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Dear Clare,

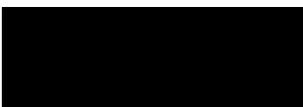
**Thames Tunnel EIA Scoping Report
Section 51 Advice**

Further to our meeting on 13 April 2011, I enclose the Commission's advice under Section 51 of the Planning Act 2008 in respect of the Scoping Report for the project (March 2011).

We have also included within the Section 51 advice a list of organisations the Commission has identified as 'consultation bodies' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ("the EIA regs") who would be consulted were the Commission required to issue a scoping opinion for the project. Our interpretation of the relevant schedule is precautionary and in line with our published [Advice Note 3](#) (March 2010), which was enclosed in previous correspondence to you.

I hope this is helpful. If you have any other queries, please do not hesitate to contact me, or my colleagues Will Spencer or David Price.

Yours sincerely,



Simon Butler
EIA Manager

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Section 51 Advice on the Proposed Thames Tunnel Scoping Report

May 2011



independent impartial inclusive

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EXECUTIVE SUMMARY

This advice summarises the Infrastructure Planning Commission's ('the Commission's') views in respect of the proposed content of the Environmental Statement (ES) for the proposed Thames Tunnel (TT) project. As the project is not currently a nationally significant infrastructure project (NSIP), this is not a formal scoping opinion but is advice provided under Section 51 of the Planning Act 2008 ('the Act').

The Commission's views are based on the information provided in Thames Water's (TW's) report entitled 'Thames Tunnel Scoping Report: Environmental Impact Assessment (March 2011) ('the Scoping Report'). This advice can only reflect the proposals as currently described by TW in the Scoping Report.

As this advice is provided under s51, the Commission have not consulted on the Scoping Report with the prescribed consultation bodies. The Commission has reviewed the structure of the Scoping Report and is satisfied that the topics identified encompass those matters identified in Schedule 4 Part 1 paragraph 19 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ('the EIA Regulations').

The Commission draws attention both to the general points and those made in respect of each of the specialist topics in this advice. The main potential issues identified are:

- transport impacts;
- noise and vibration impacts;
- visual, historical and townscape impacts;
- emissions to air and water;
- ecological impacts (terrestrial and aquatic);
- socio-economic impacts
- waste impacts
- Climate change impacts

This advice has no legal status as a scoping opinion made under Regulation 8 of the EIA Regulations. However, where applicable, if TW has in the Scoping Report specifically addressed and justified matters which it is intended to exclude from the ES, the Commission has provided Section 51 advice about whether such matters should be included in the ES.

1.0 INTRODUCTION

Background

- 1.1 The proposed project is a waste water storage and transfer tunnel which traverses through 14 London Borough local authority areas.
- 1.2 Section 14 of the Act does not currently include a category of project which consists of a waste water storage and transfer tunnel. Nevertheless, Ministerial statements from both the previous and present Government have indicated that the proposed development will be considered under the Act. It is understood that this will be achieved by an Order made by the Secretary of State (SoS) under Section 14(3) of the Act which will add 'waste water storage and transfer tunnel' to the list of projects which are Nationally Significant Infrastructure Projects (NSIPs).
- 1.3 Whilst the Thames Tunnel (TT) is not currently an NSIP, Thames Water (TW) intends to 'shadow' so far as it can the pre-application procedures which must be carried out in accordance with the Act.
- 1.4 On the 8 March 2011, the Commission received a report titled Thames Tunnel Scoping Report (the Scoping Report) submitted by TW. This was accompanied by a request for the Commission to provide comments on TW's proposed scope of the Environmental Statement (ES).
- 1.5 Although the Commission does not have jurisdiction to accept an application and therefore to issue a scoping opinion, the Commission has considered TW's Scoping Report and has provided comments within this advice which constitute Section 51 advice made in accordance with the Act. This Section 51 advice should be read in conjunction with the Scoping Report.

Pre-application EIA Scoping Process for NSIPs

- 1.6 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (EIA Regulations) set out the scoping process for NSIPs which typically comprises the following stages:
 - the Applicant notifies the Commission that it intends to provide an ES (a Regulation 6 notification¹);
 - the Applicant requests a scoping opinion from the Commission (under Regulation 8);

¹ Under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009

- the Commission consults with the ‘consultation bodies’. These bodies are those defined in Regulation 2 of the EIA Regulations;
 - the Commission issues a scoping opinion to the Applicant, together with a list of the consultation bodies.
- 1.7 TW issued a Regulation 6 notification on 9 September 2009 under the EIA Regulations. The Commission was unable to accept this notification because the legislative basis for determining an application is not yet in place.
- 1.8 Under the EIA Regulations, requests for a scoping opinion under Regulation 8(3) of the EIA Regulations must be accompanied by:
- a plan sufficient to identify the land;
 - a brief description of the nature and purpose of the development and its possible effects on the environment; and
 - such other information or representations as the person making the request may wish to provide or make.
- 1.9 On this basis, the Commission considers that the TT Scoping Report would be likely to satisfy these requirements.
- 1.10 In preparing this Section 51 advice the Commission has also taken into account the following matters [defined in EIA Regulation 8(9)] as though this were a scoping opinion:
- the specific characteristics of the particular development;
 - the specific characteristics of the development of the type concerned; and
 - the environmental features likely to be affected by the development.
- 1.11 The Commission stresses the importance of ensuring that the written description of the proposal is consistent with the boundaries shown on accompanying plans. Adherence to this approach ensures that the proposal is clearly defined.

Consultation

- 1.12 As the Commission does not have jurisdiction to issue a scoping opinion the duty under Regulation 8(6) of the EIA Regulations to consult on the information provided does not therefore arise. The Commission has however within this advice provided advice to TW on the relevant consultation bodies who would be consulted by the Commission if the project were an NSIP (see Appendix A).
- 1.13 Generally, where applicable, the Commission expects that ESs submitted in support of Development Consent Order (DCO) applications should demonstrate consideration of points raised by

statutory consultees. It is understood that TW is carrying out its own scoping consultation and it is suggested that TW pays particular regard to the responses of the bodies which TW has consulted on a non statutory basis. The Commission recommends that a table is provided in the ES summarising any scoping responses from consultees and how they were addressed within the ES.

Section 51 advice on content of ES

- 1.14 This advice provides guidance on the information that the Commission considers should be included in the ES that will support a DCO application. In preparing this advice the Commission has taken into account issues such as:
- the EIA Regulations;
 - the nature and scale of the proposed development;
 - the nature of the receiving environment; and
 - current best practice in the preparation of ESs.
- 1.15 The Commission has carefully considered the matters addressed by the Scoping Report and has used professional judgement and experience in order to prepare this advice. The Commission is required to take account of relevant legislation and guidelines when considering ESs. The Commission will not be precluded from requiring additional information if it is considered necessary in connection with an ES submitted with an application for a DCO.
- 1.16 This advice should not be construed as implying that the Commission agrees with the information or comments provided within the Scoping Report. In particular, any comments from the Commission in this advice are without prejudice to any decision taken by the Commission (on submission of an application) that any development identified by the Scoping Report is necessarily to be treated as part of a NSIP or associated development, or development that does not require development consent.

Structure of the Document

- 1.17 This document is structured as follows:

Section 2 The Proposed Development

Section 3 EIA Approach and Topic Areas

Section 4 Other Information

Appendix 1 Indicative List of Consultees

Appendix 2 Presentation of the Environmental Statement

2.0 THE PROPOSED DEVELOPMENT

Information provided by Thames Water

- 2.1 The following is a summary of the information on the sites and surroundings prepared by TW. The Commission has not verified this information.

The Need for the Development

- 2.2 Part A of the Scoping Report provides an overview of the project, including the approach to scoping and the proposed EIA methodologies and structure of the ES.
- 2.3 The Victorian combined sewerage system in London opened for operation in the 1860s to drain both waste water (sewage) and storm water (rainfall). Although the vast majority of sewage passes forward for treatment, not all flows can be treated following excessive periods of rainfall. Rapid increases in both land development and the population that the sewerage system serves means that, in a typical year, its capacity to cope with rainfall is exceeded as often as 60 times at some locations. This results in untreated (raw) sewage being discharged to the tidal River Thames.
- 2.4 The impact of the intermittent discharges during wet weather is dependent on river conditions, but it can adversely affect the water quality and amenity of the tidal River Thames.
- 2.5 The UK Government is required to meet the requirements of the Urban Waste Water Treatment Directive (UWWTD) and the Water Framework Directive (WFD). It is understood that TW must meet the requirements of the related UK Urban Waste Water Treatment Regulations 1994 in respect of collection and treatment of sewage within its area, and the requirements of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 in respect of aiming to reach good chemical and ecological status in inland and coastal waters by 2015.

Description of the Development

- 2.6 TW is promoting the TT project to substantially reduce the volume and frequency of discharges of storm sewage to the tidal River Thames (the Thames Tideway). The project is proposed to capture, store and transport for treatment the discharges from existing combined sewer overflows (CSOs) which have been identified by the Environment Agency (EA) as unsatisfactory. TW makes the case that the project is necessary to enable the UK to comply with the European Union's UWWTD.

- 2.7 The Scoping Report describes the 'preferred scheme' for the project which has been the subject of a first phase of consultation.
- 2.8 TW's preferred option would capture and store unacceptable discharges from CSOs along the route of the Thames Tideway. The main tunnel would run between Hammersmith Pumping Station in the London Borough of Hammersmith and Fulham, and Abbey Mills Pumping Station in the London Borough of Newham, where it would connect to the Lee Tunnel (under construction). Flow captured in the Thames Tunnel would be passed forward through the Lee Tunnel for treatment at Beckton Sewage Treatment Works (STW).
- 2.9 Connector tunnels would link the main tunnel to Acton Storm Tanks in the London Borough of Ealing, Greenwich Pumping Station in the London Borough of Greenwich, and Druid Street CSO in the London Borough of Southwark. The main tunnel would be approximately 23km long, and connecting tunnels linking in to the main tunnel would be approximately 10.6km long.
- 2.10 The project comprises the following four main elements:
- **the main tunnel** - 23km long pipeline with a 7.2m internal diameter. It closely follows the route of the tidal River Thames, from Hammersmith Pumping Station in the London Borough of Hammersmith and Fulham to Abbey Mills Pumping Station in the London Borough of Newham. The tunnel is approximately 35m deep in the west, and 65m deep in the east. The main tunnel will provide the majority of the storage capacity, and will transfer the intercepted flows to Beckton STW for treatment (via Abbey Mills and the Lee Tunnel);
 - **the connection tunnels** - twelve connection tunnels total approximately 10.6km in length (ranging between 2.2m and 4.5m in diameter), and works will be required to control and intercept the storm sewage from the combined sewer overflows, and convey the discharged flows into the main tunnel;
 - **the drive and reception shaft construction sites for the main tunnel and connection tunnel** - required to facilitate tunnel boring activities. Tunnel Boring Machines (TBM) are launched at drive sites, and retrieved at reception sites. The site area for main tunnel drive sites (approx 18,000m² to 20,000m²) depends on local ground conditions. The site area for main tunnel reception sites is approximately 5,000m² to 7,500m². It is anticipated that main tunnel drive shaft sites would be required as construction sites for six to seven years. It is anticipated that main tunnel reception shaft sites would be required as construction sites for four to five years. The following operational permanent infrastructure would be required at these sites:

- a ventilation building to extract and treat air (approximately 10m high, 12m wide and 20m long);
 - a ventilation column (approximately typically 10m to 15m high, and 1m to 3m in diameter);
 - a high pressure relief vent (size will be dependent on shaft site location);
 - a means of access, and space adjacent to the shaft footprint to accommodate mobile cranes; and
 - shaft access points.
- **the combined sewer overflow (CSO) construction sites** - required to facilitate interception works and connection to the main tunnel. The objectives for the interception of flows from the existing CSOs are to: redirect flows from the combined sewer; transfer flows into the main tunnel; and continue to use the existing outlets when the Thames Tunnel is full to direct residual flow to the Thames Tideway. The site area for CSO construction sites will typically be approximately 1,500m². It is anticipated that the construction period at CSO construction sites would typically be two years, but may range from one to four years. Operational permanent infrastructure would also be required at CSO sites and varies depending on the site specific nature. Site specific characteristics have been summarised below

Proposed Development within each Local Authority area

2.11 Part B of the Scoping Report describes the project (including the preferred construction sites and tunnel route) within each local authority area and the potential significant effects on the environment. A total of 23 preferred construction sites are identified, located within 14 local authorities.

