



EAST PARK ENERGY

East Park Energy

EN010141

Environmental Statement

Volume 2 – Technical Appendices

Appendix 8-3: Watercourse Crossing Assessment

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Infrastructure Planning (Applications: Prescribed Forms and
Procedure) Regulations 2009: Regulation 5(2)(a)

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EAST PARK ENERGY

Planning Act 2008

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Forms and Procedure) Regulations 2009

Environmental Statement Volume 2 – Technical Appendices

Appendix 8-3: Watercourse Crossing Assessment

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1.0 INTRODUCTION

1.1 Introduction

- 1.1.1 This Watercourse Crossing Assessment has been prepared as Appendix 8-3 to the Environmental Statement (ES) for the application for development consent for the East Park Energy project (the 'Scheme').
- 1.1.2 The 'Site' for the Scheme is located to the north-west of the town of St Neots, and is across two administrative areas; Bedford Borough Council (BBC) (a unitary authority) and Huntingdonshire District Council (HDC) (a two-tier authority with Cambridgeshire County Council). The Site location is shown on **ES Vol 3 Figure 1-1: Site Location [EN010141/DR/6.3]**. The Site area extends to approximately 773 hectares (ha).
- 1.1.3 A number of watercourses and drains within the Site will be crossed by the access tracks, therefore necessitating an assessment of the watercourse crossings. This report provides details of the watercourses at the locations of the crossings, summarising baseline bed and bank conditions and flow conditions at the time of visiting. Based upon this baseline review of the watercourse at each location, a crossing type (structure) is proposed. It is anticipated that these proposals will be reviewed and structures sized according to peak flow assessments post-consent.

1.2 Watercourse Crossing Survey Methodology

- 1.2.1 A site visit was conducted in June 2025. Each watercourse crossing location was recorded by GPS and photographs taken of the crossing location and vistas upstream and downstream of the crossing. The following details were recorded at each crossing to characterise the watercourse:
- Channel width and depth;
 - Bank profile and stability;
 - Channel planform and pool riffle development;
 - Instream features such as bars, erosion, deposition; and

- Anthropogenic features.

1.3 Assumptions

- 1.3.1 The information and conclusions drawn within this document are intended only as an early stage indication. The final designs, construction details and/or improvements to the proposed crossing locations during construction/operation of the Scheme will be the responsibility of the appointed contractor, and agreed with the Lead Local Flood Authority (LLFA).
- 1.3.2 Watercourses occur at topographic lows within a landscape, therefore additional measures during construction, such as sand bags, straw bales and geotextile screen, will be considered and deployed along the margins of watercourse crossings, in combination with other measures to protect the water environment from water pollution during construction (further details of which are set out in the **outline Surface Water Management Plan (oSWMP) [EN010141/DR/7.13]** and **outline Construction Environmental Management Plan (oCEMP) [EN010141/DR/7.3]**).

1.4 Regulatory Legislation

- 1.4.1 The Water Framework Directive (WFD) provides the principal legislation with regards to the water environment. The aims of the WFD are to provide protection to, and to enhance the quality of water bodies, including groundwater and surface water. The key objectives of the WFD relevant to this assessment are to:
- Prevent further deterioration, protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems; and
 - To establish a framework of protection of inland surface waters, transitional waters, coastal waters and groundwater.
- 1.4.2 This assessment therefore must have due regard to the requirements of the WFD, to ensure that any activities proposed either in, or near to watercourses




as part of the Scheme, must not have a detrimental impact upon these objectives.

- 1.4.3 Most watercourses assessed within this appendix are ordinary watercourses, which are defined as those watercourses which are not a main river. The Land Drainage Act (1991)¹ (amended by the Flood and Water Management Act 2010), requires that all built over/within watercourses, will require an Ordinary Watercourse Consent.
- 1.4.4 One main river is also crossed, the Pertenhall Brook, however the existing crossing on the watercourse will be maintained.
- 1.4.5 Regard is had for Cambridgeshire County Council's culvert policy². According to this policy document, the Council is generally opposed to culverting of a watercourse due to the adverse ecological, flood risk, human safety and aesthetic impacts (as well as other effects). Each application to culvert a watercourse would be reviewed on its own merits, though approval would only be given if there is no reasonably practicable alternative or the detrimental effects would be so minor that a more costly alternative would not be justified. Where crossing of a watercourse is necessary (rather than diverting or moving development elsewhere), an open span crossing is stated as being preferential.
- 1.4.6 No equivalent guidance is available from Bedford Borough Council.

