

Design Manual for Roads and Bridges



Sustainability & Environment
Appraisal

LA 120

Environmental management plans

(formerly IAN 183/14 Environmental Management Plans, IAN 183/16 (W) Environmental Management Plans)

Revision 1

Summary

This document sets out the requirements for the preparation and implementation of environmental management plans for construction of highways and/or roads projects.

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.

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Release notes

Version	Date	Details of amendments
1	Mar 2020	Revision 1 (March 2020) Update to references only. Revision 0 (November 2019) LA 120 replaces IAN 183/14 and IAN 183/16 (W). This 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 supersedes IAN 183/14 Environmental Management Plans and IAN 183/16 (W) Environmental Management Plans, which are withdrawn.

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 document provides a framework to manage the environmental effects of projects to demonstrate compliance with environmental legislation, by providing a plan for the delivery of the project's design, mitigation, enhancement and monitoring commitments.

The development of this document has been influenced by:

- 1) Environmental management systems - Requirements with guidance for use BS EN ISO 14001 [Ref 2.I]; and
- 2) Environmental Impact Assessment Guide to: Delivering Quality Development (IEMA, 2016) EIAG DQD [Ref 1.I].

Assumptions made in the preparation of this document

The assumptions made in GG 101 [Ref 3.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

Term	Definition
Competent authority	An authority that is legally responsible for discharging the requirements of the 2014/52/EU [Ref 1.N] via the development consenting process.
Competent expert	Individuals who can demonstrate that they have relevant: <ol style="list-style-type: none"> 1) qualifications (e.g. education and training); and 2) expertise in environmental management.
Environmental management plan	A document (or set of documents) that sets out the mitigation needed to manage environmental effects associated with a development during the construction and operational phases EIAG DQD [Ref 1.].
Lifecycle stage	Design, construction or operation stage of a project.

1. Scope

Aspects covered

1.1 An environmental management plan (EMP) shall set out the conclusions and the actions needed to manage environmental effects identified within the environmental assessment during construction and operation of a development.

1.1.1 EMPs should be prepared for all projects, including for the management and operation of the existing network.

NOTE The EMP establishes a suitable mechanism to link assessment assumptions, planning conditions and obligations.

1.2 In accordance with LA 104 [Ref 2.N], the results of monitoring shall be used to update the EMP during the construction and handover stage.

Implementation

1.3 This document shall be implemented forthwith on all projects on the Overseeing Organisations' motorway and all-purpose trunk roads according to the implementation requirements of GG 101 [Ref 3.N].

Use of GG 101

1.4 The requirements contained in GG 101 [Ref 3.N] shall be followed in respect of activities covered by this document.

2. Environmental management plans

Purpose of the environmental management plan

- 2.1 The EMP shall provide clear and concise information which states how the mitigation and management of environmental effects will be delivered and maintained.

Environmental management plan programme

- 2.2 The EMP shall set out the control of environmental effects through all lifecycle stages from the design stage in accordance with Table 2.2 and Appendix A.

Table 2.2 Delivery schedule and updates of the EMP

Project stage	EMP iteration	Produced / refined
Design	First iteration of EMP (formerly outline EMP) produced during the design stage for the preferred option.	Produced
Construction (refined for the consented project)	Second iteration of EMP (formerly construction EMP) refined during the construction stage for the consented project, in advance of construction.	Refined
End of construction	Third iteration of EMP (formerly handover EMP) building on the construction EMP refined at the end of the construction stage to support future management and operation.	Refined

- 2.3 The EMP shall be refined and updated when additional information comes to light to capture any necessary alterations to the proposed mitigation and management of environmental effects.

NOTE Such additional information or alterations can include:

- 1) new or updated survey data;
- 2) changes in the physical characteristics of the project;
- 3) changes in the design and mitigation assumptions;
- 4) changes in the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability);
- 5) changes in legislation, policy and guidance/advice relating to any environmental topic; and
- 6) changes response to stakeholder consultation.

Environmental management plan preparation, structure and content

- 2.4 EMPs shall be prepared and authorised by competent experts.