- **London Borough of Ealing**

1. *Acton Storm Tanks*

- **Existing:** open space, forming part of the landscaped area at the southernmost tip of an existing TW pumping station site;
- **Proposed:** CSO construction site, connection tunnel reception site.

In addition, approximately 0.07km of connection tunnel would be constructed within the Borough.

- **London Borough of Hounslow**

- **Existing:** not applicable as the project is entirely underground in the Borough;

- **Proposed:** approximately 0.5km of connection tunnel. The connection tunnel depth would range between approximately 20m and 30m.

- **London Borough of Hammersmith and Fulham**

1. *Hammersmith Pumping Station*

- **Existing:** hard surfaced areas, vegetation and a TW pumping station.
- **Proposed:** main tunnel reception shaft construction site, a drive site for a connecting tunnel towards Acton Storm Tanks and a CSO construction site.

In addition, approximately 3.1km of underground tunnel would be constructed within the London Borough, comprising approximately 1.6km of main tunnel and 1.5km of connection tunnel. The main tunnel would be approximately 35m deep.

- **London Borough of Richmond upon Thames**

1. *Barn Elms*

- **Existing:** closely-mown amenity grassland for use as sport pitches within the Barn Elms School Sports Centre, with strips of semi-mature trees along the south-western and eastern boundaries.
- **Proposed:** a main tunnel drive and CSO construction site.

In addition, approximately 2.3km of underground tunnel would be constructed within the Borough, comprising approximately 1.6km of main tunnel and a 0.7km connection tunnel between Acton Pumping Station and the main tunnel. The main tunnel would be approximately 35m deep.

- **London Borough of Wandsworth** - includes six preferred sites, some of which have multiple functions, as drive/CSO interception and/or as reception sites.

1. *Putney Bridge*

- **Existing:** the River Thames foreshore, approximately 80 metres to the west side of Putney Bridge.
- **Proposed:** CSO interception site.

2. *Bell Lane Creek*

- **Existing:** forms part of the Frogmore Complex, an industrial estate comprising various industrial units with associated loading/unloading areas and car parking. The site is presently used by a private business (Panorama Antennas), and is adjacent to the London Borough of Wandsworth maintenance depot.
- **Proposed:** CSO construction site for the Frogmore Storm Relief Sewer and drive site for two connection tunnels.

3. *King George's Park*

- **Existing:** occupies the northern tip of King Georges Park, adjacent to the entrance from Buckhold Road (A218) at the junction with Neville Gill Close.
- **Proposed:** CSO construction site and connection tunnel reception site.

4. *Jews Row*

- **Existing:** a ready-mix concrete depot located adjacent to the River Thames, to the west of Wandsworth Bridge.
- **Proposed:** CSO construction site.

5. *Bridges Court Car Park*

- **Existing:** hard-surfaced car park associated with surrounding mix of uses.
- **Proposed:** CSO construction site.

6. *Tideway Walk*

- **Existing:** a TW pumping station and part of the Thames Tideway Industrial Estate.
- **Proposed:** main tunnel drive site and CSO construction site.

In addition, approximately 5.9km of tunnel would be constructed within the Borough, comprising approximately 4.5km of main tunnel and approximately 1.4km of connection tunnels to the main tunnel.

- **Royal Borough of Kensington and Chelsea**

1. *Cremorne Wharf*

- **Existing:** the River Thames foreshore, between Chelsea Creek and Cremorne Gardens.

- **Proposed:** CSO interception site.

2. *Chelsea Embankment*

- **Existing:** the River Thames foreshore, to the west of Chelsea Bridge.
- **Proposed:** CSO interception site.

In addition, approximately 2.3km of underground tunnel would be constructed within the Borough, comprising approximately 2.2km of main tunnel and approximately 0.1km of connection tunnel. The main tunnel depth would be approximately 45m.

- **City of Westminster**

1. *Victoria Embankment*

- **Existing:** the River Thames foreshore, to the south of Hungerford Bridge. The site is in an area heavily used by pedestrians and tourists.
- **Proposed:** CSO construction site to the south of Hungerford Bridge. Use of the site is likely to require the temporary or permanent relocation of two boats currently moored along the embankment.

In addition, approximately 2.6km of underground tunnel would be constructed within the City of Westminster, comprising approximately 2.5km of main tunnel and 0.1km of connection tunnel. The main tunnel depth would be approximately 50m.

- **London Borough of Lambeth**

1. *Albert Embankment*

- **Existing:** the River Thames foreshore, close to Albert Embankment and to the east of Vauxhall Bridge. The site is bounded to the east by a high-rise office building. The MI6 building is to south of the site.
- **Proposed:** CSO construction site.

In addition, approximately 1.05km of underground tunnel would be constructed within the Borough, comprising approximately 0.98km of main tunnel and 0.07km of connection tunnel. The main tunnel depth would be approximately 45m.

- **City of London**

1. *Blackfriars Bridge*

- **Existing:** the River Thames foreshore, directly under and to the west of the Blackfriars road bridge. Blackfriars Millennium Pier and the northern part of the Blackfriars Underpass are also within the site.
- **Proposed:** CSO interception site.

In addition, approximately 1.6km of the main tunnel would be constructed within the Borough. The main tunnel depth would be approximately 55m.

- **London Borough of Southwark** – includes Druid Street; and King’s Stairs Gardens.

1. Druid Street

- **Existing:** a children’s playground with equipment and landscaped garden area.
- **Proposed:** CSO construction site.

2. King’s Stairs Gardens:

- **Existing:** occupies the northern end of King’s Stairs Gardens (a public park) and Fulford Street. The site is immediately adjacent to the River Thames.
- **Proposed:** main tunnel reception site and a drive site for two connection tunnels.

In addition, approximately 5.6km of underground tunnel would be constructed within the Borough, comprising approximately 2.5km of main tunnel and 3.1km of connection tunnels. The average main tunnel depth would be approximately 60m.

- **London Borough of Tower Hamlets.**

1. King Edward Memorial Park

- **Existing:** the River Thames foreshore, directly south of and adjoining King Edward Memorial Park, a well maintained recreational area containing large grassed areas with pedestrian paths, tennis courts, bowling greens, a children’s play area, a bandstand, and large paved seating areas along the Thames Path.
- **Proposed:** drive site for a connection tunnel and a CSO construction site.

2. Butcher Row

- **Existing:** vegetated scrubland.
- **Proposed:** CSO construction site.

In addition, approximately 4.8km of underground tunnel would be constructed within the Borough, comprising approximately 4.1km of main tunnel and 0.7km of connection tunnel. The main tunnel depth would be approximately 60m.

- **London Borough of Lewisham**

1. *Earl Pumping Station,*

- **Existing:** a TW pumping station and adjacent industrial land.
- **Proposed:** CSO construction site and

In addition, approximately 1.5km of connection tunnel would be constructed within the Borough.

- **London Borough of Greenwich** – includes Borthwick Wharf and Greenwich Pumping Station.

1. *Borthwick Wharf:*

- **Existing:** the River Thames foreshore, directly in front of the AHOY Centre yacht club. The site includes the western half of a slipway onto the River Thames.
- **Proposed:** CSO construction site.

2. *Greenwich Pumping Station:*

- **Existing:** a TW pumping station and surrounding land.
- **Proposed:** CSO interception site.

In addition, approximately 1.0km of connection tunnel would be constructed within the Borough,

- **London Borough of Newham**

1. *Abbey Mills Pumping Station:*

- **Existing:** to the south of the Abbey Mills Pumping Station on an area of greenfield land, flanked by watercourses.
- **Proposed:** main tunnel drive site to connect the Thames Tunnel to the Lee Tunnel (currently under construction).

2. Beckton STW

- **Existing:** Beckton STW.
- **Proposed:** the main tunnel does not go to Beckton STW and so it is not required as a main tunnel shaft site, but other types of works are required, including: additional pumps; construction of structures and pipe work to transfer the flows to the STW; two additional grit removal channels and coarse screens; a new control centre in an existing building; various flow diversions and/or control gates within the STW; and extension of odour control facilities as appropriate.

In addition, approximately 0.7km of underground tunnel would be constructed within the Borough, comprising the main 7.2m diameter tunnel connecting the section to the west (in the London Borough of Tower Hamlets) to the shaft, and the Lee Tunnel connection at Abbey Mills Pumping Station. The main tunnel would be approximately 65m deep.

Other Works

- 2.12 In addition to the sites required to build and operate the interception of CSOs, their connection tunnels and the main tunnel, there would be other works associated with the proposed development. These include connections to the northern Low Level Number 1 Sewer, and other minor sewer modifications and safety access points.

Commission's Comments

Description of the Development

- 2.13 TW should ensure that the description of the proposed development that is being applied for is as accurate and firm as possible as this will form the basis of the ES. It is understood that at this stage in the evolution of the scheme the description of the proposals and even the location of the site(s) may not be confirmed. TW should be aware however; that the description of the development in the ES must be sufficiently precise to meet the requirements of paragraph 17 of Schedule 4 of Part 1 of the EIA Regulations so that there is therefore more certainty by the time the ES is submitted with the DCO.
- 2.14 When preparing the application, TW should clearly define which elements of the proposed development are integral to the proposed NSIP, which are 'associated development' under the Act, and which are an ancillary matter.
- 2.15 The potential effects of any proposed works and/or infrastructure required as associated development, or ancillary matters (whether on

or off-site), should be considered as part of an integrated approach to environmental assessment.

- 2.16 The Commission recommends that the ES should include a clear description of all aspects of the proposed development, at the construction, operation and decommissioning stages, and include:
- land use requirements;
 - site preparation;
 - construction processes and methods;
 - transport routes;
 - operational requirements including the nature and quantity of materials used, as well as waste arisings and their disposal;
 - maintenance activities including any potential environmental or navigation impacts; and
 - emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc).
- 2.17 The ES must set out an outline of the main alternatives studied by TW and provide an indication of the main reason for TW's preferred choice, taking account of the environmental effects (paragraph 18, Part 1, Schedule 4 of the EIA Regulations). The reasons for the preferred choice should be made clear and the comparative environmental effects identified in the ES.
- 2.18 The environmental effects of all wastes to be processed and removed from the site should be addressed. The ES will need to identify and describe the control processes and mitigation procedures for storing and transporting waste off site. All waste types should be quantified and classified.
- 2.19 TW should make every effort in the ES to assess the potential impacts of the proposed development during construction and operation.

Description of the Surrounding Area

- 2.20 Statutory designations in each local authority area should be clearly identified.

Flexibility

- 2.21 The Rochdale Envelope principle [see *R v Rochdale MBC ex parte Tew (1999)* and *R v Rochdale MBC ex parte Milne (2000)*] is an accepted way of dealing with uncertainty in preparing development applications. TW's attention is drawn to the Commission's *Advice Note Nine: Using the Rochdale Envelope*, available on the Commission's website.
- 2.22 The Commission does not consider it appropriate as part of this advice to address the content of a proposed draft DCO, since this is a matter

for applicants, but does draw the attention of TW to CLG and the Commission's published guidance and advice on the preparation of a draft DCO and accompanying application documents. The ES should support the application as described.

