



# Environmental Memorandum

## Annex 3 to the EMR

**CR/HB/E/0001**

Custodian

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### NOTE

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## **1. INTRODUCTION**

### **1.1 General Introduction**

- 1.1.1 This Memorandum, relating to the environmental aspects of the design and construction of Crossrail, between Maidenhead and Heathrow in the west and Shenfield and Abbey Wood in the east, builds upon discussions which have taken place between representatives of the Statutory Agencies Forum.
- 1.1.2 Discussions with these Agencies (hereinafter referred to as ‘the Agencies’) have proved valuable and the parties intend to continue to have clear and open discussion during the ongoing design and construction phases of the Project.
- 1.1.3 Consultation on the terms of this Memorandum has also taken place with the Local Authorities along the route, who are able to attend meetings of the Statutory Agencies Forum.

### **1.2 Scope of the Memorandum**

- 1.2.1 This Memorandum is concerned with the impacts of Crossrail on nature conservation, terrestrial and aquatic ecology, water resources, geomorphology, archaeology (in relation to watercourses and wetlands/aquatic systems), recreation and amenity impacts, landscape, public open space and agricultural land.
- 1.2.2 It is not intended that the Environmental Memorandum duplicates provisions within the Crossrail Act (for example Protective Provisions in Schedule 17). It is intended that the Memorandum is entirely consistent with the Act and is written with such consistency in mind. However, should there be any perceived conflict between this Memorandum and the Act, the Act will take precedence.
- 1.2.3 It is not intended that this Memorandum duplicate other components of the Environmental Minimum Requirements (EMR). In particular:
- a) the Planning and Heritage Memorandum covers the handling of planning matters arising from Schedule 7 (Statutory Conditions), heritage and townscape matters
  - b) the Construction Code covers the nominated undertakers’ responsible approach to environmental protection and limiting disturbance from construction activities, including other environmental issues such as noise and dust

### **1.3 Purpose and Understanding**

- 1.3.1 The purpose of the Environmental Memorandum is to provide a framework for the nominated undertaker and representatives of the Statutory Agencies’ Forum to work together to ensure design and construction of Crossrail is carried out with due regard for environmental considerations.
- 1.3.2 The parties to this Memorandum have therefore reached an understanding as to:
- a) the **aims** in relation to the environmental aspects of the ongoing design, construction and post-construction environmental monitoring of Crossrail;

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- b) the **mechanisms** for ensuring consultation and liaison between the parties, monitoring of the impacts of the construction of Crossrail, and compliance with (amongst other things) the environmental provisions in the Crossrail Act
- c) the **principles** to be followed in relation to the environmental aspects of the ongoing design and construction of Crossrail

1.3.3 The nominated undertaker and the Agencies agree to take all reasonable steps to achieve the aims of this Memorandum, through subscribing to the mechanisms and principles set out below.

1.3.4 Until such time as a nominated undertaker is appointed, the Department for Transport will fulfil the nominated undertaker's role.

## **2. AIMS**

2.1.1 The nominated undertaker and Agencies agree to the following environmental aims for Crossrail:

- a) to design and construct Crossrail such that the environmental impacts are eliminated, controlled or reduced where reasonably practicable
- b) to prevent environmental risks and environmental damage by developing mitigation measures to an appropriate standard and monitoring and enforcing them effectively
- c) to address sustainability principles in ongoing design, taking opportunities for environmental enhancement and compensation where practicable and reasonable

and in doing so, recognise that the nominated undertaker will take a responsible approach to balancing the achievement of environmental principles set out in Section 4 with the overall objectives of Crossrail.