2.5 The EMP shall:

- 1) provide a clear audit trail outlining the modifications made from any previous iteration;
- 2) identify roles and responsibilities;
- 3) identify risks, their associated control measures, compliance and corrective actions; and
- 4) establish procedures for communication, monitoring, audit mechanisms and reporting of control measures.

- 2.5.1 Control measures should include a date of completion.

- 2.6 The EMP shall report on the factors outlined in LA 104 [Ref 2.N].

- 2.6.1 The EMP should be consistent with the information provided within other environmental reports e.g. environmental assessment report / environmental statement.
- 2.7 The EMP shall provide sufficient and proportionate level of detail on the measures to mitigate and manage the environmental effects.
- 2.8 The EMP shall include a register of environmental actions and commitments including:
- 1) clear and specific description of the action;
 - 2) the objective of the action;
 - 3) how the action is to be implemented/achieved;
 - 4) the source of the action, including references for source documentation e.g. environmental statement;
 - 5) naming of the person responsible for the action;
 - 6) achievement criteria and reporting requirements;
 - 7) the project stage, date of implementation and achievement; and
 - 8) details of any monitoring required and corrective action.
- 2.9 The EMP shall include details of induction, training and briefing.
- 2.10 EMPs shall include:
- 1) a description of the main difficulties encountered in delivery of measures to mitigate and manage the environmental effects; and
 - 2) the main uncertainties involved in the forecasting of measures to mitigate and manage the environmental effects.

3. 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, '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'

4. Informative references

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

Ref 1.I	IEMA, July 2016. EIAG DQD, 'Environmental Impact Assessment Guide to: Delivering Quality Development'
Ref 2.I	BSI Standards Publication. BS EN ISO 14001, 'Environmental management systems — Requirements with guidance for use'
Ref 3.I	Highways England. LD 117, 'Landscape design'

Appendix A. Environmental management plan structure

Table A.1 EMP content and structure - First iteration (design stage)

Responsibility for document production	Designer
1. Introduction & background to project	
1.1 Purpose of the report	Produced at this stage to include a brief description of the purpose of the EMP.
1.2 The project	Produced at this stage to include: <ul style="list-style-type: none"> 1) project name; 2) location; 3) programme; 4) why it is needed; and brief outline of proposed works.
1.3 Project objectives	Produced at this stage to include a brief outline of the project objectives (aligning with the objectives set out in the environmental assessment report / environmental statement). NOTE: Project objectives to align with the requirements in LD 117 [Ref 3.I]
2. Project team roles and responsibilities	
	Produced at this stage to include: <ul style="list-style-type: none"> 1) competent expert statements; 2) roles involved in the delivery of the EMP; 3) responsibilities; and 4) organisations involved.
3. Environmental actions and commitments	

Table A.1 EMP content and structure - First iteration (design stage) (continued)

	<p>Produced at this stage (in table format) to include:</p> <ol style="list-style-type: none"> 1) clear and specific description of the action/commitment, including the specific location; 2) the assumptions on which the action is based; 3) the objective of the action, including alignment with those set out in Section 1.3. Reference to relevant legislation requirements; 4) how the action is to be implemented/ achieved, including details of risk management; 5) the source of the action (e.g. EAR/ES, Habitat Regulations assessment, Equality Impact Assessment, Traffic Management Plan) including confirmation of commitments agreed with stakeholders; 6) name of the person responsible for the action; 7) achievement criteria; 8) the anticipated project stage, date of implementation or achievement; and 9) details of any monitoring required (including in relation to likely significant adverse effects). Note: Include reference to mitigation commitments relied on within the EIA screening (determination).
<p>4. Consents and permissions</p>	
	<p>Produced at this stage to include summary of anticipated consents / permissions required to deliver the EMP.</p>
<p>5. Environmental asset data and as built drawings</p>	
	<p>Produced at this stage to include:</p> <ol style="list-style-type: none"> 1) confirmation of submission arrangements for providing as built drawings and environmental asset data to the Overseeing Organisation; 2) species surveys obtained until this point.
<p>6. Details of maintenance and EMP monitoring activities</p>	
	<p>Produced at this stage to include a brief description of maintenance and EMP monitoring activities.</p>
<p>7. Induction, training and briefing procedures for staff</p>	