- 2.23 The Commission is not able to entertain material changes to a project once an application is submitted.
- 2.24 The ES should be able to confirm that any changes to the development within any proposed parameters would not result in significant impacts not previously identified and assessed. The maximum and other dimensions of the proposed development should be clearly described in the ES, with appropriate justification.
- 2.25 The Commission acknowledges that the process of EIA is iterative and therefore that the proposals may change and evolve. For example, there may be changes to the scheme design in response to consultation. Such changes should be addressed in the ES.
- 2.26 At the time of application, any proposed scheme parameters should not be so wide ranging as to represent effectively different schemes. The scheme parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES. It is a matter for the applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the development in the ES must not be so wide that it is insufficiently certain to comply with requirements of paragraph 17 of Part 1 of Schedule 4 of the EIA Regulations.
- 2.27 It should be noted that if the proposed development changes substantially during the EIA process, prior to application submission, TW may wish to consider the need to request a scoping opinion.

Decommissioning

- 2.28 In terms of decommissioning, the Commission notes that the applicant states that this is not relevant to a project of this type. However, the applicant may wish to satisfy itself that there are no decommissioning or demolition works, for instance in relation to elements other than the main tunnel such as connection tunnels or ventilation structures, that would give rise to environmental impacts and to consider whether such works comprise development authorisation for which should be sought in the DCO application.

3.0 EIA APPROACH AND TOPIC AREAS

General Comments on the Scoping Report

- 3.1 The information provided in the Applicant's Scoping Report sets out the proposed approach to the preparation of the ES. Whilst early engagement on the scope of the ES is to be welcomed, the Commission appreciates that in general the level of information provided at this stage is not always sufficient to allow for detailed comments from either the Commission or consultees. The Commission suggests that TW ensures that appropriate consultation is undertaken with the relevant consultees in order to agree wherever possible the timing and relevance of survey work as well as the methodologies to be used. The Commission advises that the scope of investigations should be finalised in conjunction with ongoing stakeholder liaison and consultation with the relevant regulatory authorities and their advisors.
- 3.2 The Scoping Report (*Part A, Section 5: Proposed ES structure and contents*) sets out the proposed contents list of the ES on which TW seeks the comments of the Commission. The Commission notes the statement in paragraph 5.4.6 that Volume 5 of the ES will provide an overview of the Scoping opinions received from local authorities and how these have influenced the assessment. Should the project become an NSIP, such an approach should also apply to the recommendations within this advice.
- 3.3 Paragraph 5.5.3 of Part A identifies the following topics for consideration within the ES:
- Air quality and odour
 - Ecology (aquatic)
 - Ecology (terrestrial)
 - Historic environment
 - Land quality
 - Noise and vibration
 - Socio-economics
 - Townscape and visual
 - Transport
 - Water resources (groundwater)
 - Water resources (surface water)
 - Project-wide.
- 3.4 The Commission makes specific comments on these topics under the Topic Areas in this section.
- 3.5 The Commission notes the proposed draft structure of the ES and explanation set out in Sections 5.3 – 5.9 of the Scoping Report (Part A). To aid decision-making the Commission suggests that the ES

should assess and summarise the impacts of the project as a whole, as set out below addressing all phases of the development, the inter-relationship between each topic and their cumulative effects with other developments.

- 3.6 The Commission notes that the ES will be a stand alone document and will include all appendices as well as any photographs or photomontages. The Commission recommends that such information is made available and included within the ES.
- 3.7 The Commission suggests that Volume 3 (Proposed Development) should include a description of the proposed construction programme and methods. Details of the maintenance arrangements throughout the lifetime of the project, including demolition as appropriate, should be described, together with the disposal methods for the waste generated at each of the construction sites and the mechanisms for the proposed dewatering of excavated material onsite. A full assessment of the effects of these matters (for each assessment topic) should be included within the ES.
- 3.8 The Commission suggests that the proposed report on construction methodology (phasing, plant/machinery and working hours - paragraph 3.4.21) should be appended to the ES.
- 3.9 The Commission recommends that the physical scope of the study areas should be identified under all the environmental topics and should be sufficiently robust in order to undertake the assessment. The extent of the study areas should be on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given. Scope should also include the breadth of the topic and the temporal scope, and these aspects should be described and justified.
- 3.10 The Commission recommends that the baseline data is comprehensive, relevant and up-to-date. Surveys needed to inform the ES should be up to date. The methodology, timing and scope of all surveys should adhere to current regulations and guidance and be agreed with the relevant statutory bodies. If necessary, consideration should be given to the need to obtain relevant information from other European states and the need to ensure that transboundary issues are identified and addressed. (Further comments on this matter are provided in Section 4 of this advice.)
- 3.11 The Commission recommends that each assessment should consider all phases of use – construction, commissioning and operation. The Commission notes that TW intends to scope out an assessment of the impacts relating to decommissioning the TT. This notwithstanding, the Commission suggests that the ES should include an assessment of the

effects resulting from any potential works, including demolition, necessary to maintain any part of the proposed development.

- 3.12 The EIA Regulations require the identification of the '*likely significant effects of the development on the environment*' (paragraph 20, Part 1, Schedule 4). The Commission notes the terminology used in Section 4.3 of the Scoping Report for classifying environmental impacts. The Commission recognises that the way in which each element of the environment may be affected by the proposals can be approached in a number of ways but considers that it would be helpful, in terms of ease of understanding and in terms of clarity of presentation, to consider the impact assessment in a similar manner for each of the specialist topics. The Commission recommends that a common format should be applied where possible.
- 3.13 The Commission draws attention to the commentary at Appendix 2 of the Scoping Report and in particular the description of the assessment for cumulative impacts and inter-relationship impacts.
- 3.14 Consideration of the inter-relationship between impacts is a requirement of the EIA Regulations (see Part 1 of Schedule 4). Inter-relationship impacts occur where a number of separate impacts, such as noise and air quality, affect the same receptors, for example people. The Commission considers that details should be provided as to how inter-relationships will be assessed in order to address the environmental impacts of the proposal as a whole. This will help to ensure that the ES is not a series of separate reports collated into one document, but rather a comprehensive assessment drawing together the environmental impacts of the proposed development as a whole. This is particularly important when considering impacts in terms of any permutations or parameters to the proposed development.
- 3.15 The cumulative impacts with other major developments will also need to be carefully identified such that the maximum adverse impacts can be shown to have been identified and assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:
- under construction;
 - permitted application(s), but not yet implemented;
 - submitted application(s) not yet determined;
 - projects on the Commission's Programme of Projects;
 - identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited; and

- identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

3.16 Further comments on the consideration of cumulative impacts are included in Appendix 2 of this advice.

3.17 Any proposed mitigation should be discussed and agreed with the appropriate consultees. Only mitigation measures which are a firm commitment or are likely should be identified in the ES and taken into account as part of the assessment.

3.18 Care should be taken in the preparation of the ES to ensure that all publications referred to within the technical reports are cited in the summary reference section of the ES.

Presentation

3.19 TW's attention is drawn to Appendix 2 of this advice regarding the presentation of the ES.

3.20 It may be useful to include a summary of the project activities within each Borough area in tabular form, such as illustrated below.

	Preferred Sites	Existing Uses	Proposed Uses	Tunnel Length
Ealing	Acton Storm Tanks	Open space, forming part of the landscaped area of the pumping station, and situated at the southernmost tip of the pumping station site.	<p>The site is required as a CSO interception site to connect the local CSO, known as the Acton Storm Relief sewer, to the main Thames Tunnel.</p> <p>The site would also be a reception site for the Tunnel Boring Machine (TBM) from the Hammersmith Pumping Station site.</p> <p>The storm tanks would continue to operate during and after the construction of the Thames Tunnel.</p>	0.07km

Matters Proposed to be Scoped Out by TW

3.21 TW has identified in the relevant sections of the Scoping Report the matters proposed to be 'scoped out'. These include the following matters identified in Table 3.2 of Part A:

- electromagnetic radiation (EMR) (construction and operation).
 - lighting (operation).
 - microclimate (construction and operation).
 - vibration (operation).
 - transport (operation).
- 3.22 Other matters in each section of Part B which are proposed to be scoped out are addressed in the Topic Areas section below.
- 3.23 As explained above, this advice does not constitute a scoping opinion made under Regulation 8 of the EIA Regulations. Therefore, although the Commission has provided Section 51 advice about scoping matters out the Applicant is encouraged to seek the views of relevant local planning authorities through consultation to ensure the scope of the EIA is focused on key impacts.
- 3.24 It should be noted that if information comes to light in the course of carrying out the assessment that indicates that matters which it is proposed to scope out should be included in the ES then it is for TW to consider whether to seek further Section 51 advice or, at the appropriate time, to request a scoping opinion.

Topic Areas

General Comments

- 3.25 Schedule 4, Parts 1 and 2 of the EIA Regulations, set out the information for inclusion in an ES.
- 3.26 Schedule 4, Part 1 of the EIA Regulations sets out the aspects of the environment likely to be significantly affected by the development which should include *'in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors'* (paragraph 19).
- 3.27 Part 2 sets out the minimum requirements and is included below for reference:

Schedule 4 Part 2

- A description of the development comprising information on the site, design and size of the development;
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects;
- The data required to identify and assess the main effects which the development is likely to have on the environment;

- An outline of the main alternatives studies by the Applicant and an indication of the main reasons for the Applicant's choice, taking into account the environmental effects;
- A non-technical summary of the information provided [*under the four paragraphs above*].

3.28 The Scoping Report has considered the environment under the following topics:

- Air quality and odour;
- Ecology (aquatic);
- Ecology (terrestrial);
- Historic environment;
- Land quality;
- Noise and vibration;
- Socio-economics;
- Townscape and visual;
- Transport;
- Water resources (groundwater);
- Water resources (surface water); and
- Project-wide.

3.29 The Commission notes that the Scoping Report sets out the draft structure of the ES under the following headings:

- Volume 1 Introduction;
- Volume 2 Background to the Project;
- Volume 3 Proposed development;
- Volume 4 Alternatives;
- Volume 5 Scoping and assessment;
- Volume 6 Assessment methodologies:
 - Air quality and odour;
 - Ecology (aquatic);
 - Ecology (terrestrial);
 - Historic environment;
 - Land quality;
 - Noise and vibration;
 - Socio-economics;
 - Townscape and visual;
 - Transport;
 - Water resources (groundwater);
 - Water resources (surface water); and
 - Project-wide.
- Volume 7 to 30: Site related effects (i.e. for each of the proposed sites):
 - Review of proposed development;

- Review of assessment methodology;
- Site specific assumptions and limitations;
- Baseline conditions;
- Assessment of construction effects;
- Assessment of operational effects;
- Cumulative and in combination effects;
- Mitigation measures – construction;
- Mitigation measures – operation;
- Residual effects – construction;
- Residual effects – operation; and
- Assessment summary matrix.

- Volume 31 Project-wide effects;
- Volume 32 Non Technical Summary.

3.30 The Commission considers that the topics identified in the Scoping Report encompass those matters identified in Schedule 4, Part 1, paragraph 19 of the 2009 EIA Regulations. However TW's attention is drawn to the possible need to consider the wider spatial effects associated with these topics (i.e. beyond the immediate area surrounding the site, downstream for example).

3.31 Each of the specialist topics are considered in turn below in the order and under the headings presented in each section of the Scoping Report: Part B. It should be noted that the general points made above and elsewhere in this advice are not repeated under each of the specialist topics. However the Commission recommends that TW should ensure that such issues are addressed fully before the ES is submitted.

