	Highways England. LA 103, 'Scoping projects for environmental assessment'
Ref 5.N	legislation.gov.uk. 'The Planning (General Permitted Development) Order (Northern Ireland) 2015'
Ref 6.N	legislation.gov.uk. 'The Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2017'
Ref 7.N	legislation.gov.uk. 'The Roads (Northern Ireland) Order 1993 (as amended)'

Sustainability & Environment
Appraisal

LA 104
Scotland National Application Annex to LA 104 Environmental assessment and monitoring

Revision 0

Summary
This National Application Annex sets out the Transport Scotland specific requirements on the environmental assessment of projects including reporting and monitoring of significant adverse environmental effects in line with Directive 2011/92/EU as amended by 2014/52/EU.

Feedback and Enquiries
Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated Transport Scotland team. The email address for all enquiries and feedback is: TSStandardsBranch@transport.gov.scot

This is a controlled document.

Contents

Release notes

Version	Date	Details of amendments
0	Jul 2019	Transport Scotland National Application Annex to LA 104.

Foreword

Publishing information

This document is published by Highways England on behalf of Transport Scotland.

Contractual and legal considerations

This document forms part of the works specification. It does not purport to include all the necessary provisions of a contract. Users are responsible for applying all appropriate documents applicable to their contract.

Introduction

Background

This National Application Annex gives the Transport Scotland-specific requirements related to the environmental assessment of projects including reporting and monitoring of significant adverse environmental effects in line with Directive 2011/92/EU as amended by 2014/52/EU (EIA Directive [Ref 1.N])

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 2.N] apply to this document.

S/1. Environmental assessment methodology

S/1.1 Significance of an effect shall be reported including embedded mitigation measures.

S/1.2 Residual effects shall be reported after assessment of the effectiveness of essential mitigation measures required to reduce and, if possible, offset likely significant adverse environmental effects.

NOTE *Assigning significance of an effect, taking account of embedded mitigation, and again after an assessment of the effectiveness of essential mitigation demonstrates the positive contribution of all committed mitigation.*

S/2. Normative References

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref 1.N	EIA Directive, 'Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment'
Ref 2.N	Highways England. GG 101, 'Introduction to the Design Manual for Roads and Bridges'

Llywodraeth Cymru
Welsh Government

Sustainability & Environment
Appraisal

LA 104
Wales National Application Annex to LA 104 Environmental assessment and monitoring

(formerly IAN (W) 125/09)

Revision 0

Summary
This National Application Annex sets out the Welsh Government's specific requirements on the environmental assessment of projects including reporting and monitoring of significant adverse environmental effects in line with Directive 2011/92/EU as amended by 2014/52/EU for projects under the Highways Act 1980.

Feedback and Enquiries
Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated Welsh Government team. The email address for all enquiries and feedback is: CustomerHelp@wales.gsi.gov.uk

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Contents

Release notes

Version	Date	Details of amendments
0	Jul 2019	Welsh Government National Application Annex to LA 104.

Foreword

Publishing information

This document is published by Highways England on behalf of Welsh Government.

This document supersedes previous Welsh advice contained in IAN (W) 125/09 (Supplementary Guidance for the users of Design Manual for Roads and Bridge (DMRB) Volume 11 Environmental Assessment).

Contractual and legal considerations

This document forms part of the works specification. It does not purport to include all the necessary provisions of a contract. Users are responsible for applying all appropriate documents applicable to their contract.

Introduction

Background

This National Application Annex gives the Welsh Government-specific requirements on the environmental assessment of projects including reporting and monitoring of significant adverse environmental effects in line with Directive 2011/92/EU [Ref 1.N] as amended by 2014/52/EU (herein after referred to as the EIA Directive [Ref 2.N]) under the Highways Act 1980.

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 6.N] apply to this document.

Terms and definitions

Terms and definitions

Term	Definition
Consultation bodies	Consultation bodies are those likely to be concerned by the projects, including NRW, CADW and relevant local authorities or National Park Authority, or their successors; and the relevant Trunk Road Agents or their successors.
Project authority	Welsh Ministers as defined by the Highways Act 1980 as amended Act CHAPTER 66 [Ref 4.N]

W/1. Environmental assessment and monitoring under the Highways Act 1980 (as amended)

Principles and purpose of environmental assessment

W/1.1 Environmental assessment, reporting and monitoring shall meet the requirements of the:

1) EIA Directive [Ref 2.N];
2) Highways Act, 1980 (as amended) [Ref 5.N] ; and,
3) Planning Policy Wales, Edition 9 [Ref 7.N] or its successor.

NOTE *Highways Act, 1980 (as amended) [Ref 5.N] includes The Environmental Impact Assessment (Miscellaneous Amendments Relating to Harbours, Highways and Transport) Regulations 2017 [Ref 9.N].*

W/1.2 Where a material change to mitigation and monitoring is proposed post consent, the implications of this change shall be evaluated and assessed against the Environmental Statement conclusions and other relevant assessments.

W/1.2.1 The project authority should be consulted on any consequential change to mitigation and monitoring prior to implementation.