2.0 WATERCOURSE CROSSING ASSESSMENT




- 2.1.1 The site visit (carried out in June 2025) was conducted in hot, dry ($>20^{\circ}\text{C}$) conditions after an exceptionally dry spring period across the region. Flow conditions throughout the Site were subsequently extremely low or zero. The hydrograph for the gauging station at Hail Weston on the River Kym indicated a stage height of 0.030 m and flow of $0.02\text{ m}^3/\text{s}$ (less than Q10 flows) during the duration of the site visit.
- 2.1.2 The location of proposed watercourse crossings is given by figure **ES Vol 3 Figure 2-3: Indicative Crossing Plans [EN010141/DR/6.3]**. The majority of watercourse crossings are crossings of manmade field drains running along field boundaries, rather than natural channels. Each crossing location is described below with tabulated details given to describe the existing bed and bank conditions including approximate cross-sectional measurements. Where new crossings are required, the proposed crossing type is also given (which is generally either buried culvert or open span crossing).
- 2.1.3 In all cases where permanent new watercourse crossings are required, in line with Cambridgeshire County Council's policy for culverts², open span crossings have in almost all cases been proposed. An exception to this is Crossing 52 (C52) where the use of a single span bridge is deemed to be impractical on account of the deck width required (this is the primary access point for the BESS and substation). There are cases where existing crossings will be utilised, some of which are culvert features. It is considered that it would be less environmentally disruptive to utilise existing crossings where possible, than to construct a new crossing. Each existing crossing will be assessed to confirm its structural integrity and suitability for its intended use by a structural engineer, prior to utilisation during either the construction or operational phases of the Scheme.

Crossing C01

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C01	Flat fields on either side	1.5 upstream from bridge	1.8 upstream from bridge	1.2 (to top of bank/deck)	V-shape wingwalls providing stability out 2m from crossing, up and downstream. Channel otherwise stabilised by vegetation (grasses)	Single channel, shallow. Gently meandering channel downstream through vegetation. Soft soil bed. Upstream largely rural catchment (arable farmland and forest) area of ~26km².	n/a.	Existing bridge 4.2m deck width. 3.1m width arch upstream, box shape outlet downstream. Appears to be natural bed underneath crossing. Ford crossing located 10m downstream of bridge.
								
Upstream arch opening					Downstream of crossing facing Outlet (rectangular shape)		Downstream view from bridge deck	

 <p>WHS East Park C51 30.06.2025 16:21 52.27701, -4.42466</p>		 <p>WHS East Park 3.1 m box outlet 30.06.2025 16:24 52.27695, -4.42463</p>
Existing Crossing (view from north)		Downstream Outlet (rectangular)
Proposed Crossing Type:	Existing crossing to be maintained	

Crossing C02




Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C02	Expansive fields, gently sloping northwards (field drain)	n/a - dry at time of survey	1.8	1.2	Stable banks, heavy vegetation growth obscuring both banks in photos	Single channel, field drain, reinforced by vegetation. Soft soil bed. Very small contributing catchment, likely 200m downstream of flow split in drain.	n/a.	
 <div> <div>WHS</div> <div>East Park</div> <div>C02</div> <div>30.06.2025 16:35</div> <div>52.27568, -42621</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C02</div> <div>30.06.2025 16:35</div> <div>52.27568, -42622</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C02</div> <div>30.06.2025 16:35</div> <div>52.27568, -42622</div> </div>		
View upstream of Proposed Crossing			View downstream of Proposed Crossing			Channel at proposed crossing location		






View Across Proposed Crossing Site

Proposed Crossing Type:	Proposed open span crossing, maintaining natural channel bed and banks
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Crossing C03




Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C03	Expansive fields, gently sloping (field drain)	n/a - dry at time of survey	1.5	1.0	Steep earth bank stabilised by mixture of long grass and shorter maintained grass	Straight gently sloping channel. Small contributing catchment, crossing appears to be 300m from upstream extent (head) of drain.	n/a.	Existing circular culvert under track, 0.3m diameter
								
Upstream of Crossing			Existing Crossing location			Downstream of Crossing		
Proposed Crossing Type:	Existing crossing to be maintained.							

Crossing C05a / C05b

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C5b	Expansive fields, relatively flat (field drain)	n/a - mostly dry during visit, occasional ponding observed	4.5	2.5	Earth bank stabilised by mixture of long grass and shorter maintained grass	Gently meandering. Contributing catchment area of 11.9km² is very rural, majority arable farmland.	n/a.	-
								
Upstream view					Downstream view			
								
Proposed Crossing Location								

 <div>WHS East Park C5 01.07.2025 11:14 52.26682, -4.1030</div>		 <div>WHS East Park C5 01.07.2025 11:13 52.26682, -4.1030</div>		 <div>WHS East Park C5 01.07.2025 11:14 52.26682, -4.1030</div>	
Stream bed		Upstream Bed		Downstream Bed	
Proposed Crossing Type:	Temporary construction access. Proposed Bailey Bridge crossing, maintaining natural channel bed and banks				

Crossing C06



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C06	Expansive fields, relatively flat	n/a - dry at time of visit	1.6m	1.1m	Stable banks, vegetation obscuring most of channel	Single channel - field drain, located on 45° bend of field ditch, otherwise straight with a very gentle gradient. Small contributing catchment, majority arable farmland. Complex network of upstream drains.	n/a.	Existing box (brick) culvert 0.4m wide, 0.5m height. Existing deck width 4.6m.
 <div> <div>WHS</div> <div>East Park</div> <div>01.07.2025 11:06</div> <div>52.26264, -41151</div> </div>					 <div> <div>WHS</div> <div>East Park</div> <div>01.07.2025 11:06</div> <div>52.26263, -41142</div> </div>			
Upstream view					Existing crossing			
 <div> <div>WHS</div> <div>East Park</div> <div>C6 headwall</div> <div>01.07.2025 11:02</div> <div>52.26261, -41154</div> </div>								
Headwall								