Table A.1 EMP content and structure - First iteration (design stage) (continued)

	Produced at this stage to include: 1) brief description of induction, training and briefing procedures for staff; and 2) criteria for evaluation of training effectiveness.
8. References and glossary	
9. Annexes	
Annex A: Constraints map	Produced at this stage
Annex B: Relevant management plans	Produced at this stage where commitments have been made to produce specific management plans in outline format.
Annex C: Environmental method statements	Produced at this stage where commitments have been made to produce specific management plans in outline format, including relevant method statements where commitments have been made to do so.
Annex D: Emergency procedures and record of any environmental incidents	Produced at this stage to provide a brief description of emergency procedures and environmental incident record management.
Annex E: Copy of evaluation of change register	Produced at this stage to provide a brief description of evaluation of change register
Annex F: Final environmental investigation and monitoring reports	Produced at this stage to provide a brief description environmental investigation and monitoring.

Table A.2 EMP content and structure - Second iteration (construction stage)

Responsibility for document production	Contractor
1. Introduction & background to project	
1.1 Purpose of the report	This section is refined to reflect the purpose of the EMP at this stage within the project lifecycle.
1.2 The project	Refined, where applicable, in response to the statutory process stage and changes in actions.
1.3 Project objectives	n/a – no amendment anticipated.
2. Project team roles and responsibilities	
	Refined at this stage to include: 1) name and contact details (primary and secondary) for each role; and 2) lines of escalation.
3. Environmental actions and commitments	

Table A.2 EMP content and structure - Second iteration (construction stage) (continued)

	<p>Refined at this stage to include:</p> <ol style="list-style-type: none"> 1) update existing actions / identify new actions in response to the circumstances listed in the Table 1: Advisory notes; 2) define precise monitoring arrangements, including the monitoring parameters, persons involved, thresholds for remedial action and a remedial action strategy; 3) provide date and signature for completed action/commitments.
4. Consents and permissions	
	<p>Refined at this stage to record:</p> <ol style="list-style-type: none"> 1) relevant consents; and, 2) permissions from statutory bodies
5. Environmental asset data and as built drawings	
	<p>Refined at this stage to include the relevant data as specified in the design stage EMP.</p>
6. Details of maintenance and EMP monitoring activities	
	<p>Refined at this stage to include:</p> <ol style="list-style-type: none"> 1) procedures for monitoring and reviewing compliance including inspection/audit frequency and reporting; 2) assessment criteria to identify success; and procedures for rectification of breaching or failings of EMP measures.
7. Induction, training and briefing procedures for staff	
	<p>Refined at this stage to include:</p> <ol style="list-style-type: none"> 1) a summary of the environmental aspects of the project; 2) awareness of EMP contents; 3) a site induction; and 4) on-site training.
8. References and glossary	
9. Annexes	
Annex A: Constraints map	<p>Refined, where applicable, in response to the statutory process stage and changes in actions.</p>

Table A.2 EMP content and structure - Second iteration (construction stage) (continued)

Annex B: Relevant management plans	Produced or refined, as applicable, in response to the statutory process stage and changes in actions. Plans include: 1) Site waste management plan; 2) Drainage management plan; 3) Materials management plan; 4) Project asbestos management plan; and 5) any other required.
Annex C: Environmental method statements	Produced or refined, as applicable, in response to the statutory process stage and changes in actions
Annex D: Emergency procedures and record of any environmental incidents	Refined at this stage to include: 1) confirmation of procedures in the event of an environmental emergency. A record of environmental incidents (in table format) including the following information: a) date and location of the incident; b) details of the reporting procedure followed; c) description of the incident and relevant legislation; d) remedial actions; e) lessons learnt; and f) details of any contact with enforcing bodies.
Annex E: Copy of evaluation of change register	Refined at this stage to include a copy of the evaluation of change register.
Annex F: Final environmental investigation and monitoring reports	Refined at this stage to include copies of relevant reports (relating to protected species / habitats and cultural heritage investigations, and any environmental monitoring reports.