Air quality and odour

3.32 The proposed development lies within a sensitive area for air quality management, within or near to a number of Air Quality Management Areas (AQMAs). A range of sensitive ecological receptors could also be affected by the project, including Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Sites of Special Scientific Interest (SSSIs) and Special Areas of Conservation (SACs). The Commission therefore recommends that potential related effects due to an increase in airborne pollution, especially during construction, are considered. Adverse changes to air quality should be assessed in relation to compliance with European air quality limit values, UK Air Quality Strategy objectives and AQMAs, where applicable.

3.33 The Commission suggests that the assessment should take account of pollutants/emissions and odours from the proposals and from related traffic generation during construction, operation and maintenance of the proposed development. Information to inform the ecological assessments, both terrestrial and aquatic should be provided.

- 3.34 The Commission recommends that dispersion modelling considers a range of possibilities and seeks to ensure that the worst case is assessed. The worst case may occur as a short term impact, during commissioning of the plant or as a result of temporary storage of waste on site during construction for example.
- 3.35 The Commission suggests that air quality and odour impacts resulting from on-site and off-site activity are assessed. This should include impacts around odour treatment plants/ventilation shafts, along access roads, local footpaths and from the management and disposal of construction materials and waste.
- 3.36 Consideration could be given to appropriate mitigation measures and to monitoring dust and odour complaints.

Ecology (aquatic)

- 3.37 The Commission recommends that surveys should be thorough, up to date and take account of other development proposed in the vicinity.
- 3.38 The Commission recommends that the proposals fully address the need to protect and enhance biodiversity, during construction, operation and maintenance. The assessment should cover all habitats, species and processes likely to be affected by the proposed development. Mitigation measures should be provided where appropriate.
- 3.39 It is recommended that the potential impacts on county level habitats is addressed in addition to those on international and nationally designated sites. The Commission notes the possible need for an Appropriate Assessment (AA) in view of the development site's location in relation to the Thames Estuary and other designated European sites (see section 4 of this advice).
- 3.40 The Commission suggests that the ES consider potential impacts on intertidal and subtidal habitats resulting from any new structures in the foreshore causing changes to river flows and sedimentary patterns.
- 3.41 It is recommended that the assessment take account of noise and vibration and of air quality impacts on ecology.
- 3.42 The Commission notes the potential for impacts on aquatic ecological receptors resulting from noise and vibration/air quality during the construction (and operational phases) of the proposed development, particularly on sites within or nearby to known/potentially sensitive habitats. In such circumstances the Commission suggests that the ES should include sufficient evidence to justify the impacts identified.

- 3.43 If heated, contaminated or altered water is discharged to the aquatic environment, it is recommended that the impacts on fish, benthic ecology and feeding birds are assessed within the ES. Potential changes to the physical, chemical, biological parameters and heavy metal loads in the aquatic environment could also be fully assessed.
- 3.44 The Commission notes that CSO overflows into the Thames will continue (although far less frequently) even once the project is operational (paragraph 2.3.1 of the Scoping Report). The impacts of such discharges on ecological receptors could be assessed within the ES.
- 3.45 The Commission recommends consideration of cumulative and inter-related impacts, and advises this is particularly relevant in terms of assessing the impacts on ecology.

Ecology (terrestrial)

- 3.46 The comments provided in respect of Ecology (aquatic) are also relevant for this topic.

Historic environment

- 3.47 The project is located within a sensitive environment, within or in close proximity to a range of heritage assets. These include listed buildings, Conservation Areas (CAs), Burial Spaces, World Heritage Sites and known/potential archaeological areas/sites. The Commission recommends that these should be addressed in the ES. Cross reference could be made to the Landscape and Visual section of the ES. Where sites are adjacent or within the foreshore the assessment could consider potential impacts on the opposite bank of the river.

Land quality

- 3.48 It is recommended that the baseline for the ES should explain in detail the extent of the study area and justify the reasons for this.
- 3.49 Cross reference could be made to relevant sections on surface and ground water quality in order to address the potential impacts of sediment along the foreshore.
- 3.50 Impacts resulting from the movement of earthworks (particularly material identified as contaminated) could be assessed, both onsite and offsite (e.g. at waste reception sites). The Commission notes the proposed intrusive investigation to inform the land quality assessment (paragraph 4.6.8). This investigation could include details of sources and pathways of contaminants and quantify effects on relevant receptors.

- 3.51 The terms of reference for the investigation, including the physical area and contaminants to be studied, could be agreed with the relevant statutory authorities and a suitable remediation strategy proposed.
- 3.52 The ES could explore opportunities for in-site / ex-situ remediation of any hot spots of contamination encountered and describe mitigation methods for dewatering excavations.
- 3.53 The Commission notes the statement at paragraph 19.4.7 of the Scoping Report that “The Thames Tunnels are situated within higher permeability Thanet Sand / Chalk and it therefore is possible that some contaminated soils may be found at considerable depth which may impact on construction workers during excavation”. Given the statement that “the potential impact of the operational tunnel would depend upon its construction” (paragraph 19.4.8), consideration may need to be given to assessing potential impacts during operation of the tunnels.
- 3.54 Therefore, the Commission recommends that a range of possibilities and worst case scenarios is assessed during construction, commissioning, operation and decommissioning as appropriate to ensure all permutations are addressed.

Noise and vibration

- 3.55 The Commission recommends that the methodology and choice of noise receptors is agreed with the Environmental Health Department of each London Borough (where applicable) and the EA.
- 3.56 Information could be provided on the types of vehicles and also on the type of plant to be used during the construction phase. Once operational, noise sources could be identified and measures identified to mitigate noise nuisance.
- 3.57 Noise impacts on people could be specifically addressed. This could include any potential noise disturbance at night and other unsocial hours such as weekends and public holidays.
- 3.58 Noise and vibration levels potentially affecting sensitive ecological receptors could be addressed, during construction and operation. The Commission recommends that a range of possibilities is considered such that the worst case is assessed. The worst case may include the need for corrective works (minor or major) as part of the ongoing maintenance of the project or to manage the effects of other future development projects.

- 3.59 Consideration could be given to assessing the impact of vibration levels on ground stability in respect of structures above and below ground and the potential effect on sensitive habitats and species. This could include buildings, roads, railways, bridges, utilities infrastructure and the London Underground.
- 3.60 The assessment could take account of the traffic assessment and consider noise and vibration impacts along access routes, especially during the construction phase. The noise and vibration assessment could also provide information to inform the ecological assessments, both terrestrial and aquatic.
- 3.61 Consideration could be given to monitoring noise complaints.

Socio-economics

- 3.62 The Commission notes that the scope of the assessment of the transport impacts will be agreed in consultation with the relevant local highway authorities and Transport for London. The Commission recommends on-going discussions and agreement, where possible, with such bodies.
- 3.63 Consideration could be given to how removal of the waste stored temporarily on site will be addressed, in terms of the form of transport and the possible traffic routing.
- 3.64 Mitigation measures such as a travel plan and local sourcing of materials could be considered in order to minimise transport impacts.
- 3.65 Account could be taken of the location of public rights of way and the impacts on them could be clearly identified, including within the wider area. A clear indication could be given as to how the development will affect the existing and future facilities along the river and what mitigation would be appropriate in the short and long term.
- 3.66 Consideration could be given to the effects on residents, workers and users of local facilities, public spaces, and rights of way of the potential increase in dust and noise, and the effect on air quality as a result of significantly increased daily traffic movements, particularly involving large vehicles such as HGVs. Transport of materials to and from sites by barge, where feasible, could contribute to mitigating such effects, although it is recognised that the construction of new jetties/wharfage facilities and the transporting by river could also give rise to significant effects. Consideration could be given to mitigation measures such as restricting HGV movements to certain periods.
- 3.67 Consideration could be given to the effects on residents and workers, and the potential consequences for the wider area, of the temporary removal/limiting of on street parking, the potential increased competition for limited parking spaces, and the introduction of

temporary traffic management measures. Consideration could be given to mitigation measures such as the provision of alternative parking areas.

- 3.68 It is noted that some traffic lanes may be closed resulting in diversions, or reduced in width, and some bus route diversions may be necessary. The impact of this on the local public transport system could be taken into account.
- 3.69 It is noted that some temporary and permanent access roads to individual sites may be created, which will restrict pedestrian movement, prevent or hinder access to public spaces, facilities and rights of way, and result in diversions to rights of way, e.g. the Thames Path. Consideration could be given to locating these accesses where they will be least disruptive.
- 3.70 The scoping report does not make any reference to the possibility of environmental effects caused by the attraction or disturbance and displacement of nuisance species such as insects, rats, pigeons or foxes, particularly during the construction period. Consideration could be given to environmental management plans and the implementation of mitigation measures to address nuisance species.

Townscape and visual

- 3.71 It is recommended that account is taken of any updates to legislation and policy, in particular the need to reference Planning Policy Statement 5 (PPS 5) [(rather than Planning Policy Guidance 15 and 16 (PPG 15 and 16)], together with the need to liaise with the local planning authorities to ensure that the latest local policies are taken into account.
- 3.72 Visual impacts may affect receptors on both sides of the river, and may include e.g. residents on both sides of the Thames, users of the Thames Path and other rights of way, river users, visitors to the London Eye. It is noted that a Zone of Theoretical Visibility (ZTV) plan is to be developed. The Commission recommends that all potential sensitive receptors are considered and viewpoints are agreed with the relevant local authorities. The ES could describe the model used, and provide information on the area covered, the timing of any survey work, and the methodology used. The location of viewpoints could be agreed with the local authorities.
- 3.73 Consideration could be given to the visual impact of permanent operational structures, such as those associated with ventilation, on historical features in the townscape such as listed buildings, bridges and river walls, Historic Parks and Gardens, and CAs. It is noted that some sites lie within, contain, or are adjacent or near to these features. Careful consideration could be given to the form, siting and use of

materials and colours of the ventilation columns and buildings in order to minimise any adverse visual impacts.

- 3.74 Some sites are within protected strategic views of important London landmarks, and mitigation measures during construction could seek to minimise any impact on these views.
- 3.75 It is noted that some opportunities may exist for improving parts of the townscape and riverscape once construction works have finished and sites are restored. It is noted that permanent changes may be made, as part of the proposal, to the river foreshore and river wall (some stretches of which are listed) in some locations, and may present an opportunity to make visual improvements.
- 3.76 It is noted that some mature trees and hedges may be lost, resulting in impacts on views, and also loss of screening, and that consideration will be given to minimising this, and replacement planting made, including of mature specimens, where possible.
- 3.77 It is noted that some permanent hard standing access routes for inspection equipment and vehicles will be required. These could be designed to be least obtrusive in the townscape and sympathetic to the existing character of the area.

Transport

- 3.78 The types of jobs generated by the construction phase could be considered in the context of the available workforce in the area.
- 3.79 The assessment criteria could be locationally specific and consider the potential significance of the impacts of the proposal within the local and regional context.
- 3.80 Consideration could be given to the potential effect on amenity of nearby residents and users of open space, footpaths, allotments and the River Thames, as appropriate, due to disturbance (including diversions) caused during the construction and operational phase.
- 3.81 It is noted that there may be some temporary and permanent loss of employment land and a need for temporary/permanent relocation of some businesses. Consideration could be given to the effects on trade, including local spending, and employment, and potential loss of amenity for local residents and workers.
- 3.82 It is noted that some residents, such as those on houseboats, and water-based businesses may experience access problems and may need to be relocated temporarily or permanently, and that potential design alternatives or alternative moorings will be considered, along with compensatory measures.