 <p>WHS East Park C06 01.07.2025 11:00 52.26252 - 41159</p>		 <p>WHS East Park C6 01.07.2025 11:05 52.26261 - 41154</p>		 <p>WHS East Park C6 01.07.2025 11:05 52.26261 - 41154</p>
Stream bed		Upstream channel		Downstream channel
Proposed Crossing Type:	Existing Crossing will be maintained			



Crossing C07

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C07	Expansive fields on either bank, relatively flat	n/a - dry at time of visit	2.5	1.5	Earth banks with significant vegetation growth including large shrubs and trees, channel obscured from view	Single channel, crossing located 15m from right angle bend in channel. Unclear direction of flows – likely to be a flow split very near to this location – though both discharge to the Keysoe Brook. Very small contributing catchment (likely less than 1km ² , though may partially include village of Keysoe)	n/a.	No photos available for this crossing, notes only.
Proposed Crossing Type:		Proposed open span crossing for access track, maintaining the natural channel bed and banks						

Crossing C08



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform	Pool Riffle Development	Comments
C08	Expansive fields, relatively flat	n/a - dry at time of visit	2.0	1.6	Earth banks with significant vegetation growth, including large shrubs	Single channel on gently sweeping bend. Field drain. Soft soil bed with occasional trees within channel. Shallow gradient. Complex upstream network of drains, small contributing catchment, likely less than 3km², largely rural.	n/a	-
 <div>WHS East Park 01.07.2025 11:26 52.25885, -41067</div>					 <div>WHS East Park 01.07.2025 11:26 52.25885, -41067</div>			
Upstream					Downstream			
Proposed Crossing Type:		Proposed open span crossing for access track, maintaining the natural channel bed and banks						

Crossing C09

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C09	Expansive fields, relatively flat	n/a – dry at time of visit	2.2	0.8	Stable banks, significant growth of large shrubs and trees within channel and on banks near crossing site.	Drain connecting two larger networks, flow direction uncertain, though likely westwards. Relatively straight reach. Likely very small contributing catchment (less than 1km ²).	n/a.	-
 <div> <div>WHS</div> <div>East Park</div> <div>C9</div> <div>01.07.2025 11:29</div> <div>52.25757, -41083</div> </div>					 <div> <div>WHS</div> <div>East Park</div> <div>C9</div> <div>01.07.2025 11:29</div> <div>52.25757, -41084</div> </div>			
Upstream view					Downstream view			




			
Channel Bed at Crossing (earth bed visible)		Upstream Channel view	Downstream Channel view
Proposed Crossing Type:	Proposed open span crossing for access, maintaining natural channel bed and banks		

Crossing C10

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C10	Expansive fields, relatively flat	n/a – dry at time of visit	2.0	0.8	Shallow, stable banks	Single channel field drain, culvert located on bend, banks reinforced by vegetation. Gentle gradient. Very small contributing catchment (less than 1km²), entirely rural.	n/a.	1.5m top opening width for existing culvert, though heavy vegetation growth and soil accumulation has constricted opening. 6m deck width.
 <div> <div>WHS</div> <div>East Park</div> <div>C10 inlet</div> <div>01.07.2025 10:36</div> <div>52.25960, -40331</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C10 outlet</div> <div>01.07.2025 10:38</div> <div>52.25955, -40338</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C10 ds</div> <div>01.07.2025 10:35</div> <div>52.25957, -40337</div> </div>		
Inlet			Outlet			Downstream view		





	
<div>Existing Crossing location (view from downstream to upstream)</div> <div>Looking upstream (channel on left of track)</div>	
<div>Proposed Crossing Type:</div>	<div>Access track to utilise existing crossing.</div>

Crossing C11




Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C11	Expansive fields, relatively flat. 7m upstream of confluence.	n/a – dry at time of visit	1.9	0.9	Relatively shallow banks, coarse stone bed	Single channel field drain, immediately upstream of confluence with larger stream. Complex upstream network of drains, however catchment likely less than 1km² and almost entirely rural (arable farmland).	n/a.	Existing crossing deck width of 4.8m. Heavy vegetation meant unable to accurately determine existing culvert dimensions, roughly measured 1.5m width (rectangular), uncertain if natural bed under crossing.
 <div> <div>WHS</div> <div>East Park</div> <div>C11</div> <div>01/07/2025 10:45</div> <div>52.25924, -40451</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C11 outlet</div> <div>01/07/2025 10:46</div> <div>52.25928, -40453</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C11</div> <div>01/07/2025 10:45</div> <div>52.25923, -40451</div> </div>		
Inlet/Upstream			Outlet			Downstream		

			
Existing crossing looking north		Existing crossing looking south	
Proposed Crossing Type:	Access track to utilise existing crossing		

Crossing C12



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C12	Expansive fields, relatively flat	n/a – dry at time of visit	Too overgrown to measure - likely less than 2m	n/a	Shallow banks reinforced by significant vegetation growth,	Single channel field drain, 24m upstream of right angle bend – otherwise straight. Complex upstream network of drains, small contributing catchment, likely less than 2.5km², largely rural (arable farmland).	n/a.	Existing deck width of ~4m. Overgrowth too dense to accurately measure channel or culvert.
 <div>WHS East Park 01.07.2025 11:35 52.25452, -41493</div>					 <div>WHS East Park 01.07.2025 11:38 52.25463, -41481</div>			
Existing Crossing					Upstream			
 <div>WHS East Park 01.07.2025 11:34 52.25447, -41496</div>					 <div>WHS East Park 01.07.2025 11:34 52.25449, -41488</div>			
Downstream					Drain Channel			
Proposed Crossing Type:		Existing crossing to be maintained (assumed existing culvert)						