2.1.2 The mechanisms for achieving these aims are set out in Section 3.

## **3. MECHANISMS**

### **3.1 Statutory Agencies Forum**

3.1.1 A Statutory Agencies Forum will continue to meet throughout the design and construction period and up to one year post-commissioning, unless agreed by the Forum that further meetings are no longer required. The Forum will provide a framework for early and effective consultation with the agencies and will keep them apprised of progress and issues. It will assist in the execution of this Memorandum, including advising on:

- Strategic approach to avoidance or mitigation of, or compensation for, adverse impacts on nature conservation, terrestrial and aquatic ecology, water resources, geomorphology, archaeology (in relation to watercourses and wetlands/aquatic systems), recreation and amenity impacts, landscape, public open space and agricultural land
- Strategic programme for monitoring the environmental impacts of the Project, and periodic review of results

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- Effectiveness of the Crossrail Project Environmental Management System
- Site specific mitigation and compensation measures where of strategic interest (see Section 5)

3.1.2 Additionally the Statutory Agencies' Forum will provide a co-ordinating mechanism for environmental aspects of submissions under Section 10 (Planning: general) of, and Schedule 7 (Planning Conditions) to the Crossrail Act. Local Authorities along the route will continue to be able to attend meetings of the Statutory Agencies Forum.

## **3.2 Liaison and Consultation**

3.2.1 The protective provisions to the Act (as set out in Schedule 17) contain specific timescales for the nominated undertaker and specified Agencies to respond to plans and method statements (or the approval of the Agencies is deemed to have been given). It is understood that such timescales are necessary to the timely delivery of the Crossrail project.

3.2.2 However, notwithstanding these statutory timescales, the nominated undertaker and the Agencies will seek early consultation on environmental issues, to ensure, as far as reasonably practicable, that environmental matters are not hindered by tight timescales, and the best practicable environmental solution is achieved.

3.2.3 The nominated undertaker will take the primary role in circulating available information of relevance to the Agencies in performing their regulatory and advisory duties. So far as permitted to do so by law, the Agencies will provide the nominated undertaker with all relevant information they possess.

3.2.4 The nominated undertaker and the Agencies will each identify named individuals who will be the primary environmental contact points between the parties. The nominated undertaker will inform the Agencies of the person in control of the works if reference is made to such a person within their respective Protective Provisions.

3.2.5 The nominated undertaker and the Agencies will ensure that constructive dialogue continues throughout the various phases of the Project through agreed consultation and liaison mechanisms as set out in this Memorandum.

## **3.3 Interrelationship between Statutory Agencies Forum and Planning Forum**

3.3.1 For qualifying authorities, the Planning and Heritage Memorandum sets out the principles to be taken into account as material considerations in the determination of requests for the approval of details. It is recognised that the decision for approvals under the planning regime rests with the Local Planning Authorities. However, the nominated undertaker will involve relevant Agencies on applications to Local Planning Authorities and circulate information of relevance to the Agencies at the same time as submitting for planning approval.

3.3.2 As far as reasonably practicable, the nominated undertaker will co-ordinate submission of Agency and Planning consents.

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3.3.3 The Planning and Heritage Memorandum requires a programme of mitigation for archaeological resources, in accordance with a written scheme of investigation. Where a watercourse or the banks of a watercourse are affected by any archaeological investigation, the nominated undertaker will consult the Environment Agency and, where relevant, British Waterways or the Port of London Authority, on the written scheme of investigation and, as far as reasonably practicable, ensure the submission of any relevant Agency consents are co-ordinated to avoid conflict with archaeological mitigation requirements agreed through the planning regime.

#### **3.4 Construction Code**

3.4.1 The Construction Code sets out specific details and working practices in relation to site preparation (including site investigation and remediation, where appropriate), demolition, material delivery, excavated material disposal, waste removal and all related engineering and construction activities. Subject to any specific requirements arising under protective provisions, these will be the arrangements by which the nominated undertaker and any sub-contractors will be required to work.

#### **3.5 Environmental Management System - Overview**

3.5.1 The nominated undertaker will develop and implement an Environmental Management System (EMS) to ensure compliance with environmental legislation, environmental provisions in the Crossrail Act, its own Policy Statement, and the Environmental Minimum Requirements. Figure 3.1 indicates the main elements of the Environmental Management System at a strategic level.