- 3.83 It is noted that there could be effects on tourism and related businesses, including river based recreation such as river tours, floating bars and restaurants etc. The effect on any future expansion plans of businesses temporarily or permanently affected by the proposals could be taken into account. It is understood that some piers will be temporarily unavailable (e.g. Millennium Pier) and effects on users could be significant. Where piers are relocated, the effects on the alternative location of the construction of a new pier could be taken into consideration. It is noted that the use of existing alternative piers may be promoted as a mitigation measure.
- 3.84 Consideration could be given to the effect on amenity for office workers, as a result of temporary or limited unavailability of nearby public spaces, facilities and public rights of way, the temporary relocation of local businesses, and the diversion of roads, paths and river services.

Water resources (groundwater)

- 3.85 It is noted that limited effects are anticipated on the flow and quality of the secondary (minor) aquifers, for which suitable mitigation measures should be considered.
- 3.86 The Commission notes that limited effects are anticipated on any EA licensed and unlicensed abstractions. However where potential impacts arise the ES could include sufficient evidence to justify the impacts and mitigation identified.
- 3.87 In the construction phase the use of concrete, grout and bentonite could reduce the quality of the groundwater in aquifers and source protection zones where these are present across the project, and abstractions.
- 3.88 It is also noted that the presence of the shafts could provide a sources-pathways-receptor (S-P-R) link to the aquifers and connected chalk where these are present. In such circumstances the ES could include sufficient evidence to justify the impacts and explain the mitigation identified.
- 3.89 In the operational phase the flow could be impacted by the physical presence of the tunnels underground and the quality could be affected by leakage from the tunnels. In such circumstances the ES could include sufficient evidence to justify the impacts and explain the mitigation identified.
- 3.90 It is recommended that mitigation measures are addressed and that reference is made to other regimes (such as pollution prevention). Ongoing monitoring could also be addressed and agreed with the relevant authorities to ensure that any mitigation measures are effective.

Water resources (surface water)

- 3.91 Surface water is the potential pathway for discharge of liquids to groundwater and coastal waters, and the Commission suggests that the impacts of climate change, in terms of increased run-off and rises in sea level could be taken into account in the ES.
- 3.92 Potential impacts on the existing public sewer network could be addressed, including the need to address impacts arising from vibration during the construction works.
- 3.93 The Commission recommends that mitigation measures are addressed and reference made to other regimes [such as pollution prevention guidance (PPG)]. On-going monitoring could also be addressed and agreed with the relevant authorities to ensure that any mitigation measures are effective.
- 3.94 The Commission notes that the construction of the connection tunnels throughout the project is not proposed to impact on water receptors (the Thames Tideway and other tributaries into the Thames). It is noted that the methodology follows the Source – Pathway – Receptor (S-P-R) model based on standard EIA and WFD assessment methodology to indicate where potential pollution effects are likely.
- 3.95 It is noted that surface water is discussed for construction and operational phases, and mitigation is proposed, and that no direct impacts are anticipated on the Thames Tideway due to most sites being relatively far from the river].
- 3.96 Discharge of potentially contaminated water from the dewatering of the receiving shaft construction has the potential to cause a significant effect if discharged untreated to the Thames Tideway.
- 3.97 Contamination and heavily sediment laden water could enter the Thames Tideway drainage and lead to water quality deterioration in the construction phase.
- 3.98 There is potential for a direct source-pathway-receptor to the Thames and other streams, brooks and tributaries due to the lack of defences. In such circumstances the Commission suggests that the ES includes sufficient evidence to justify the impacts and mitigation identified.
- 3.99 The Commission recommends that the ES includes sufficient evidence to justify the impacts and mitigation identified.
- 3.100 It is noted that water quality modelling of the Thames pre and post construction would be undertaken to assess the significance of the improvements locally and more widely through London. The

Commission notes that no mitigation is required for the operational stage as there will be water quality improvements.

Project Wide

- 3.101 The Commission notes the approach to project wide impacts within the Scoping Report. The Commission considers that in the event of a DCO application being submitted, the project will be considered as a whole, rather than as a series of related but separate linear schemes assessed on a site by site basis. The Commission suggests that in assessing the potential environmental project-wide effects the same approach is taken, and that the assessment of such effects is presented accordingly within the ES.
- 3.102 The Commission stresses the importance of ensuring that the ES is not prepared as a series of disparate reports. The ES should also consider in full the inter-relationships between aspects and cumulative impacts associated with the proposed development.

4.0 OTHER INFORMATION

Habitats Regulations Assessment

- 4.1 The Commission notes that reference is made to the Conservation of Habitats and Species Regulations 2010 ('the Habitats Regulations') assessment (see paragraphs 1.3.10 and 4.3.9 of Part A of the Scoping Report). It is the developer's responsibility to provide sufficient information to the competent authority to enable them to carry out an appropriate assessment AA should this prove necessary.
- 4.2 TW should note that the competent authority will be either the Commission or the Secretary of State. This will depend upon the legislation that applies at the time.
- 4.3 In the event that this project is a NSIP, TW's attention is drawn to The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 ('the APFP Regulations'), and the need to include information identifying European sites to which the Habitats Regulations applies and any Ramsar site or potential Special Protection Area (pSPA) which may be affected by a proposal. The information to be submitted should be sufficient for the Commission to make an AA of the implications for the site if required by regulation 61(1) of the Habitats Regulations.
- 4.4 The report to be submitted under Regulation 5(2)(g) of the APFP with the application must deal with two issues: the first is to enable a formal assessment by the competent authority of whether there is a likely significant effect; and the second, should it be required, is to enable the carrying out of an AA by the competent authority.
- 4.5 When considering aspects of the environment likely to be affected by the development; including flora, fauna, soil, water, air and the inter relationship between these, consideration should be given to the designated sites in the vicinity of the proposed development.
- 4.6 Further information with regard to the Habitats Regulations assessment process is provided in the Commission's pre-application IPC Guidance Note 2, and Advice note ten: Habitats Regulations Assessment, both available on our website.

Transboundary Effects

- 4.7 The Commission notes that TW has not indicated whether the proposal is likely to have significant impacts on any other European Member State.

- 4.8 Regulation 24 of the EIA Regulations *inter alia* requires the Commission to notify other European Economic Area (EEA) States and publicise a DCO application if the Commission is of the view that the proposal is likely to have significant effects on the environment of another EEA Member State, and where relevant to consult with the EEA State affected. The Commission considers that where Regulation 24 applies, this is likely to have implications for the Commission's examination of a DCO application.
- 4.9 The Commission notes that the Scoping Report has not considered the potential for transboundary impacts. If considered necessary, TW could consider making available to the relevant planning authority any additional information about potential significant transboundary effects and identify the affected EEA State(s). For NSIP developments, in order to ensure the efficient and effective examination of applications within the statutory timetable under Section 98 of the Act, it is important that this information is made available to the Commission at the earliest opportunity to facilitate timely consultations, if required, with other EEA States in accordance with Regulation 24.
- 4.10 The ES will also need to address this matter in each topic area and summarise the position on transboundary effects of the proposed project, taking into account inter-relationships between any impacts, and cumulative impacts, in each topic area.

Applicant's Consultation

- 4.11 It is understood that TW is carrying out non statutory consultation to 'shadow' the procedures under the Act. It is recommended that if TW is intending to agree the consultation programme with the relevant local authority, preliminary environmental information should be provided to assist the local authority in commenting on the most effective means of consulting on this environmental information.
- 4.12 Where consultation responses have resulted in important changes to the ES, such comments could usefully be reported and considered in the ES. This reporting could also assist TW in the preparation of its consultation report which must be submitted with any application for development consent.

Health Impact Assessment

- 4.13 The Commission suggests that the ES could acknowledge the potential health impacts associated with the improvements to river water quality along the River Thames, and resulting from dust, pollutants and contaminants generated during the construction and operational phases. The ES could provide an analysis of these impacts.

- 4.14 The Commission considers that it is a matter for TW to decide whether to submit a stand-alone Health Impact Assessment (HIA) and suggests that TW have particular regard to the responses received from the relevant consultees regarding health. The methodology for the HIA, if prepared, could be agreed with the relevant statutory consultees and take into account mitigation measures for acute risks.

Other Regulatory Regimes

- 4.15 The Commission recommends that TW clearly states what regulatory areas are addressed in the ES, and describes in the ES all relevant authorisations, licences, permits and consents that are necessary to enable operations to proceed. In addition, it should be clear that any likely significant effects of the proposed development which may be regulated by other statutory regimes have been properly taken into account in the ES.
- 4.16 It will not necessarily follow that the granting of consent under one regime will ensure consent under another regime. For those consents not capable of being included in an application for consent under the Act, TW should note that a level of assurance or comfort from the relevant regulatory authorities that the design or plan is acceptable and likely to be approved by them will be required by the Commission before a recommendation or decision on any application is made. Applicants are encouraged to make early contact with other regulators. Information from Applicants about progress in obtaining other permits, licences or other consents and confirmation that there is no obvious reason why they will not subsequently be granted will be helpful in supporting an application for development consent to the Commission.

APPENDIX 1

INDICATIVE LIST OF CONSULTEES

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INDICATIVE LIST OF CONSULTEES

This information has been provided in response to a Section 51 request from Thames Water (the Applicant) dated 8 March 2011. The table below is an indicative list of the consultation bodies that the IPC would consult under Regulation 9(1) (b) of the EIA Regulations, were the Commission required to issue a scoping opinion for the project. It is based on the Phase 1 Consultation Zone for the project received by the Commission on 24 March 2011 and does not prescribe the bodies who the Applicant should consult under Section 42 of the Planning Act 2008 as and when the project is an NSIP. When meeting their statutory pre-application obligations, the Applicant must make diligent inquiries, carry out their own investigations and take legal advice, as appropriate. The Applicant should also have regard to the relevant guidance prepared by the Commission, which is available from the IPC website.

Consultation Body²	When to Consult	Relevant Organisation
The Relevant Regional Planning Body	All proposed applications likely to affect land in England and Wales.	Greater London Authority City Hall The Queen's Walk London SE1 2AA
The Health and Safety Executive	All cases.	Health and Safety Executive Risk Communications' Policy Unit Chief Scientific Advisor's Group 3.3 Redgrave Court Merton Road Bootle L20 7HS NSIP.applications@hse.gsi.gov.uk
The Relevant Strategic Health Authority	All proposed applications likely to affect land in England and Wales.	NHS London Southside 105 Victoria Street London SW1E 6QT

² Schedule 1 to the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Natural England	All proposed applications likely to affect land in England.	Natural England Consultation Service Hornbeam House Electra Way Crewe Business Park Crewe Cheshire CW1 6GJ consultations@naturalengland.org.uk
The Historic Buildings and Monuments Commission for England	All proposed applications likely to affect land in England.	English Heritage 1 Waterhouse Sq 138-142 Holborn London EC1N 2ST
The Historic Buildings and Monuments Commission for England	All proposed applications likely to affect land in England.	English Heritage Maritime Archaeology Team Fort Cumberland Portsmouth PO4 9LD
The Relevant Fire and Rescue Authority	All cases.	London Fire Brigade 169 Union Street London SE1 0LL
The Relevant Police Authority	All cases.	Metropolitan Police Authority 10 Dean Farrar Street London SW1H 0NY
The Environment Agency	All proposed applications likely to affect land in England and/or Wales.	The Environment Agency Thames Regional Office Kings Meadow House Kings Meadow Road Reading, Berkshire RG1 8DQ julie.foley@environment-agency.gov.uk (national contact) edward.telford@environment-agency.gov.uk (Thames, London - North East) james.togher@environment-agency.gov.uk (Thames, London - North East)
The Commission for Architecture and The Built Environment	All proposed applications likely to affect land in England.	CABE at Design Council 34 Bow Street London WC2E 7DL Thomas.Bender@designcouncil.org.uk