Crossing C13

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform	Pool Riffle Development	Comments
C13	Expansive fields, relatively flat	n/a – dry at time of visit	~4.0 (both)	~1.0 (both)	Soft soil banks stabilised by long grass	Straight sections of channel. Very small catchment for both, less than 0.5km ²	n/a.	Existing circular culverts under both crossings
 <div>WHS East Park 01.07.2025 12:12 52.25923, -1.39335</div>							 <div>WHS East Park 01.07.2025 12:13 52.25922, -1.39349</div>	
West ditch crossing							East ditch crossing	
 <div>WHS East Park 01.07.2025 12:12 52.25916, -1.39338</div>							Looking downstream from existing crossings over both east and west ditches	

 <p>WHS East Park 01.07.2025 12:12 52.25923, -39333</p>		 <p>WHS East Park 01.07.2025 12:13 52.25922, -39353</p>	
East ditch looking downstream		West ditch looking upstream	
Proposed Crossing Type	Horizontal drill under watercourses for 33kV cabling.		

Crossing C16

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C16	Expansive fields, relatively flat	n/a - dry at time of visit	2.2	1.2	Very shallow banks, mostly obscured by vegetation. Soft soil bed.	Single channel, straight field drain, banks reinforced by vegetation. Complex upstream network of drains, though catchment likely less than 1km ² and almost entirely rural (arable farmland).	n/a.	-
								
Upstream view					Downstream view			

 <div>WHS East Park 30.06.2025 15:43 52.26710, -38999</div>		 <div>WHS East Park 30.06.2025 15:44 52.26710, -38999</div>	
Channel bed		Proposed Crossing location	
Proposed Crossing Type:	Proposed access track (and 33kV Cabling), open span crossing to maintain natural bed and banks		



Crossing C17



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform	Pool Riffle Development	Comments
C17	Expansive fields, relatively flat	n/a – dry at time of visit	2.0	1.0	Shallow stable banks	Field drain, banks reinforced by vegetation. Complex network of drains mean the catchment is extremely difficult to define, likely less than 0.5km ²	n/a.	Ditches either side of road. Existing crossing over northern ditch (culverted).
 <div> <div>WHS</div> <div>East Park</div> <div>North</div> <div>30.06.2025 15:34</div> <div>52.26559, -38747</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>North</div> <div>30.06.2025 15:34</div> <div>52.26559, -38747</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>North</div> <div>30.06.2025 15:34</div> <div>52.26559, -38747</div> </div>		
Downstream view			Channel			Upstream view		





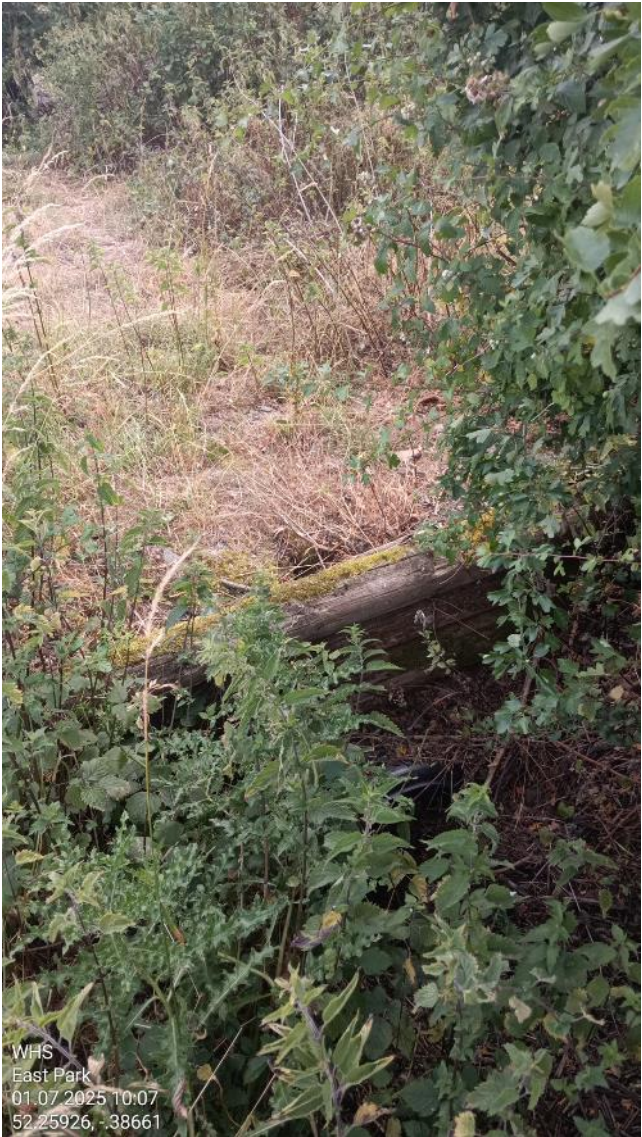
Crossing Site	
Proposed Crossing Type	Existing track crossing to be maintained.