3.5.2 The Environmental Management System (EMS) will comprise:

- a) a published environmental policy statement
- b) a published set of objectives for fulfilling the environmental policy
- c) a register of the Environmental Minimum Requirements and relevant environmental legislation, undertakings and assurances
- b) a programme for achieving the objectives including targets, timescales, budgets and who is responsible for each item in the programme
- c) instructions, where required, to ensure that all staff understand that what they do or how they do it plays a part in fulfilling the environmental policy;
- d) day to day monitoring and control procedures
- e) regular reports on compliance and progress towards objectives
- f) an audit programme to provide an independent check on compliance and progress towards objectives,
- g) procedures to ensure compliance with the above, and
- h) an annual review of the EMS

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- 3.5.3 The EMS of the nominated undertaker and the EMS of main contractors will be consistent with the principles of BS EN ISO14001. Environmental criteria will be used at tender stage to ensure environmental considerations are taken account of in the awarding of contracts.
- 3.5.4 Particular requirements for the EMS during the Construction Phase are set out in Appendix 1.

Learning Legacy Document

**Crossrail Environmental Management Overview (Draft)**

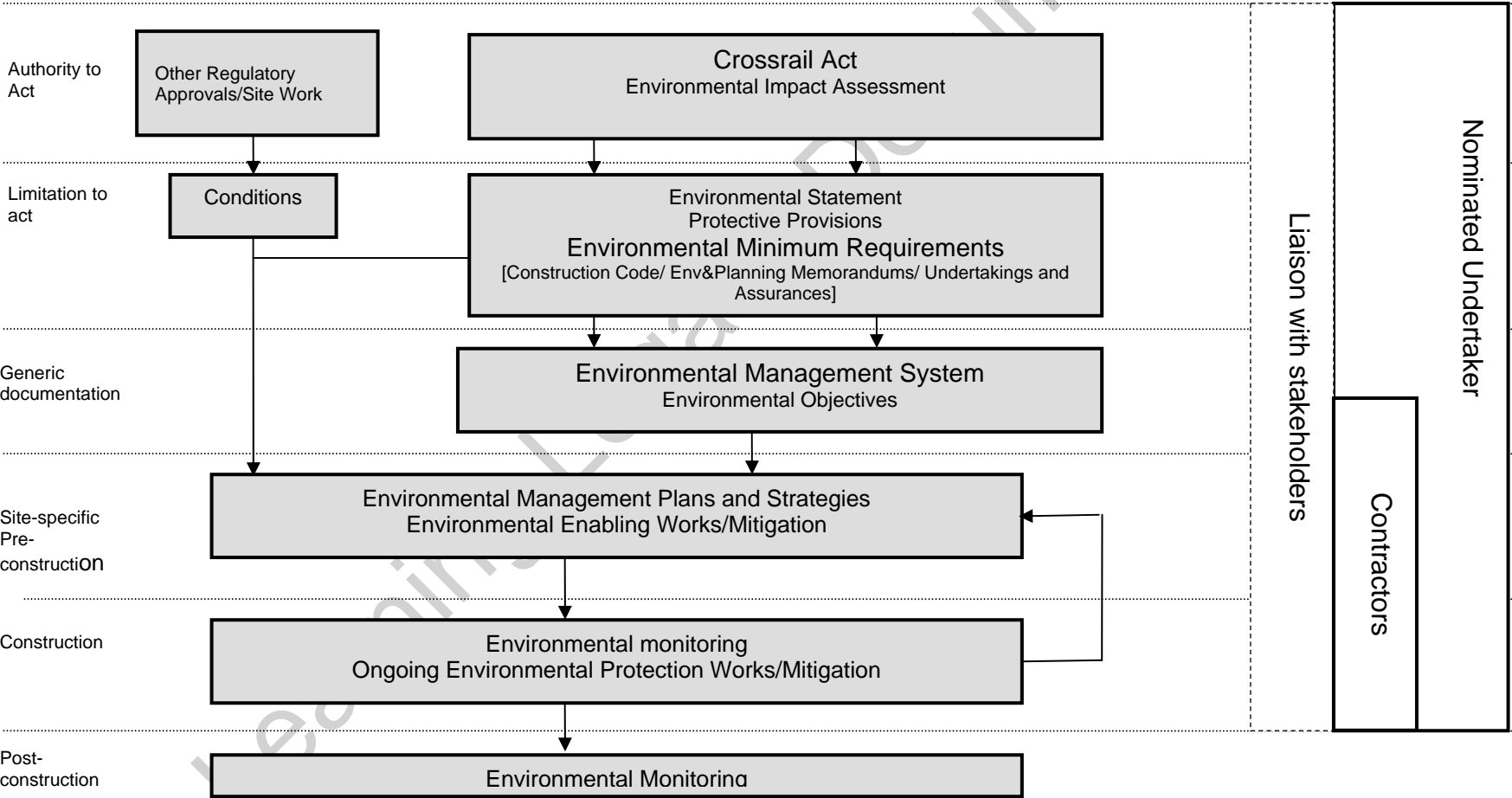


Figure 3.1: Crossrail Environmental Management Overview (Draft)

### **3.6 Control of Environmental Impacts**

- 3.6.1 It is the intention of the Secretary of State to carry out the project so that its impact is as assessed in the ES. The mechanisms established to control this objective are explained in the introduction to the EMR.

### **3.7 Interpretation**

- 3.7.1 Without prejudice to the exercise of their statutory functions, the nominated undertaker and the Agencies are committed to try to resolve any differences of opinion as to the interpretation of the Environmental Memorandum through discussion.

## **4. PRINCIPLES**

### **4.1 Introduction**

- 4.1.1 The EMR sets out the principles by which future environmental decisions on Crossrail will be taken, including the following:

### **4.2 Sustainable Development**

- 4.2.1 References to the UK's sustainability agenda that could be relevant to the Crossrail Project are set out in Appendix 2.