Table A.3 EMP content and structure - Third iteration (end of construction stage)

Responsibility for document production	Contractor
1. Introduction & background to project	
1.1 Purpose of the report	This section is refined to reflect the purpose of the EMP at this stage within the project lifecycle.

Table A.3 EMP content and structure - Third iteration (end of construction stage) (continued)

1.2 The project	Refined, where applicable, in response to changes in: <ol style="list-style-type: none"> 1) the physical characteristics of the project; 2) the design and mitigation assumptions; 3) the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 4) in legislation, policy and guidance/advice relating to any environmental topic; and 5) in response to stakeholder consultation.
1.3 Project objectives	n/a – no amendment anticipated.
2. Project team roles and responsibilities	
	Refined, where applicable, in response to project team changes.
3. Environmental actions and commitments	
	Refined, where applicable, in response to changes in: <ol style="list-style-type: none"> 1) date and signature for further completed action/commitments; 2) the physical characteristics of the project; 3) the design and mitigation assumptions; 4) the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 5) legislation, policy and guidance/advice relating to any environmental topic; and 6) response to stakeholder consultation.
4. Consents and permissions	
	Refined, where applicable, in response to changes in: <ol style="list-style-type: none"> 1) the consents / permissions; 2) the consents / permissions are no longer relevant; and 3) justification for either of these circumstances.
5. Environmental asset data and as built drawings	
	Refined, where applicable, in response to changes in the asset data changes or more becomes available.
6. Details of maintenance and EMP monitoring activities	

Table A.3 EMP content and structure - Third iteration (end of construction stage) (continued)

	<p>Refined, where applicable, at this stage:</p> <ol style="list-style-type: none"> 1) to include a description of post construction maintenance requirements; 2) to include assessment criteria to identify success; 3) to include procedures for monitoring and reviewing the EMP; 4) In response to changes in date and signature for further completed action / commitments; 5) In response to changes in the physical characteristics of the project; 6) in response to changes in the design and mitigation assumptions; 7) in response to changes in the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 8) in response to changes in legislation, policy and guidance/advice relating to any environmental topic; and 9) in response to changes in response to stakeholder consultation.
7. Induction, training and briefing procedures for staff	
	<p>This section is refined to reflect procedures for maintenance staff.</p>
8. References and glossary	
9. Annexes	
<p>Annex A: Constraints map</p>	<p>Refined, where applicable, in response to changes in:</p> <ol style="list-style-type: none"> 1) the physical characteristics of the project; 2) the design and mitigation assumptions; 3) the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 4) legislation, policy and guidance/advice relating to any environmental topic; and 5) response to stakeholder consultation.

Table A.3 EMP content and structure - Third iteration (end of construction stage) (continued)

Annex B: Relevant management plans	<p>Refined, where applicable, in response to changes in:</p> <ol style="list-style-type: none"> 1) the physical characteristics of the project; 2) the design and mitigation assumptions; 3) the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 4) legislation, policy and guidance/advice relating to any environmental topic; and 5) response to stakeholder consultation.
Annex C: Environmental method statements	<p>Refined, where applicable, in response to changes in:</p> <ol style="list-style-type: none"> 1) the physical characteristics of the project; 2) the design and mitigation assumptions; 3) the level of understanding of the current state of the environment and the potential effects of the development (e.g due to greater data availability); 4) legislation, policy and guidance / advice relating to any environmental topic; and 5) response to stakeholder consultation.
Annex D: Emergency procedures and record of any environmental incidents	<p>Refined, where applicable, in response to changes in:</p> <ol style="list-style-type: none"> 1) the procedures for dealing with an environmental emergency change; and 2) where further environmental incidents have occurred.
Annex E: Copy of evaluation of change register	Refined at this stage to include a copy of the evaluation of change register.
Annex F: Final environmental investigation and monitoring reports	Refined at this stage to include any additional reports.

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