Crossing C20

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C20	Expansive fields, relatively flat	n/a	~3.0	~1.8	Shallow stable banks. Soft soil bed.	Single channel field drain, banks reinforced by vegetation. Complex upstream network of drains, however catchment likely less than 1km² and largely rural (arable farmland), though likely drains the northern part of the village of Little Staughton.	n/a.	Channel inaccessible due to dense vegetation. Channel dry at time of visit
 <div> <div>WHS</div> <div>East Park</div> <div>Inaccessible</div> <div>01.07.2025 10:18</div> <div>52.26091, -38432</div> </div>						 <div> <div>WHS</div> <div>East Park</div> <div></div> <div>01.07.2025 10:19</div> <div>52.26117, -38438</div> </div>		
Downstream view						Upstream view		




 <p>WHS East Park 01.07.2025 10:19 52.26117, -38438</p>		 <p>WHS East Park 01.07.2025 10:21 52.26089, -38432</p>	
Crossing Site		View of channel	
Proposed Crossing Type:	Open span crossing for access track, maintaining natural channel		

Crossing C21

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C21	Expansive fields, relatively flat	n/a – dry at time of visit	2.0	1.2	Relatively shallow gradient banks up to existing track on left bank, trees line right bank	Single channel, field drain, banks reinforced by vegetation. Soft soil bed. Complex upstream network of drains, however catchment less than 1km ² and largely rural (arable farmland), though likely drains the northern part of the village of Little Staughton.	n/a.	Existing culverted crossing. 600mm diameter circular culvert. Existing deck width of 5.2m.
								
Upstream			Upstream Channel			Upstream headwall		


			
Downstream Channel		Culvert outlet	Downstream view
Proposed Crossing Type:	Propose to retain existing crossing (existing deck over 600mm circular culvert)		

Crossing C29

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C29	Expansive fields, gently sloping northwards	n/a – dry at time of visit	Could not be measured at time of visit.	Could not be measured at time of visit.	Shallow banks stabilised by vegetation	Single channel, field drain. Straight channel on gentle gradient. Very small upstream catchment, less than 1km², largely rural (arable farmland)	n/a.	Channel inaccessible due to overgrowth. Existing deck width ~6m.
 <div> <div>WHS</div> <div>East Park</div> <div>C29</div> <div>01.07.2025 11:56</div> <div>52.25326, -39896</div> </div>						 <div> <div>WHS</div> <div>East Park</div> <div>C29 overgrown</div> <div>01.07.2025 11:57</div> <div>52.25328, -39888</div> </div>		
Downstream view								
 <div> <div>WHS</div> <div>East Park</div> <div>C29</div> <div>01.07.2025 11:56</div> <div>52.25325, -39902</div> </div>						Upstream channel from deck		
Upstream view								




			
Existing Crossing view from West		Existing Crossing view from East	
Proposed Crossing Type:	Existing Crossing to be retained.		


Crossing C32

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform	Pool Riffle Development	Comments
C32	Expansive fields, gently sloping	n/a	2.2	1.7	Shallow banks stabilised by vegetation	Single channel, field drain. Catchment area less than 1km ² , entirely rural (arable farmland and woodland).	n/a.	
 <p>WHS East Park 30.06.2025 15:24 52.26280, -371150</p>		 <p>WHS East Park C32 30.06.2025 15:20 52.26264, -37143</p>		 <p>WHS East Park C32 30.06.2025 15:20 52.26264, -37143</p>				
Upstream view taken from downstream side of crossing		View looking Downstream		Channel bed downstream from crossing				



 <div>WHS East Park C32 30.06.2025 15:20 52.26264, -37143</div>		 <div>WHS East Park C32 30.06.2025 15:21 52.26251, -37138</div>	
Outlet		Inlet	
 <div>WHS East Park C32 30.06.2025 15:20 52.26264, -37143</div>		 <div>WHS East Park C32 30.06.2025 15:22 52.26257, -37150</div>	
Existing Crossing from West		Existing Crossing from East	
Proposed Crossing Type	Horizontal drill for 33kV Cabling.		

Crossing C33 / C34

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C33 / C34	Expansive fields, gently sloping	n/a – appeared dry at time of visit	~2 (heavily overgrown)	~2.5 (heavily overgrown)	Shallow banks stabilised by vegetation	Single channel, field drain, runs open channel for 150m upstream from the proposed crossing, then network of culverts downstream. Contributing catchment less than 1km², entirely rural (arable farmland and small areas of woodland).	n/a.	Existing crossing 30m downstream
 <div> <div>WHS</div> <div>East Park</div> <div>C34</div> <div>30.06.2025 13:02</div> <div>52.26139, -36004</div> <div>The Orchard, Garden Farm, Great Staughton, St. Neots PE19 5BE, UK</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C34</div> <div>30.06.2025 13:03</div> <div>52.26141, -36005</div> <div>The Orchard, Garden Farm, Great Staughton, St. Neots PE19 5BE, UK</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C34</div> <div>30.06.2025 13:03</div> <div>52.26141, -36005</div> <div>The Orchard, Garden Farm, Great Staughton, St. Neots PE19 5BE, UK</div> </div>		
Upstream view			Downstream view			Channel view		




<div><div><div>WHS</div><div>East Park</div><div>30.06.2025 13:03</div><div>52.26132, -1.36008</div><div>The Orchard, Garden Farm, Great Staughton, St. Neots PE19 5BE,</div><div>UK</div></div></div>	
View from existing track crossing, downstream of proposed crossing	
Proposed Crossing Type:	Open span crossing to maintain existing bed and banks.