- 4.2.2 Through the EMS (see section 3.5), the nominated undertaker will develop, and keep under regular review, environmental objectives which address this sustainability agenda. Achievement of these objectives during ongoing design and construction stages will be monitored and reported to the Statutory Agencies Forum and Planning Forum.

### **4.3 Landtake**

- 4.3.1 Where decisions about landtake are necessary as the design is developed, the nominated undertaker will seek to avoid or minimise landtake from habitats and sites of nature conservation or geological importance, and from public open space and best and most versatile agricultural land, so far as reasonably practicable.

### **4.4 Integrated environmental approach**

- 4.4.1 An integrated environmental approach will be adopted as the design is developed, taking account of environmental principles within this document, land-use and other environmental issues as set out in other parts of the Environmental Minimum Requirements as appropriate.
- 4.4.2 Section 5 identifies environmental priorities for key environmental sites. Whilst all environmental issues will be considered at these and other sites, the nominated undertaker and the Agencies acknowledge the necessity of striking a balance between environmental interests.



- 4.4.3 Opportunities for environmental enhancement will be identified and implemented where related to the impacts of the project and reasonably practicable.

#### **4.5 Site Reinstatement**

- 4.5.1 Before giving up lands of which the nominated undertaker has taken temporary possession, the Act requires that the nominated undertaker shall return the land to a condition in accordance with a scheme agreed with the owners of the land and the relevant planning authority or as determined on appeal.
- 4.5.2 The Act requires that in the case of a worksite which has been permanently acquired, following construction the nominated undertaker shall return the land to a condition in accordance with a scheme agreed by the local planning authority.
- 4.5.3 For specific worksites, as set out in Section 5, where loss of vegetation, trees or ecological habitat is a concern, the nominated undertaker will be required to address these features as part of the Environmental Management Plan.