Environmental assessment methodology

W/1.3 The assessment of cumulative effects shall adhere to the requirements of LA 104 [Ref 3.N] Environmental assessment and monitoring.

W/1.3.1 The assessment of cumulative effects should report on:

1) roads projects which have been confirmed for delivery over a similar time-frame;
2) other development projects with valid planning permissions or consent orders, and for which EIA is a requirement;
3) proposals in adopted development plans with a clear identified program for delivery;
4) the likely effect of areas of land in adopted development plans highlighted for development.

W/1.4 Significance of an effect shall be reported before and after an assessment of the effectiveness of the design and mitigation measures.

NOTE 1 *The residual effect is the significance after mitigation is applied.*

NOTE 2 *Assigning significance to an effect after an assessment of the effectiveness of the design allows for positive contribution of all mitigation that is effective, deliverable and committed.*

W/1.5 The costs of the construction and establishment of any mitigation measures that form the basis of environmental assessment shall be included in the project budget.

NOTE *The most cost effective and environmentally acceptable solutions can be delivered where potential environmental effects are given early consideration.*

Reporting of environmental assessments

W/1.6 The environmental factors of land and health in the EIA Directive [Ref 2.N] shall be assessed and reported in accordance with LA 112 [Ref 8.N] Population and human health.

W/1.7 The assessment of major accidents and disasters shall assess previous major accidents and disasters in the study area as part of the baseline.

W/1.8 The ES and non-statutory environmental assessment report shall detail how the process has been carried out so that the sustainable development principles as described in the Well-Being of Future Generations Act (Wales) 2015 [Ref 10.N] have been taken into account.

W/1.9 The ES must contain the information outlined in Annex IV of the EIA Directive [Ref 2.N] .

W/1.10 The ES shall contain the following information:

1) the legal basis for the ES;
2) the originator of the ES;
3) purpose of the ES;
4) scope and content of the ES;
5) project history;
6) project objectives;
7) the reasons for the project, including existing problems;
8) an environmental constraints map;
9) the policy context;
10) related draft orders under the Highways Act, 1980 (as amended) [Ref 5.N]; if relevant;
11) consultations up to the publication of the ES;
12) details of other related assessment reports, if relevant, and how they can be accessed;
13) details of how and where the ES can be viewed/obtained;
14) details of how the public and consultation bodies can comment on the ES;
15) the publication date of the ES;
16) details of the time period within which comments on the ES can be made;
17) details of how to make comments;
18) details of any material available and where it can be found, outside of the ES which would support the understanding of project and the ES (e.g.: digital media, visual models etc).

W/1.11 The contents of a non-statutory environmental assessment report shall be based on the contents of the ES.

W/1.12 The structure of an ES shall contain the following:

1) introduction;
2) the project - including links to earlier assessments;
3) alternatives considered;
4) links to relevant policies;
5) EIA methodologies;
6) information relating to the assessment of the environmental factors;
7) assessment of culmulative effects;
8) opportunities for enhancement;
9) environmental management plan;
10) monitoring proposals;
11) conclusions;
12) references;
13) glossary/abbreviations;
14) technical reports supporting the assessment;
15) plans which support the understanding of the assessment;
16) environmental master plans;
17) a copy of the non-technical summary.

W/1.13 The structure of a non-statutory environmental assessment report shall be based on the structure of an ES.

W/1.14 The non-technical summary shall be bi-lingual, Welsh and English.

W/1.15 Arrangements for the publication of the ES/non-statutory environmental assessment report and related notices shall be agreed with the Overseeing Organisation.

W/1.16 The ES/non-statutory environmental assessment report shall be made available to inform the consent decision, and any other relevant information from the Overseeing Organisation.

Monitoring of significant adverse effects

W/1.17 Where the ES concludes that there are significant adverse environmental effects after mitigation, projects must in accordance the EIA Directive [Ref 2.N] undertake proportionate monitoring of associated mitigation measures.

W/1.17.1 Proportionate monitoring of construction and operational activities should be undertaken to identify unforeseen significant adverse effects.

W/1.18 Monitoring requirements shall include proposals to define an appropriate definition of the success of the mitigation proposals.

W/1.19 The results of monitoring shall be evaluated against the definition of success.

W/2. Normative References

The following documents, in whole or in part, are normative references for this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Ref 1.N	'Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014'
Ref 2.N	EIA Directive, 'Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment'
Ref 3.N	Highways England. LA 104, 'Environmental assessment and monitoring'
Ref 4.N	The National Archives. legislation.gov.uk. Act CHAPTER 66, 'Highways Act 1980'
Ref 5.N	Highways Act, 1980 (as amended), 'Highways Act, 1980 (as amended)'
Ref 6.N	Highways England. GG 101, 'Introduction to the Design Manual for Roads and Bridges'
Ref 7.N	Welsh Government. Planning Policy Wales, Edition 9, 'Planning Policy Wales, Edition 9'
Ref 8.N	Highways England. LA 112, 'Population and human health'
Ref 9.N	'The Environmental Impact Assessment (Miscellaneous Amendments Relating to Harbours, Highways and Transport) Regulations 2017' , 2017/1070
Ref 10.N	'Well-being of Future Generations (Wales) Act 2015'