The Relevant Regional Development Agency	All cases.	London Development Agency Palestra 97 Blackfriars Road London SE1 8AA
The Equality and Human Rights Commission	All proposed applications likely to affect land in England and Wales.	Equality and Human Rights Commission 3 More London Riverside Tooley Street London SE1 2RG
The Commission for Sustainable Development	All cases.	Sustainable Development Commission Room 101 3-8 Whitehall Place London SW1A 2HH Please note that following the Coalition Government's spending review, the Sustainable Development Commission (SDC) who are prescribed as a statutory consultee for the purposes of the Planning Act 2008 ceased operations on 31 March 2011. Defra has taken on a small number of the SDC's functions, including taking on the SDC's stakeholder engagement function. Following correspondence dated 27 April 2011, the Sustainable Development Unit of Defra confirmed that they had not taken on the role of SDC as a prescribed consultee for the purposes of the Planning Act 2008.
The Homes and Communities Agency	All proposed applications likely to have an effect on its areas of responsibility.	Homes and Communities Agency Maple House 7th Floor 149 Tottenham Court Road London W1T 7BN
The Joint Nature Conservation Committee	All proposed applications likely to affect the marine environment.	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

The Maritime and Coastguard Agency	All proposed applications likely to affect the maritime or coastal environment, or the shipping industry.	Maritime & Coastguard Agency Spring Place 105 Commercial Road Southampton Hants SO15 1EG
The Marine and Fisheries Agency (now the Marine Management Organisation - English Waters)	All proposed applications likely to affect the marine area in England and Wales.	Marine Management Organisation (MMO) Lancaster House Hampshire Court Newcastle Upon Tyne NE4 7YH
The Civil Aviation Authority	All proposed applications relating to airports or which are likely to affect an airport or its current or future operation.	Civil Aviation Authority CAA House 45-59 Kingsway London WC2B GTE Baggy.Smailes@caa.co.uk
The Highways Agency	All proposed applications likely to affect road or transport operation and/or planning on roads for which the Secretary of State for Transport is the highway authority.	The Highways Agency The Cube 199 Wharfeside Street Birmingham West Midlands B1 1RN

The Relevant Highways Authority	All proposed applications likely to have an impact on the road network or the volume of traffic in the vicinity of the proposal.	<p>The Head of Highways within each 'B' local authority (as defined by Section 43 of the Planning Act 2008):</p> <p>Barking and Dagenham London Borough Council Newham London Borough Council Greenwich London Borough Council Tower Hamlets London Borough Council Westminster City Council Southwark London Borough Council Wandsworth London Borough Council Hammersmith and Fulham London Borough Council Lambeth London Borough Council Lewisham London Borough Council City of London Corporation London Borough of Kensington and Chelsea London Borough of Ealing London Borough of Hounslow London Borough of Richmond upon Thames</p> <p>See Local Authority section below for address details.</p>
Transport for London	All proposed applications likely to affect transport within, to or from Greater London.	<p>Transport for London Windsor House 42-50 Victoria Street London SW1H 0TL</p>
The Rail Passengers Council	All proposed applications likely to affect rail passenger transport.	<p>Rail Passenger Council Passenger Focus 1 Drummond Gate Pimlico London SW1V 2QY mike.hewiston@passengerfocus.org.uk</p>
The Disabled Persons Transport Advisory Committee	All proposed applications likely to affect access to transport for disabled people.	<p>Disabled Persons Transport Advisory Committee 2/23 Great Minister House 76 Marsham Street London SW1P 4DR dptac@dft.gsi.gov.uk</p>

The Coal Authority	All proposed applications that lie within areas of past, present or future coal mining.	The Coal Authority 2 Lichfield Lane Mansfield Nottinghamshire NG18 4RG planningconsultation@coal.gov.uk
The Office Of Rail Regulation	All proposed applications likely to affect the rail transport industry.	Office of Rail Regulation Customer Correspondence Team Manager 1 Kemble Street London WC2B 4AN
Approved Operator	All proposed applications likely to affect the rail transport industry.	Network Rail Infrastructure Ltd 1 Eversholt Street London NW1 2DN
Approved Operator	All proposed applications likely to affect the rail transport industry.	Network Rail (CTRL) Ltd Kings Place 90 York Way London N19AG
The Gas and Electricity Markets Authority	All proposed applications likely to affect gas and electricity markets.	OFGEM 9 Millbank London SW1P 3QE
The Water Services Regulation Authority	All proposed applications likely to affect the water industry in England and Wales.	OFWAT 20th Floor Centre City Tower 7 Hill St Birmingham B5 4UA
The Relevant Waste Regulation Authority	All proposed applications likely to affect waste infrastructure.	Environment Agency (duplicate)

The British Waterways Board	All proposed applications likely to have an impact on inland waterways or land adjacent to inland waterways.	The British Waterways Board 1 Sheldon Square Paddington Central London W2 6TT
Trinity House	All proposed applications likely to affect navigation in tidal waters.	Trinity House Tower Hill London EC3N 4DH
The Health Protection Agency	All proposed applications likely to involve chemicals, poisons or radiation which could potentially cause harm to people.	Health Protection Agency 151 Buckingham Palace Road London SW1W 9SZ crce.ipccconsultations@hpa.org.uk

The Relevant Local Resilience forum	All cases.	<p>London Resilience Team Greater London Authority City Hall The Queen's Walk More London London SE1 2AA</p> <p>Note: The London Resilience Team website states that in London "there are six LRFs, bringing together groups of five or six boroughs": Central London - City, Kensington & Chelsea, Lambeth, Southwark, Tower Hamlets, Westminster; North Central London - Barnet, Camden, Enfield, Hackney, Haringey, Islington; North East London - Barking & Dagenham, Havering, Newham, Redbridge, Waltham Forest; South East London - Bexley, Bromley, Croydon, Greenwich, Lewisham; South West London - Kingston, Merton, Richmond, Sutton, Wandsworth; West London - Brent, Ealing, Hammersmith & Fulham, Harrow, Hillingdon, Hounslow.</p> <p>Hamish Cameron at the Greater London Authority explained that from 1 April 2011 the statutory LRF function transferred from each LRF to the London Resilience Forum.</p>
The Crown Estate Commissioners	All proposed applications likely to impact on the Crown Estate.	The Crown Estate 16 New Burlington Place London W1S 2HX
The Forestry Commission	All proposed applications likely to affect the protection or expansion of forests and woodlands.	Forestry Commission London Office 9th Floor, Riverwalk House 157-169 Millbank London SW1P 4RR
Greater London Authority ³	If the land to which the application relates is in Greater London.	Greater London Authority City Hall The Queen's Walk More London SE1 2AA

³ Section 42 (Planning Act 2008)

RELEVANT STATUTORY UNDERTAKERS: HEALTH BODIES (SECTION 16, ACQUISITION OF LAND ACT 1981)		
Strategic Health Authority	All proposed applications likely to affect their functions as statutory undertakers	NHS London (Duplicate)
NHS Foundation Trusts	All proposed applications likely to affect their functions as statutory undertakers	East London NHS Foundation Trust Trust Headquarters EastONE 22 Commercial Street London E1 6LP
		Central and North West London NHS Foundation Trust Greater London House Hampstead Road London NW1 7QY
		Royal Brompton and Harefield NHS Foundation Trust Royal Brompton Hospital Sydney Street London SW3 6NP
		The Royal Marsden NHS Foundation Trust Fulham Road London SW3 6JJ
		South London and Maudsley NHS Foundation Trust Bethlem Royal Hospital Monks Orchard Road Beckenham BR3 3BX
		Whittington Hospital NHS Trust Magdala Avenue London N19 5NF
Special Health Authorities	All proposed applications likely to affect their functions as statutory undertakers	National Institute for Health and Clinical Excellence MidCity Place 71 High Holborn London WC1V 6NA

		National Patient Safety Agency 4-8 Maple Street London W1T 5HD
		National Treatment Agency for Substance Misuse 6th Floor Skipton House 80 London Road London SE1 6LH
		NHS Litigation Authority 2nd Floor 151 Buckingham Palace Road London SW1W 9SZ
		The Health and Social Care Information Centre 7th Floor New Kings Beam House 22 Upper Ground London SE1 9BW
Primary Care Trusts	All proposed applications likely to affect their functions as statutory undertakers	NHS Barking & Dagenham The Clock House East Street Barking IG11 8EY
		NHS City and Hackney Commissioning Clifton House 75-77 Worship Street London EC2A 2EJ
		NHS Ealing 1 Armstrong Way Southall Middlesex UB2 4SA
		NHS Greenwich 31 - 37 Greenwich Park Street London SE10 9LR
		Hammersmith and Fulham PCT 4th Floor, Hammersmith Town Hall Extension King Street W6 9JU

		Hounslow PCT Sovereign Court 15-21 Staines Road Hounslow Middlesex TW3 3HR
		Kensington and Chelsea PCT Courtfield House St. Charles Hospital Exmoor Street London W10 6DZ
		Lambeth PCT 1 Lower Marsh London SE1 7NT
		Lewisham PCT Cantilever House Eltham Road London SE12 8RN
		NHS Newham Warehouse K 2 Western Gateway London E16 1DR
		Richmond and Twickenham PCT Thames House 180 High Street Teddington Middlesex TW11 8HU
		Southwark PCT 160 Tooley Street London SE1 2TZ
		NHS Tower Hamlets Aneurin Bevan House 81 Commercial Road London E1 1RD
		Wandsworth PCT 3rd Floor, Wimbledon Bridge House 1 Hartfield Road London SW19 3RU
		NHS Westminster 15 Marylebone Rd London NW1 5JD

Acute Trusts	All proposed applications likely to affect their functions as statutory undertakers	Barking, Havering and Redbridge Hospitals NHS Trust Barley Lane Goodmayes Essex IG3 8YB
		Newham University Hospital NHS Trust Glen Road Plaistow London E13 8SL
		Barts and The London NHS Trust 9 Prescott Street Aldgate London E1 8PR
		Homerton University Hospital NHS Foundation Trust Homerton Row London E9 6SR
		Imperial College Healthcare NHS Trust The Bays South Wharf Road St Mary's Hospital London W2 1NY
		University College London Hospitals NHS Foundation Trust 250 Euston Road London NW1 2PG
		Chelsea and Westminster Hospital NHS Foundation Trust Chelsea and Westminster Hospital 369 Fulham Road London SW10 9NH
		Ealing Hospital NHS Trust Uxbridge Road Southall UB1 3HW
		Moorfields Eye Hospital NHS Foundation Trust 162 City Road London EC1V 2PD

		<p>Guy's and St Thomas' NHS Foundation Trust Trust Offices Guy's Hospital Great Maze Pond London SE1 9RT</p>
		<p>West Middlesex University Hospital NHS Trust Twickenham Road Isleworth Middlesex TW7 6AF</p>
		<p>St George's Healthcare NHS Trust St George's Hospital Blackshaw Road Tooting London SW17 0QT</p>
		<p>King's College Hospital NHS Foundation Trust Denmark Hill London Greater London SE5 9RS</p>
		<p>Lewisham Healthcare NHS Trust University Hospital Lewisham Lewisham High Street London SE13 6LH</p>
		<p>South London Healthcare NHS Trust Queen Mary's Hospital Frognal Avenue Sidcup Kent DA14 6LT</p>
		<p>Oxleas NHS Foundation Trust Pinewood House Pinewood Place Dartford Kent DA2 7WG</p>
		<p>Great Ormond Street Hospital For Children NHS Trust Great Ormond Street London Greater London WC1N 3JH</p>