#### **4.6 Landscape**

- 4.6.1 Detailed landscape design should be appropriate to the local landscape and ecological character along the route. Trees and vegetation on temporary worksites which are lost as a result of construction will normally be replaced. Except for ornamental or specimen planting, preference will be given to native species typical of the area. Fencing, bunding and acoustic screening and any associated structures will be sensitively designed to be both effective and sympathetic to the local environment.
- 4.6.2 In order to achieve effective landscaping on commissioning of Crossrail, the nominated undertaker will put in place planting and other screening measures in advance of or during construction, where this is reasonably practicable and where there is no conflict with the construction programme or other construction requirements.
- 4.6.3 Where early visual screening is a key consideration, species to provide rapid growth will be provided. Species will be selected to complement the local landscape and ecological character where there is no overriding conflict with operational requirements, and will be supported by the planting of slower growing species. The nominated undertaker will draw up and implement a programme for the removal of early growth species.
- 4.6.4 The parties will seek agreement as to a schedule of tree and shrub species and the nominated undertaker will put in place measures at an early date to ensure that sufficient stock of appropriate maturity and provenance is available. Where reasonably practicable, the source of such nominated stock will be local.
- 4.6.5 Sites referred to in Section 5 will be the subject of an Environmental Management Plan with priority given to landscape considerations where indicated.

#### **4.7 Public Open Space**

- 4.7.1 In a number of locations public open space will be required for construction of the Crossrail scheme. Public open space includes formal and informal parks and playing fields. The measures set out in Section 4.5 on Site Reinstatement above applies to Public Open Space.
- 4.7.2 After the construction works have finished, temporary losses of public open space sites will be reinstated for public open space use.
- 4.7.3 Where a temporary or permanent loss of public open space has been identified, consideration will first be given to minimising the loss of public open space through the detailed design process. The nominated undertaker will be required to define worksite boundaries and layouts so as to maintain public access to any remaining public open space where reasonably practicable. Further mitigation through rearrangement of the remaining public open space and facilities, for example by reconfiguring playing pitch layouts, will also be considered.
- 4.7.4 Where significant temporary or permanent losses are still apparent after detailed design the nominated undertaker will be required to consider other forms of mitigation including:
- a) bringing land already in the ownership of the relevant authority into use as a public open space
  - b) improvements to other public open spaces to remedy the shortage caused by the loss, and
  - c) improved accessibility to existing open spaces.
- 4.7.5 Priority will be given to mitigation measures that can either be secured within the limits of land to be acquired for Crossrail or land which can be secured through agreement with the relevant authority. It is not anticipated that the Secretary of State will exercise the powers which would be conferred by the Act to acquire compulsorily land outside the Act limits for the purposes of replacement open space, unless other forms of mitigation have been considered and rejected and the residual impact on open space provision in the area in question warrants the exercise of compulsory powers.
- 4.7.6 A full statement of the Secretary of State's policy in relation to public open space can be found in Information Paper D 13.

#### **4.8 Nature Conservation**

- 4.8.1 Subject to any relevant approvals or agreements required for any restoration or mitigation schemes under Schedule 5 or 7 or 17 to the Act, land which is temporarily acquired or required in connection with the project will normally be restored to not less than former nature conservation value.
- 4.8.2 Where a site identified as being of importance for nature conservation (see Section 5) is permanently destroyed, reduced or fragmented to such an extent that it affects its ecological integrity or functionality, the nominated undertaker will identify an area of land which is as close as reasonably practicable to the habitat lost, both in terms of its location and its potential habitat quality (ie ecological integrity and functionality), for the management or creation of replacement habitat within the lands specified by the Act by way of mitigation under paragraph 4 of Schedule 2 to the Crossrail Act.

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- 4.8.3 In the event that an appropriate area cannot be identified within the limits of land which can be acquired under the Crossrail Act the nominated undertaker will use reasonable endeavours to identify such an area outside the limits of land which can be acquired under the Crossrail Act. It is expected that this will be by agreement with the landowner. Given the lack of statutory nature conservation sites affected by Crossrail, it is not expected that the Secretary of State will invoke the discretionary powers conferred by Section 7(4) of the Crossrail Act to acquire compulsorily land outside the designated limits for the purposes of nature conservation.
- 4.8.4 The management or creation of such habitat should be timed, where practicable and in consultation with the relevant nature conservation bodies, to allow use of donor material removed from affected sites. Relevant Biodiversity Action Plans and targets will be considered in the creation of such habitats.
- 4.8.5 The nominated undertaker will maintain and monitor the new, or managed, habitat, for a period long enough to ensure, as far as practicable, that the objectives of the work are achieved.
- 4.8.6 Sites referred to in Section 5 will be the subject of an Environmental Management Plan with priority given to ecological considerations where indicated.
- 4.8.7 Within this Memorandum, the terms nature conservation and ecology are to include consideration of biodiversity issues.