Crossing C35

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C35	Expansive fields, flat	n/a – dry at time of visit	2.0	1.2	Shallow banks stabilised by vegetation. Soft soil bed.	Single channel, relatively straight field drain running down gentle gradient. Contributing catchment uncertain, though almost certainly less than 1km², entirely rural (arable farmland).	n/a.	-
 <p>WHS East Park 30.06.2025 12:58 52.26077, -35682 Unnamed Road, St. Neots PE19 5BD, UK</p>					 <p>WHS East Park C35 30.06.2025 12:59 52.26077, -35682 Unnamed Road, St. Neots PE19 5BD, UK</p>			
Downstream view					Upstream view			

 <p>WHS East Park 30.06.2025 12:59 52.26076, -35684 Unnamed Road, St. Neots PE19 5BD, UK</p>		 <p>WHS East Park 30.06.2025 12:59 52.26076, -35694 Unnamed Road, St. Neots PE19 5BD, UK</p>		 <p>WHS East Park 30.06.2025 12:59 52.26076, -35684 Unnamed Road, St. Neots PE19 5BD, UK</p>	
Downstream Channel		Crossing Point			
Proposed Crossing Type:		Open span crossing, maintaining natural channel bed and banks			

Crossing C36

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C36	Expansive fields, gently sloping	n/a – dry at time of visit	1.5	1.2	Relatively narrow banks stabilised by vegetation	Single channel, relatively straight field drain. Soft soil bed. Catchment size less than 0.5km².	n/a.	Ditch obscured by vegetation in photos
 <p>WHS East Park C36 30.06.2025 12:55 52.26152, -35295 Unnamed Road, St. Neots PE19 5BD, UK</p>			 <p>WHS East Park 30.06.2025 12:55 52.26152, -35295 Unnamed Road, St. Neots PE19 5BD, UK</p>			 <p>WHS East Park 30.06.2025 12:55 52.26152, -35295 Unnamed Road, St. Neots PE19 5BD, UK</p>		
Channel view from right bank			Channel looking downstream			Obscured channel		
Proposed Crossing Type			Trenching required at this location for 33kV cabling.					

Crossing C37



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C37	Expansive fields, gently sloping	n/a – dry at time of visit	1.5	1.2	Relatively narrow banks stabilised by vegetation	Single channel, relatively straight field drain. Catchment size less than 0.5km², land use entirely arable farming.	n/a.	Ditch obscured by vegetation. Existing culvert length ~11m, opening dimensions unconfirmed (heavily overgrown).
 <div> <div>WHS</div> <div>East Park</div> <div>Overgrown no visual on culvert</div> <div>30.06.2025 12:51</div> <div>52.26155, -35107</div> <div>Unnamed Road, St. Neots PE19 5BD, UK</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C37 eastwards</div> <div>30.06.2025 12:49</div> <div>52.26154, -35088</div> <div>Unnamed Road, St. Neots PE19 5BD, UK</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div></div> <div>30.06.2025 12:50</div> <div>52.26153, -35081</div> <div>Unnamed Road, St. Neots PE19 5BD, UK</div> </div>		
Overgrown culvert inlet			Downstream view			Obscured Channel downstream of crossing		



WHS
East Park
C37 culvert crossing track
30.06.2025 12:51
52.26161, -35108
Unnamed Road, St. Neots PE19 5BD, UK

Existing Crossing location	
Proposed Crossing Type	Existing Access crossing to be maintained. Trenching also required at this location for 33kV cabling.

Crossing C38




Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform	Pool Riffle Development	Comments
C38	Expansive fields, gently sloping northwards	n/a – dry at time of visit	1.6	1.2	Relatively narrow banks stabilised by vegetation	Single channel, relatively straight field drain. Catchment area less than 0.5km², entirely rural (arable farmland)	n/a.	Existing culvert crossing near this location, length ~6m, dimensions of culvert unable to confirm due to heavy growth.
 <p>WHS East Park C38 30.06.2025 12:45 52.26010, -34989 Unnamed Road, St. Neots PE19, UK</p>						 <p>WHS East Park C38 30.06.2025 12:45 52.26008, -34988 Unnamed Road, St. Neots PE19, UK</p>		
View looking Upstream						Looking across Channel		

		
Proposed Crossing Site		Looking towards existing track crossing location (culverted)
Proposed Crossing Type	Trenching across watercourse for laying of 33kV Cabling	




Crossing C40

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C40	Gently sloping fields to field drain	NA – dry at time of visit	1.9	1.7	Relatively shallow earth banks and bed, stabilised by grasses	Field drain, shallow gradient reach tracking field boundary and road (right and left bank respectively). Proposed crossing is 70m downstream from culverted section. Contributing catchment uncertain (complex connectivity of drains upstream), though almost certainly less than 1km² and entirely rural (arable farmland).	-	-
<div><p>WHS East Park C41 30.06.2025 12:25 52.25652, -33663 Moor Rd, St. Neots PE19 5BL, UK</p></div>						<div><p>WHS East Park C41 30.06.2025 12:24 52.25649, -33651 Moor Rd, St. Neots PE19 5BL, UK</p></div>		
View downstream								
<div><p>WHS East Park C41 30.06.2025 12:24 52.25649, -33651 Moor Rd, St. Neots PE19 5BL, UK</p></div>								
Channel bed						Crossing point		
Proposed Crossing Type:		Temporary construction access, buried culvert proposed to conserve natural channel bed						

