Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.

Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.

Soluble rocks are present within the ground. Many dissolution features may be present. Potential for difficult ground conditions are at a level where they should be considered. Potential for subsidence is at a level where it may need to be considered.

Soluble rocks are present within the ground. Numerous dissolution features may be present. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered.
Ground conditions predominantly non-plastic
Ground conditions predominantly low plasticity
Ground conditions predominantly medium plasticity
Ground conditions predominantly high plasticity
Ground conditions predominantly very high plasticity
Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on land use due to running conditions.

Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

Running sand conditions are probably present. Constraints may apply to land uses involving excavation or the addition or removal of water.
Figure 10.9
Geology and Soils - Historic
Contaminative Land Uses
Figure 10.9
Geology and Soils - Historic Contaminative Land Uses

Lower Thames Crossing Development Phase

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Sheet 4

Sheet 3

Sheet 2

Sheet 1

Heathrow Route Alignment Development Area Boundary Industrial Other Quarrying Mineral railway Pipelines [transport via] Railways Sewage Quarrying Industrial Other Historic Tanks

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Figure 10.9
Geology and Soils - Historic Contaminative Land Uses

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C.SOUBRY-SMITH

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Sheet 3
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Figure 10.9
Geology and Soils - Historic
Contaminative Land Uses

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Figure 10.10
Provisional Agricultural Land Classification Mapping

Grade 1
Grade 2
Grade 3
Grade 4
Non-Agricultural
Urban

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Figure 10.10
Provisional Agricultural Land Classification Mapping

Grade 1
Grade 2
Grade 3
Grade 4
Non-Agricultural
Urban
Figure 10.10
Provisional Agricultural Land Classification Mapping
Page 4 of 5
Figure 10.10
Provisional Agricultural Land Classification Mapping

Grade 1
Grade 2
Grade 3
Grade 4
Non-Agricultural
Urban

Lower Thames Crossing
Development Area Boundary
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Figure 10.12
Geology and Soils - Soilscape Mapping

Freely draining slightly acid loamy soils

Loamy soils with naturally high groundwater

Slightly acid loamy and clayey soils with impeded drainage

Shallow lime-rich soils over chalk or limestone

Loamy and clayey floodplain soils with naturally high groundwater

Loamy and clayey soils of coastal flats with naturally high groundwater

Freely draining slightly lime-rich loamy soils

Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils
Freely draining slightly acid loamy soils

Freely draining slightly acid but base-rich soils

Freely draining slightly lime-rich loamy soils

Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils

Loamy and clayey soils of coastal flats with naturally high groundwater

Loamy and clayey floodplain soils with naturally high groundwater

Loamy soils with naturally high groundwater

Slightly acid loamy and clayey soils with impeded drainage

Shallow lime-rich soils over chalk or limestone
SERVICES

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Sheet 1

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London EC3A 7DT

Lower Thames Crossing

Client

LOWER THAMES CROSSING
DEVELOPMENT PHASE

Drawing title

Rev
Status
Rev. Date
Purpose of revision
Drawn
Chck'd
Apprv'd

Scale
Date -

Figure 10.12
Geology and Soils - Soilscape Mapping

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METRES

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S.R.
C.S.S.

11/10/17

S2

Freely draining slightly acid loamy soils
Freely draining slightly acid but base-rich soils
Freely draining slightly lime-rich loamy soils
Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils
Loamy and clayey soils of coastal flats with naturally high groundwater
Loamy and clayey floodplain soils with naturally high groundwater
Loamy soils with naturally high groundwater
Slightly acid loamy and clayey soils with impeded drainage
Shallow lime-rich soils over chalk or limestone
Loamy and clayey soils with naturally high groundwater
Slightly acid loamy and clayey soils with impeded drainage
Loamy and clayey floodplain soils with naturally high groundwater
Loamy soils with naturally high groundwater
Slightly acid loamy and clayey soils
Shallow lime-rich soils over chalk or limestone
Freely draining slightly acid but base-rich soils
Freely draining slightly acid loamy soils

Figure 10.12
Geology and Soils - Soilscape Mapping
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Fig. 10.1 Geology and Soils - Soilscape Mapping

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R. Millman
S. Rimell
C. Soubry-Smith

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METRES

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Figure 11.1
Materials - Active Waste Transfer Stations and Landfill Sites

Sheet 1 of 3

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LTC Route Alignment
Development Area Boundary
Authorised Landfill Site
Active Waste Transfer Station
Materials - Active Waste Transfer Stations and Landfill Sites
Sheet 1 of 5

Figure 12.1 Noise and Vibration - Noise Important Areas and Proposed Monitoring Locations

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Sheet 2
Sheet 1

LTC Route Alignment
Development Area Boundary
Noise Important Area
Proposed Monitoring Location - to be confirmed

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Figure 12.1 Noise and Vibration - Noise Important Areas and Proposed Monitoring Locations

Sheet 2 of 5

LTC Route Alignment
Development Area Boundary
Noise Important Area
Proposed Monitoring Location - to be confirmed

# Short Term Monitoring Point (ST)
# Long Term Monitoring Point (LT)

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Figure 12.1 Noise and Vibration - Noise Important Areas and Proposed Monitoring Locations