#### **4.9 Geological Features**

- 4.9.1 It is considered unlikely that the construction of Crossrail will expose or encounter geological deposits or features of high scientific value. Should a geological deposit or features of high scientific value be discovered, the nominated undertaker will carry out appropriate recording and if feasible, protection of such deposits. If necessary and where practicable, the material may be removed for study and preservation.

#### **4.10 Water and Watercourses**

- 4.10.1 Wherever reasonably practicable, interference with surface water features and existing drainage patterns, including important subterranean flows to wetland, will be avoided.
- 4.10.2 Where surface features or existing drainage patterns must be interfered with, so far as is reasonably practicable:
- a) necessary works will be positioned, designed and constructed to minimise impacts in terms of flow, minimise or manage flood risk, dewatering, water quality, erosion and/or sedimentation, resulting in adverse impacts on palaeoenvironmental, archaeological, ecological or landscape resources.
  - b) continuity of surface flows will be maintained to mitigate environmental impacts, by means of stream diversions, creation of natural banks and features and where unavoidable, culverts
  - c) mitigation of ecological impacts will be provided for and consideration will also be given to enhance nature conservation benefits resulting from drainage works,

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- d) compensation for loss of flood storage capacity will be provided on an equivalent basis within the limits of land which can be acquired under the Crossrail Act.

4.10.3 Paragraph 4.10.2 shall apply equally to new or extended culverts, stream diversions and balancing ponds.

4.10.4 The use of sustainable drainage principles will be investigated and implemented in preference to other forms of drainage, where this is reasonably practicable and agreed by the relevant statutory undertaker.

4.10.5 Maintenance access will be provided to Crossrail water-related infrastructure, to enable inspections and maintenance to be regularly carried out.

4.10.6 A water resources strategy accommodating the above points will be developed by the nominated undertaker in consultation with the Environment Agency. The consultation shall allow for the Environment Agency to have reference to their wider environmental and recreational duties

#### **4.11 Agricultural Land**

4.11.1 Where best and most versatile agricultural land is used temporarily, so far as reasonably practicable, measures will be employed to ensure its inherent agricultural characteristics are capable of restoration to their former quality in accordance with best practice as endorsed by DEFRA. Where agricultural land not of best and most versatile quality is temporarily affected, measures will be employed to ensure that it will be restored where it is reasonably fit for agricultural use. Measures referred to in this paragraph include adopting suitable methods of site preparation, operation, restoration and aftercare.

## **5. ENVIRONMENTALLY SENSITIVE WORKSITES**

### **5.1 Introduction**

5.1.1 Table 5.1 identifies key worksites within the Crossrail route in terms of nature conservation, terrestrial and aquatic ecology, water resources, geomorphology, recreation and amenity, landscape, public open space and agricultural land. The criteria for inclusion in Table 5.1 are:

- a) Worksites where a significant impact is generated in any of the environmental topics in paragraph 5.1.1; or
- b) Worksites of particular concern to statutory agencies.

5.1.2 For clarification, landscape impacts, as opposed to townscape impacts or visual impacts, are classified as those where the predominant impact is on open space, rather than buildings or visual amenity, although clearly there is considerable overlap. The reason for the distinction is that the framework for mitigation of townscape and related visual impacts is developed through the Planning Memorandums.

5.1.3 The Construction Code requires the nominated undertaker to prepare a number of environmental management plans setting out the specific control measures necessary to deliver the requirements of the Code. In addition, this Memorandum requires the nominated undertaker to prepare site-specific management plans for identified environmentally sensitive worksites, focusing on mitigation, compensation and monitoring requirements and opportunities for enhancement in relation to identified environmental topics as outlined in Table 5.1.