Crossing C41 / C42




Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C42	-	-	-	-	-	-	-	No channel observed during visit at this location, neither is any channel distinguishable by LiDAR at this location. Mapped channel likely filled-in.
 <div>WHS East Park C42 no watercourse 30.06.2025 12:12 52.25556, -0.28337 Unnamed Road, St Neots PE19, UK</div>				 <div>WHS East Park C43 filled in just north of here 30.06.2025 12:14 52.25526, -0.28444 Unnamed Road, St Neots PE19, UK</div>				
View North				View East				View South
Proposed Crossing Type:		Temporary tracks proposed at this location however no watercourse crossing required, since mapped watercourse has been filled in.						

Crossing C43



Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C43	Expansive fields, relatively flat	n/a – dry at time of visit	1.5	1.0	Relatively narrow banks stabilised by vegetation	Single channel, field drain, soft bed. Contributing catchment area less than 1km² and entirely rural (arable farmland).	n/a	Existing circular culvert 15m length.
 <p>WHS East Park C44 30.06.2025 12:05 52.25477, -32706 Unnamed Road, St. Neots PE19, UK</p>			 <p>WHS East Park C44 30.06.2025 12:05 52.25477, -32706 Unnamed Road, St. Neots PE19, UK</p>			 <p>WHS East Park C44 30.06.2025 12:05 52.25476, -32708 Unnamed Road, St. Neots PE19, UK</p>		
Upstream view of channel from inlet			Existing culvert inlet location			Culvert inlet		

 <p>WHS East Park C44 30.06.2025 12:06 52.25479, -32702 Unnamed Road, St. Neots PE19, UK</p>		 <p>WHS East Park C44 30.06.2025 12:06 52.25479, -32701 Unnamed Road, St. Neots PE19, UK</p>	
Upstream channel and track view looking east		Existing crossing view looking southwest	
Proposed Crossing Type		Maintain existing culvert crossing.	

Crossing C46

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C46	Expansive fields, gentle slope to northwest	n/a – dry at time of visit	2.2	1.5	Relatively narrow channel bounded by existing track on one side.	Single channel field drain, gentle gradient. Contributing catchment area less than 1km² and entirely rural (arable farmland).	n/a.	-
 <p>WHS East Park C47 30.06.2025 11:58 52.25417, -32443 Unnamed Road, St. Neots, PE19, UK</p>			 <p>WHS East Park C47 30.06.2025 11:58 52.25420, -32443 Unnamed Road, St. Neots, PE19, UK</p>			 <p>WHS East Park C47 30.06.2025 11:58 52.25418, -32441 Unnamed Road, St. Neots, PE19, UK</p>		
Upstream			Channel at Proposed Crossing Site			Downstream		
Proposed Crossing Type:		Open span crossing to preserve natural bed and banks						



Crossing C48


Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C48	Expansive fields, relatively flat	n/a – dry at time of visit	1.2	1.5	Steep banks, channel incised into soft soil	Single channel field drain, soft bed. Contributing catchment area less than 1km ² and entirely rural (arable farmland).	n/a.	-
 <p>WHS East Park 30.06.2025 11:51 52.25355, -32181 Unnamed Road, St. Neots PE19, UK</p>					 <p>WHS East Park West 30.06.2025 11:53 52.25354, -32185 Unnamed Road, St. Neots PE19, UK</p>			
Channel bed at Proposed Crossing Site					View looking Downstream			