		Royal Free Hampstead NHS Trust Royal Free Hospital Pond Street London NW3 2QG
		Tavistock and Portman NHS Foundation Trust Tavistock Centre 120 Belsize Lane London NW3 5BA
Mental Health Trusts	All proposed applications likely to affect their functions as statutory undertakers	West London Mental Health NHS Trust Trust Headquarters St Bernard's Site Uxbridge Road Southall Middlesex UB1 3EU
		South West London and St George's Mental Health NHS Trust Springfield Hospital 61 Glenburnie Road London Greater London SW17 7DJ
Ambulance Trusts	All proposed applications likely to affect their functions as statutory undertakers	London Ambulance Service NHS Trust 220 Waterloo Road London SE1 8SD
RELEVANT STATUTORY UNDERTAKERS: SECTION 8, ACQUISITION OF LAND ACT 1981		
Railway	All proposed applications likely to affect their functions as statutory undertakers	Network Rail Infrastructure Ltd (Duplicate)
Railways		BRB Residuary Limited Whittles House 14 Pentonville Road London N1 9HF
Railways		Network Rail (CTRL) Ltd (Duplicate)
Light Railway		Docklands Light Railway (Management) Castor Lane London E14 0BR
Road Transport		Transport for London (Duplicate)
Water Transport		The British Waterways Board (Duplicate)

Navigation Authorities		Port of London Authority London River House Royal Pier Road Gravesend Kent DA12 2BG
Lighthouse		Trinity House (Duplicate)
Civil Aviation Authority		Civil Aviation Authority (Duplicate)
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)		NATS En-Route (NERL) Safeguarding Mailbox 25, NATS Corporate and Technical Centre 4000 Parkway Whiteley, Fareham Hampshire PO15 7FL
Universal Service Provider		Royal Mail Group 100 Victoria Embankment London EC4Y 0HQ
DEEMED STATUTORY UNDERTAKERS: VARIOUS		
Relevant Homes and Communities Agency	All proposed applications likely to affect their functions as statutory undertakers	Homes and Communities Agency (Duplicate)
Relevant Regional Development Agency	All proposed applications likely to affect their functions as statutory undertakers	London Development Agency (Duplicate)
Relevant Environment Agency	All proposed applications likely to affect their functions as statutory undertakers	Environment Agency (Duplicate)
Water and Sewage Undertakers	All proposed applications likely to affect their functions as statutory undertakers	Essex and Suffolk Water Sandon Valley House Canon Barns Road East Hanningfield Chelmsford CM3 8BD
		Thames Water Clearwater Court Vastern Road Reading RG1 8DB

DEEMED STATUTORY UNDERTAKERS: PUBLIC GAS TRANSPORTERS		
Public Gas Transporter	All proposed applications likely to affect their functions as statutory undertakers	British Gas Pipelines Limited Centrica Energy 1st Floor, Millstream East Maidenhead Road Windsor, Berkshire SL4 5GD
		Energetics Gas Limited International House Stanley Boulevard Hamilton International Technology Park Glasgow, G72 0BN
		ES Pipelines Ltd Hazeldean Station Road Leatherhead Surrey KT22 7AA
		Fulcrum Pipelines Limited FPLplantprotection@fulcrum.co.uk
		GTC Pipelines Limited Energy House Woolpit Business Park Woolpit Bury St Edmunds Suffolk IP30 9UP
		Independent Pipelines Limited Ocean Park House East Tyndall Street Cardiff CF24 5GT
		Intoto Utilities Limited Beswick House Green Fold Way Leigh Lancashire WN7 3XJ
		LNG Portable Pipeline Services Limited Cadache Bere Court Pangbourne Reading RG8 8HT

		National Grid Gas Plc (NTS) Pellipar House 1st Floor 9 Cloak Lane London EC4R 2RU
		National Grid Gas Plc (RDN) Pellipar House 1st Floor 9 Cloak Lane London EC4R 2RU
		Quadrant Pipelines Limited Ocean Park House East Tyndall Street Cardiff CF24 5GT
		Scotland GasNetworks Plc Inveralmond House 200 Dunkeld Road Perth PH1 3AQ
		Southern Gas Networks Plc St. Lawrence House Station Road Horley Surrey RH6 9HJ
		SSE Pipelines Ltd 55 Vastern Road Reading RG1 8BU
		The Gas Transportation Company Limited PO Box 310 Sydney Vane House Rue de Commerce St Peter Port GY1 3TB, Guernsey
		Utility Grid Installations Limited Energy House Woolpit Business Park Woolpit Bury St Edmunds Suffolk IP30 9UP

		Wales and West Utilities Ltd Wales and West House Spooner Close Celtic Springs Newport NP10 8FZ
DEEMED STATUTORY UNDERTAKERS: ELECTRICITY LICENCE HOLDERS		
Electricity Generators With CPO Powers	All proposed applications likely to affect their functions as statutory undertakers	Citigen (London) Limited Westwood Way Westwood Business Park Coventry CV4 8LG
		GDF Suez Marketing Limited 1 City Walk Leeds West Yorkshire LS11 9DX
Electricity Distributors With CPO Powers	All proposed applications likely to affect their functions as statutory undertakers	ECG (Distribution) Limited Sterling House Langston Road Loughton Essex IG10 3FA
		UK Power Networks (IDNO) Limited Newington House 237 Southwark Bridge Road London SE1 6NP
		Energetics Electricity Limited International House Stanley Boulevard Hamilton International Technology Park Glasgow South Lanarkshire G72 0BN
		ESP Electricity Limited (Duplicate)
		Independent Power Networks Limited Ocean Park House East Tyndall Street Cardiff CF24 5GT
		Southern Electric Power Distribution Plc 55 Vastern Road Reading RG1 8BU

		The Electricity Network Company Limited Energy House Woolpit Business Park Bury St Edmonds Suffolk IP30 9UP
Electricity Transmitters With CPO Powers	All proposed applications likely to affect their functions as statutory undertakers	National Grid National Grid House Warwick Technology Park Gallows Hill Warwick CV34 6DA Hector.pearson@uk.ngrid.com
		TC Robin Rigg OFTO Limited Two London Bridge London SE1 9RA
LOCAL AUTHORITIES: SECTION 43, PLANNING ACT 2008		
	'B' authority	Greater London Authority (Duplicate)
	'B' authority	City of London Corporation PO Box 270 Guildhall London EC2P 2EJ
	'B' authority	Court of the Common Council Town Clerks City of London Corporation Guildhall, PO Box 270 London EC2P 2EJ
	'A' authority	Surrey County Council Conquest House Wood Street Kingston upon Thames Surrey KT1 1AB
	'B' authority	Barking and Dagenham London Borough Council Civic Centre Dagenham RM10 7BN
	'B' authority	Newham London Borough Council Newham Dockside 1000 Dockside Road London E16 2QU

	'B' authority	Greenwich London Borough Council Town Hall Wellington Street Woolwich London SE18 6PW
	'B' authority	Tower Hamlets London Borough Council Town Hall Mulberry Place 5 Clove Crescent London E14 2BG
	'B' authority	Westminster City Council Westminster City Hall 64 Victoria Street London SW1E 6QP
	'B' authority	Southwark London Borough Council Town Hall 31 Peckham Road Southwark London SE5 8UB
	'B' authority	Wandsworth London Borough Council The Town Hall Wandsworth High Street Wandsworth London SW18 2PU
	'B' authority	Hammersmith and Fulham London Borough Council Town Hall King Street Hammersmith London W6 9JU
	'A' authority	London Borough of Islington Islington Town Hall Upper Street London N1 2UD
	'B' authority	Lambeth London Borough Council Town Hall Brixton Hall London SW2 1RW

	'B' authority	Lewisham London Borough Council Town Hall Catford London SE6 4RU
	'B' authority	London Borough of Kensington and Chelsea Town Hall Hornton Street Kensington London W8 7NX
	'B' authority	London Borough of Ealing Town Hall New Broadway Ealing London W5 2BY
	'B' authority	London Borough of Hounslow Civic Centre Lampton Road Hounslow Middx TW3 4DN
	'B' authority	London Borough of Richmond upon Thames The Civic Centre 44 York Street Twickenham Middlesex TW1 3BZ
	'A' authority	London Borough of Havering Environment and Planning Town Hall Main Road Romford RM1 3BB
	'A' authority	Redbridge Council PO Box No.2 Town Hall, 128-142 High Road Ilford Essex IG1 1DD
	'A' authority	London Bourough of Waltham Forest Ground floor, Waltham Forest Town Hall, Forest Road, Walthamstow E17 4JF

	'A' authority	London Borough of Hackney Town Hall 263 Mare Street Hackney London E8 1EA
	'A' authority	London Borough of Camden Camden Town Hall Judd Street, London WC1H 9JE
	'A' authority	London Borough of Harrow Civic Centre Harrow London HA1 2XF
	'A' authority	London Borough of Brent Brent House 349-357 High Road Wembley Middlesex HA9 6BZ
	'A' authority	London Borough of Hillingdon Civic Centre High Street Uxbridge Middlesex UB8 1UW
	'A' authority	Spelthorne Borough Council Council Offices Knowle Green Staines Middx TW18 1XB
	'A' authority	Elmbridge Borough Council Civic Centre High Street Esher Surrey KT10 9SD
	'A' authority	Kingston Upon Thames Royal Borough Council Guildhall High Street Kingston upon Thames Surrey KT1 1EU

	'A' authority	London Borough of Merton Merton Civic Centre London Road Morden Surrey SM4 5DX
	'A' authority	London Borough of Croydon Taberner House Park Lane Croydon London CR9 3JS
	'A' authority	London Borough of Bromley Civic Centre Stockwell Close Bromley London BR1 3UH
	'A' authority	London Borough of Bexley Wyncham House 207 Longlands Road Sidcup Kent DA15 7JH

NON-STATUTORY CONSULTEES

<p>These are not 'A' authorities as the Greater London Authority is not a 'local authority' under s43 of the PA 2008. It is assumed however that the GLA has similar functions to a County Council and is therefore treated as a 'B' authority for the purposes of the project. These local authorities are therefore identified on a</p>	Hertfordshire County Council County Hall Pegs Lane Hertford SG13 8DQ
	Buckinghamshire County Council County Hall Walton Street Aylesbury Buckinghamshire HP20 1UA
	Essex County Council County Hall Market Road Chelmsford Essex CM1 1GH
	Epsom & Ewell Borough Council PO Box 5 Town Hall The Parade Epsom, Surrey KT18 5BY

non-statutory basis.	Mole Valley District Council Pippbrook Dorking Surrey RH4 1SJ
	Reigate & Banstead Borough Council Town Hall Castlefield Road Reigate RH2 0SH
	London Borough of Sutton Civic Offices St Nicholas Way Sutton London SM1 1EA
	Tandridge District Council Council Offices Station Road East Oxted Surrey RH8 0BT
	Sevenoaks District Council Council Offices Argyle Road Sevenoaks Kent TN13 1HG
	Dartford Borough Council Civic Centre Home Gardens Dartford Kent DA1 1DR
	Three Rivers District Council Three Rivers House Northway Rickmansworth Hertfordshire WD3 1RL
	South Bucks District Council Council Offices Windsor Road Slough Bucks SL1 2HN

		<p>Slough Borough Council Town Hall Bath Road Slough Berkshire SL1 3UQ</p>
		<p>London Borough of Barnet Barnet House 1255 High Road Barnet London N20 0EJ</p>
		<p>Enfield Council Civic Centre Silver Street Enfield EN1 3XY</p>
		<p>Broxbourne Borough Council Bishops' College Churchgate Cheshunt Hertfordshire EN8 9XQ</p>
		<p>Welwyn Hatfield District Council The Council Offices Campus East Welwyn Garden City Hertfordshire AL8 6AE</p>
		<p>Hertsmere Borough Council Civic Offices Elstree Way Borehamwood WD6 1WA</p>
		<p>Thurrock Borough Council Civic Offices New Road Grays Essex RM17 6SL</p>
		<p>Brentwood Borough Council Town Hall Ingrave Road Brentwood Essex CM15 8AY</p>

		Epping Forest District Council Civic Offices, High Street, Epping, Essex, CM16 4BZ
		Kent County Council County Hall Maidstone Kent ME14 1XQ
		London Borough of Haringey Alexandra House 10 Station Road Haringey London N22 4TR

Please note that this indicative list of consultees have been identified in accordance with the Commission's Advice Note 3 'Meeting the Commission's Obligations' (March 2010). Whilst the non-statutory consultees have been identified by the Commission, as they are not prescribed consultees the duty imposed under Regulation 9 (3) of the EIA Regulations does not apply to them.