Sheet 3 of 5
Figure 12.1  Noise and Vibration - Noise Important Areas and Proposed Monitoring Locations

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METRES

LTC Route Alignment
Development Area Boundary
Noise Important Area
Proposed Monitoring Location - to be confirmed

# Short Term Monitoring Point (ST)
# Long Term Monitoring Point (LT)

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Figure 14.1: Road Drainage and the Water Environment - Surface Water Features; Flood Risk and Defences

- Sheet 2 of 5
- Scale 1:25,000
- Date: 11/10/2017
- Drawing number: P01
- For Information: R.M., S.R., C.S.S.
Figure 14.1: Road Drainage and the Water Environment - Surface Water Features; Flood Risk and Defences

Sheet 3 of 5

1:25,000

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Figure 14.1 Road Drainage and the Water Environment - Surface Water Features; Flood Risk and Defences
Sheet 4 of 5

Scale: 1:25,000

Drawing number: 00000000-DR-LE-00004

Drawn: R.MILLMAN
Checked: S.RIMELL
Approved: C.SOUBRY-SMITH

Date: 11/10/2017

For Information: R.M.

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Figure 14.1  
Road Drainage and the Water Environment - Surface Water Features; Flood Risk and Defences  
Sheet 5 of 5
Figure 14.3
Road Drainage and the Water Environment
Superficial Aquifer Designations

Kilometres

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S.R. RIMELL
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P01

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S2
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## Figure 14.5

### Road Drainage and the Water Environment - Surface Water and Groundwater Bodies - Water Framework Directive Data

<table>
<thead>
<tr>
<th>Status</th>
<th>Current Ecological Status</th>
<th>Groundwater Source Protection Zones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Zone I - Inner protection zone</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>Zone II - Outer protection zone</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td>Zone III - Total catchment</td>
</tr>
</tbody>
</table>

### Zone of Special Interest
- Extent of historical (c. 1965) saline intrusion of Chalk aquifer, as defined by 150 mg/L chloride concentration contour (Water Resources Board, 1972, The Hydrogeology of the London Basin)

---

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Figure 14.5
Road Drainage and the Water Environment - Surface Water and Groundwater Bodies - Water Framework Directive Data

LTC Route Alignment
Development Area Boundary
Groundwater Abstraction Licence Locations
Surface Water Abstraction Licence Locations

Current Ecological Status
Good
Moderate
Poor

Groundwater Source Protection Zones
Zone I - Inner protection zone
Zone II - Outer protection zone
Zone III - Total catchment

Zone of Special Interest
Extent of historical (c. 1965) saline intrusion of Chalk aquifer, as defined by 150 mg/L chloride concentration contour (Water Resources Board, 1972, The Hydrogeology of the London Basin)

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Figure 14.5
Road Drainage and the Water Environment - Surface Water and Groundwater Bodies - Water Framework Directive Data

Sheet 3 of 5

Current Ecological Status
Good
Moderate
Poor

Groundwater Source Protection Zones
Zone I - Inner protection zone
Zone II - Outer protection zone
Zone III - Total catchment

Zone of Special Interest
Extent of historical (c. 1965) saline intrusion of Chalk aquifer, as defined by 150 mg/L chloride concentration contour (Water Resources Board, 1972, The Hydrogeology of the London Basin)
Figure 14.5
Road Drainage and the Water Environment - Surface Water and Groundwater Bodies - Water Framework Directive Data
Sheet 4 of 5

Current Ecological Status
- Good
- Moderate
- Poor

Groundwater Source Protection Zones
- Zone I - Inner protection zone
- Zone II - Outer protection zone
- Zone III - Total catchment

Zone of Special Interest
Extent of historical (c. 1965) saline intrusion of Chalk aquifer, as defined by 150 mg/L chloride concentration contour (Water Resources Board, 1972, The Hydrogeology of the London Basin)
Figure 16.1
Cumulative Effects - Current Planned 'Other Developments' Within Study Area

Tier 1 (b): Permitted applications, whether under the PA2008 or other regimes, but not yet implemented

Tier 1 (c): Submitted applications, whether under the PA2008 or other regimes but not yet determined

Tier 2: Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted.

Tier 3: Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; or Site allocations identified in the relevant Development Plan; or Site allocations identified in other plans and programmes (as appropriate)

Note: No Tier 1 (a) applications have been shortlisted within the scope for Cumulative Effects, therefore only applications in the Tier 1 categories above are present on this drawing.

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Lower Thames Crossing

Cumulative Effects - Current Planned 'Other Developments' Within Study Area

Sheet 3 of 3

Tier 1 (b): Permitted applications, whether under the PA2008 or other regimes, but not yet implemented

Tier 1 (c): Submitted applications, whether under the PA2008 or other regimes but not yet determined

Tier 2: Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted.

Tier 3: Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; or Site allocations identified in the relevant Development Plan; or Site allocations identified in other plans and programmes (as appropriate)

Note: No Tier 1 (a) applications have been shortlisted within the scope for Cumulative Effects, therefore only applications in the Tier 1 categories above are present on this drawing.

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