5.1.4 Table 5.1 also indicates key statutory consultees who, along with relevant local authorities will also be consulted on the Environmental Management Plan for these environmentally sensitive worksites. It is intended that these environmental management plans will be submitted for information with relevant Schedule 7 and, where appropriate, Schedule 17 applications, recognising that the grounds for consideration of Schedule 7 and Schedule 17 applications are those set out in the Crossrail Act.

5.1.5 If, during further design, the nominated undertaker is able to completely avoid the use of an environmentally sensitive worksite, then the nominated undertaker will report to the relevant members of the Statutory Agencies Forum and the relevant Local Authority that no Environmental Management Plan for that site will be produced.

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**Table 5.1: Environmentally Sensitive Worksites**

Route Window	Worksite Name	Key Designations	Priority issues	Natural England	GLA**	Sport England	Royal Parks	Env Agency	British Waterways	PoLA
W24	Guards Club Park, Maidenhead	OPOS, CA	E/L					✓		
W17	Halkincroft Wood	SINC*/ GB/OPOS	E	✓						
W14/5	Horton Brook/Land South of Grand Union Canal	SINC*/GB	E/W	✓				✓		
W14	Roughland North of Iver Station	SINC*/GB	E	✓						
W11	Stockley Pond	SINC (SMI)	E/W		✓			✓		
W11	Stockley Allotments		R/L							
W7	Hanwell worksites	CA/OPOS/SINC (SBI)	L/E							
W5	Haven Green	CA/OPOS	L/R							
W4	Acton Playing Field/Allotments	OPOS	R			✓				
W3	Old Oak Common - Canal Gasworks Nature Conservation Area and Birch Wood	SINC (SMI/SBI)	E/L		✓					
C3	Hyde Park	SINC (SMI)/MOL/RPG/CA	L/R				✓			
C3	Park Lane	CA	L				✓			
C4	Hanover Gardens	CA/PS/OPOS	L/R							
C7	Finsbury Circus	CA/RPG/CA/PS/SINC (SLI)/OPOS	L/R			✓				
C9	Stepney Green	SINC (SBI)***	E/R		✓	✓				
C11	Isle of Dogs	SINC (SBI)	E/W		✓			✓	✓	
C12	Mile End Park (Shaft)	SINC (SBI)/MOL	R/L		✓	✓				
C13	Pudding Mill Lane	SINC (SBI)	W/E		✓			✓	✓	
SE1	Limmo peninsula (including Instone Wharf)	SINC (SMI)	W/E					✓		✓
SE4	Warren Lane		R			✓				
SE6a	Belvedere (River Thames and Access Road)	SINC (SMI)	W/E					✓		✓
Multiple	Railway land	SINC (SBI)	E/L	✓	✓					

- Key Designations: SINC - Site of Importance for Nature Conservation (Site of Metropolitan/Borough/Local Importance); GB – Green Belt; MOL – Metropolitan Open Land; RPG – Registered Park and Garden; CA – Conservation Area; PS – Protected Square under the 1931 London Squares Protection Act, OPOS – Other Protected Open Space)
- Priority Issues Key: L – Landscape, E- Ecology, R – Recreation, W – Water
- \*-Sites outside GLA area: SINC equivalent, although different title; \*\* - GLA Biodiversity Unit to whom Natural England often delegate within London. \*\*\* - covered by Tower Hamlets Open Space Policy OS7, although not identified on Proposals Map

**6. REFERENCES**

Planning Policy Statement 1: Delivering Sustainable Development, ODPM 2005

Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations, 1999

Crossrail Environmental Statement, 2005, including Supplementary Environmental Statements and Amendment of Provisions Environmental Statements