APPENDIX 2

PRESENTATION OF ENVIRONMENTAL STATEMENT

Appendix 2

PRESENTATION OF THE ENVIRONMENTAL STATEMENT

An ES is described under the EIA Regulations as a statement:

- ‘(a) that includes such of the information referred to in Part 1 of Schedule 4 as is reasonably required to assess the environmental effects of the development and of any associated development and which the Applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile; but
- (b) that includes at least the information required in Part 2 of Schedule 4’.

(Regulation 2)

Schedule 4, Parts 1 and 2 of the EIA Regulations, set out the information for inclusion in an ES. Part 2 sets out the minimum requirements and is included below for reference:

Schedule 4 Part 2

- a description of the development comprising information on the site, design and size of the development;
- a description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects;
- the data required to identify and assess the main effects which the development is likely to have on the environment;
- an outline of the main alternatives studied by the Applicant and an indication of the main reasons for the Applicant’s choice, taking into account the environmental effects;
- a non-technical summary of the information provided [*under the four paragraphs above*].

The APFP Regulations (SI 2264) set out the requirements for information which must be provided as part of the DCO application. Applicants may also provide any other documents considered necessary to support the application. Information which is not environmental information (defined in Regulation 2 of the EIA Regulations) need not be replicated or included in the ES.

The Commission reminds TW that the purpose of an ES is to inform the decision making process. The ES should therefore be clear and practical so that it assists and does not confuse decision making. The Commission draws the attention of TW to *Advice Note Nine: Using the Rochdale Envelope (February 2011)*, which addresses the use of the Rochdale Envelope Approach under the Act.

The Commission advises that the ES should be laid out clearly with a minimum amount of technical terms and should provide a clear, objective and

realistic description of the likely significant impacts of the proposed development. The information should be presented so as to be comprehensible to the specialist and non-specialist alike.

The Commission recommends that the ES be concise, with technical information placed in appendices.

ES Indicative Contents

The Commission emphasises that the ES should be a 'stand alone' document in line with best practice and case law.

Schedule 4, Part 1 of the EIA Regulations sets out the aspects of the environment likely to be significantly affected by the development which should include '*in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors*' (paragraph 19).

The content of the ES should include as a minimum those matters set out in Schedule 4, Part 2 of the EIA Regulations. This includes the consideration of alternatives, which the Commission recommends could be addressed as a separate chapter in the ES.

Traffic and transport is not specified as a topic for assessment under Schedule 4; although in line with good practice the Commission considers it is an important consideration *per se*, as well as being the source of further impacts in terms of air quality and noise and vibration.

Balance

The Commission recommends that the ES should be balanced, with matters which give rise to a greater number or more significant impacts being given greater prominence. Where few or no impacts are identified, the technical section may be much shorter, with greater use of information in appendices as appropriate.

The Commission considers that the ES should not be a series of disparate reports and stresses the importance of considering inter-relationships between factors and cumulative impacts.

Physical Scope

In general the Commission recommends that the physical scope for the EIA should be determined in the light of:

- the nature of the proposal being considered;
- the relevance in terms of the specialist topic;
- the breadth of the topic;
- the physical extent of any surveys or the study area; and
- the potential significant impacts.

Therefore, the Commission recommends that the study area for the EIA should include at least the whole of the application site, and include all offsite works. For certain topics, such as landscape and transport, the study area will need to be wider. The study area for each specialist topic should be clearly defined and determined by establishing the physical extent of the likely impacts in accordance with good practice.

The Commission considers that the study areas should be agreed, wherever possible, with the relevant statutory consultees and local authorities.

Temporal Scope

The assessment should consider:

- environmental impact during construction works;
- environmental impacts on completion/operation of the development;
- environmental impacts a suitable number of years after completion of the development in order to allow for traffic growth or maturing of any landscape proposals; and
- environmental impacts associated with maintenance.

The Commission recommends that these matters should be set out clearly in the ES and that the suitable time period for the assessment should be agreed with the relevant statutory consultees.

The Commission considers that the duration of effects should use a standard terminology, which should be defined.

Baseline

The Commission recommends that the baseline should describe the position from which the impacts of the proposed development are measured. The baseline should be chosen carefully and, where possible, be consistent between topics.

The identification of a single baseline is to be welcomed in terms of the approach to the assessment, although the Commission considers that care should be taken to ensure that all the baseline data remains relevant and up to date. The Commission recommends that the baseline environment should be clearly explained in the ES, including any dates of surveys. Wherever possible the baseline should be agreed with the appropriate consultees.

For each of the environmental topics, the data source(s) for the baseline should be set out together with any survey work undertaken with the dates.

Identification of Impacts and Method Statement

Legislation and Guidelines

In terms of the EIA methodology, the Commission recommends that reference should be made to best practice and any standards, guidelines and legislation that have been used to inform the assessment. This should include guidelines prepared by relevant professional bodies.

In terms of other regulatory regimes, the Commission recommends that relevant legislation and all permit and licences required should be listed in the ES where relevant to each topic. This information should also be submitted with the application in accordance with the APFP Regulations.

In terms of assessing the impacts, the ES should approach all relevant planning and environmental policy – local, regional and national (and where appropriate international) – in a consistent manner.

Assessment of Effects and Impact Significance

The EIA Regulations require the identification of the '*likely significant effects of the development on the environment*' (Schedule 4, Part 1, paragraph 20). Therefore, the Commission considers it is imperative for the ES to define the meaning of 'significant' in the context of each of the specialist topics` and for significant impacts to be clearly identified.

The Commission recommends that the criteria should be set out fully and that the ES should set out clearly the interpretation of 'significant' in terms of each of the topics. Quantitative criteria should be used where available. The Commission considers that this should also apply to the consideration of cumulative impacts and impact inter-relationships.

Potential Environmental Impacts

The Commission considers these under Section 3: the ES Topic Areas of this Report.

Inter-relationship Impacts

The inter-relationship of impacts on receptors should be taken into account. These occur where a number of separate impacts, eg noise and air quality, affect receptors such as fauna.

The Commission considers that the inter-relationship between aspects of the proposed development should be assessed and that details should be provided as to how inter-relationships will be assessed in order to address the environmental impacts of the proposal as a whole.

Cumulative Impacts

The ES should describe the baseline situation and the proposed development within the context of the site and any other proposals in the vicinity.

The potential combination of impacts with other major developments will also need to be carefully identified such that the maximum adverse impacts can be shown to have been identified and assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:

- under construction;
- permitted application(s), but not yet implemented;
- submitted application(s) not yet determined;
- projects on the Commission's Programme of Projects;
- identified in the relevant Development Plan (and emerging Development Plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited; and
- identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

Details should be provided in the ES, including the types of development, location and key aspects that may affect the EIA and have been taken into account as part of the assessment.

Associated development

The ES should give equal prominence to any development which is associated with the proposed development to ensure that all the impacts of the proposal are assessed.

The Commission recommends that the Applicant should distinguish between development for which development consent will be sought and any other development. This distinction should be clear in the ES.

Alternatives

The ES must set out an outline of the main alternatives studied by the Applicant and provide an indication of the main reasons for the Applicant's choice, taking account of the environmental effect (Schedule 4 part 1 paragraph 18).

Matters should be included such as, *inter alia*, alternative design options and alternative mitigation measures. The justification for the final choice and evolution of the scheme development should be made clear. Where other sites have been considered, the reasons for the final choice should be addressed.

The Commission advises that the ES should give sufficient attention to the alternative forms and locations for the off-site proposals, where appropriate, and justify the needs and choices made in terms of the form of the development proposed and the sites chosen.

Mitigation Measures

Mitigation measures may fall into certain categories: namely avoid; reduce; compensate or enhance; and should be identified as such in the specialist sections (Schedule 4 part 1 paragraph 21). Mitigation measures should not be developed in isolation as they may relate to more than one topic area.

The effectiveness of mitigation should be apparent. Only mitigation measures which are a firm commitment should be taken into account as part of the assessment.

The application itself will need to demonstrate how the mitigation would be delivered, and only mitigation which can be shown to be deliverable should be taken into account as part of the ES.

It would be helpful if the mitigation measures proposed could be cross referred to specific provisions and/or requirements proposed within the draft DCO. This could be achieved by means of describing the mitigation measures proposed either in each of the specialist reports or collating these within a summary section on mitigation.

Transboundary Effects

The Commission recommends that consideration should be given in the ES to any likely significant effects on the environment of another Member State of the EEA. In particular, the Commission recommends consideration should be given to discharges to the air and sea and to potential impacts on migratory species.

Presentation

The Commission recommends that all paragraphs in the ES should be numbered. This is for ease of reference. Appendices must be clearly referenced, again with all paragraphs numbered. All figures and drawings should be clearly referenced.

Cross References and Interactions

The Commission recommends that all the specialist topics in the ES should cross reference their text to other relevant disciplines. Interactions between the specialist topics is essential to the production of a robust assessment, as the ES should not be a collection of separate specialist topics, but a comprehensive assessment of the environmental impacts of the proposal and how these impacts can be mitigated.

As set out in Schedule 4 Part 1 paragraph 23 of the EIA Regulations, the ES should include an indication of any technical difficulties (technical deficiencies or lack of know-how) encountered by the Applicant in compiling the required information.

Terminology and Glossary of Technical Terms

The Commission recommends that a common terminology should be adopted. This will help to ensure consistency and ease of understanding for the decision making process. For example, 'the site' should be defined and used only in terms of this definition so as to avoid confusion with, for example, the wider site area or the surrounding site.

A glossary of technical terms should be included in the ES.

Summary Tables

The Commission recommends that in order to assist the decision making process, Applicants may wish to consider the use of tables to identify and collate the residual impacts after mitigation. These would include the EIA topics, and inter-relationship and cumulative impacts.

A table setting out the mitigation measures proposed would assist the reader, and the Commission recommends that this would also enable Applicants to cross refer mitigation to specific provisions and requirements proposed to be included within any draft DCO.

The ES should also demonstrate how the assessment has taken account of this Section 51 advice and other responses to consultation. The Commission recommends that this may be most simply expressed in a table.

Bibliography

A bibliography should be included in the ES. The author, date and publication title should be included for all references.

Non Technical Summary

The EIA Regulations require a Non Technical Summary (Schedule 4 Part 1 paragraph 22). This should be a summary of the assessment in simple language. It should be supported by appropriate figures, photographs and photomontages.

Consultation

1.18 As the Commission does not have jurisdiction to issue a scoping opinion in this case, the duty under Regulation 8(6) of the EIA Regulations to consult on the information provided does not therefore arise. The Commission has however within this advice provided advice to TW on the relevant consultation bodies as if the project were an NSIP (see Appendix A). This notwithstanding it is suggested that TW pays particular regard to the responses of the bodies which TW has consulted on a non statutory basis, and that any changes to the scheme design in response to consultation should be addressed in the ES.

Environmental Management

The Commission advises that it is considered best practice to outline in the ES the structure of the Environmental Management and Monitoring Plan (EMMP) and safety procedures which will be adopted during construction and operation.