Learning Legacy Document

**APPENDIX 1:**

**ENVIRONMENTAL MANAGEMENT SYSTEM –  
PARTICULAR REQUIREMENTS FOR THE CONSTRUCTION PHASE**

- A2.1 The nominated undertaker will have a person at senior level who has clear responsibility for environmental issues including the preparation, implementation and management of the Environmental Management System. A full time Environmental Manager will be responsible for monitoring and reporting on the operation of the EMS and compliance with the Construction Code.
- A2.2 The EMS will make provision for the identification and monitoring of construction activities predicted to have a potentially significant impact on environmental resources and sensitive receptors, immediately prior to and during construction, and during restoration and will incorporate liaison with relevant consultees.
- A2.3 The EMS will also include a procedure for receiving complaints and ensuring that appropriate action is taken in response to any non-compliance with statutory approved plans or construction arrangements.
- A2.4 The EMS will include a reporting structure that will require review of any construction activity causing a breach of requirement, by exceeding specified limits, or by breach of legislation or other specified agreement.
- A2.5 The EMS will provide for the definition of circumstances (where a breach is identified by nominated undertaker or relevant authority and immediate remedial action is not reasonably practicable) where a hold may be applied to the activity causing the breach until a revised working method can be implemented. Where the revised method is not consistent with the approved construction arrangements a procedure for consultation and approval, if appropriate, will be incorporated. The EMS will allow for prompt action to be taken to make good defects, failures or breakdowns in environmental protection measures.
- A2.6 The EMS will provide for the preparation of Environmental Management Plans as set out in this document and the Construction Code together with arrangements for discussion with the local authorities and other bodies as appropriate. The EMS will also provide for the use of Environmental Management Plans in developing more detailed arrangements in the subject areas specified in the Crossrail Act for subsequent approval by the authorities.
- A2.7 The EMS will provide for review of environmental issues during construction progress meetings to check that work is proceeding in accordance with agreed plans and arrangements; this review will allow for consideration of a report, received from the persons responsible for contact with the public and local planning authorities, giving details of any significant complaints received on environmental issues.
- A2.8 The EMS will provide that all relevant obligations on the nominated undertaker for environmental protection are observed by contractors and sub-contractors.
- A2.9 The individual responsible will report to the Planning Forum, Statutory Agency Forum and the High Level Forum on the achievement of objectives. A summary report will be published on an annual basis.



**APPENDIX 2:**

**SUSTAINABLE DEVELOPMENT REFERENCES**

**The following documents present existing and developing policy with regard to sustainable development that may be relevant to the Crossrail Project.**

- DEFRA, 2005. Securing the Future. The UK Government Sustainable Development Strategy. Cm. 6467, London, March 2005. <http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm>
- ODPM, 2005. Planning Policy Statement 1: Delivering Sustainable Development. ISBN 0 11 753939 2. London
- DTI, 2004. Sustainable Construction Brief 2. London, April 2004. <http://www.berr.gov.uk/files/file13939.pdf>
- DTI, 2006. Sustainable Construction Strategy Report. Draft January 2006. <http://www.berr.gov.uk/files/file21332.pdf>
- BERR, 2007. Draft Strategy for Sustainable Construction. July 2007. <http://www.berr.gov.uk/files/file40641.pdf>
- South East England Regional Assembly, 2004. The Integrated Regional Framework 2004: A Better Quality of Life in the South East, June 2004, [http://www.southeast-ra.gov.uk/sustainability\\_irf.html](http://www.southeast-ra.gov.uk/sustainability_irf.html)
- East of England Regional Assembly, 2005. Sustainable Futures, The Integrated Regional Strategy for the East of England, October 2005, <http://www.eera.gov.uk/category.asp?cat=47>
- London Sustainable Development Commission, 2003. A Sustainable Development Framework for London, June 2003, [http://www.london.gov.uk/mayor/sustainable-development/susdevcomm\\_framework.jsp](http://www.london.gov.uk/mayor/sustainable-development/susdevcomm_framework.jsp)
- GLA, 2004, Sustainability Appraisal of the final London Plan. London, April 2004. <http://www.london.gov.uk/mayor/strategies/sds/sustainability.jsp>
- GLA, 2006, Sustainable Design and Construction. The London Plan Supplementary Planning Guidance. ISBN 1 85261 884 1 London, May 2006 [http://www.london.gov.uk/mayor/strategies/sds/sustainable\\_design.jsp](http://www.london.gov.uk/mayor/strategies/sds/sustainable_design.jsp)