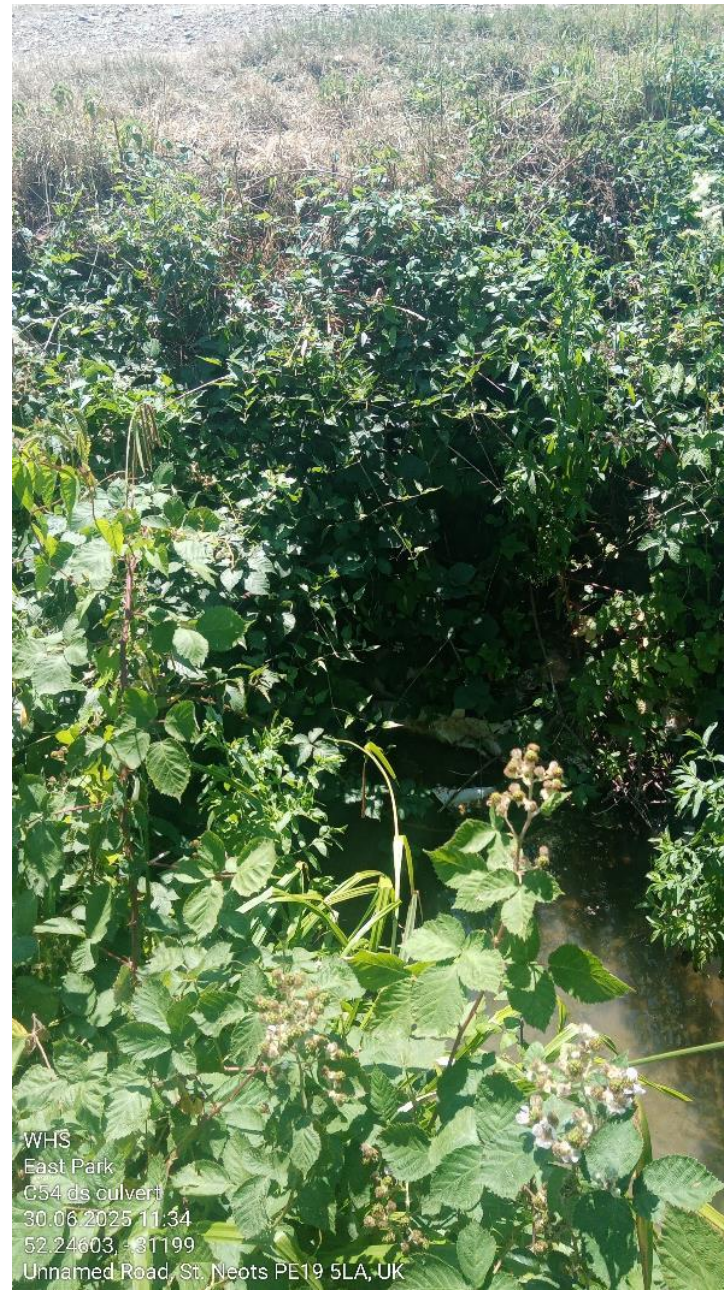

Proposed crossing viewed looking south	
Proposed Crossing Type	Trenching for 400kV Grid Connection cable crossing.

Crossing C52

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C52	Expansive fields, flat	n/a – dry at time of visit	1.8	1.4 to existing road level to the north	Shallow banks, reinforced by vegetation. Soft soil bed	Single channel, field drain, gentle gradient and relatively straight running along edge of field and B645. Contributing catchment area just under 1km², entirely rural (arable farmland).	n/a.	-
 <div> <div>WHS</div> <div>East Park</div> <div>C53</div> <div>30.06.2025 15:00</div> <div>52.26030, -31947</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C53</div> <div>30.06.2025 15:00</div> <div>52.26030, -31947</div> </div>			 <div> <div>WHS</div> <div>East Park</div> <div>C53</div> <div>30.06.2025 15:00</div> <div>52.26030, -31947</div> </div>		
Upstream view			Channel at crossing			Downstream		

	
<div> <div>Proposed Crossing view from northwest (B645)</div> </div>	
<div> <div>Proposed Crossing Type:</div> </div>	<div> <div>Bottomless arch culvert, maintaining natural channel bed</div> </div>

Crossing C53

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments			
C53	Expansive fields, relatively flat	0.5 – sluggish at time of visit with little flow	1.4	1.8 from bed to existing deck level	Shallow banks, reinforced by vegetation	Single channel, gently meandering brook, soft bed. Catchment area less than 1km², entirely rural, mixture of arable farmland and woodland.	n/a.	South Brook. Existing culvert 7m length, circular, dimensions not measurable due to significant vegetation growth in channel.			
 <p>WHS East Park C54 culvert inlet 30.06.2025 11:34 52.24597, -31.180 Unnamed Road, St. Neots PE19 5LA, UK</p>				 <p>WHS East Park C54 ds culvert 30.06.2025 11:34 52.24603, -31.199 Unnamed Road, St. Neots PE19 5LA, UK</p>				 <p>WHS East Park C54 upstream 30.06.2025 11:33 52.24600, -31.194 Unnamed Road, St. Neots PE19 5LA, UK</p>			
Inlet				Outlet				Upstream view of channel from deck			




Existing crossing from east





Existing crossing from north

Proposed Crossing Type	Temporary construction access. Existing crossing to be maintained.
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Crossing C54

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C54	Expansive fields, relatively flat	0.4 – sluggish at time of visit with little flow	1.3	1.6	Shallow banks, reinforced by vegetation	Single channel, gently meandering brook, soft bed. Catchment area less than 1km ² , entirely rural, mixture of arable farmland and woodland.	n/a.	South Brook, proposed crossing located 15m downstream from existing track crossing
 <div>WHS East Park</div>								
View downstream from existing track crossing								
Proposed Crossing Type			Horizontal drill for 400kV grid connection cabling.					




Crossing C55

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C55	Expansive fields, relatively flat	N/A – view of watercourse obscured	Not measurable because of dense hedgerow growing within channel – instead, measurements taken from LiDAR DTM which gives approximate width of 5m	LiDAR DTM suggests approximate depth of 0.7m (bed level compared to average surrounding ground levels)	NA	Field drain. Very small catchment area less than 0.5km², entirely rural (arable farmland).	n/a.	Channel appears to taper out immediately upstream of this location.
 <p>WHS East Park C56 30.06.2025 11:22 52.23984, -30788 Woodhouse Ln, Duloe, St. Neots PE19 5HR, UK</p>					 <p>WHS East Park C56 30.06.2025 11:22 52.23984, -30787 Woodhouse Ln, Duloe, St. Neots PE19 5HR, UK</p>			
View upstream of proposed crossing (watercourse underneath hedge planting to left of track)					View downstream of proposed crossing (watercourse underneath hedge planting to right of track)			
Proposed Crossing Type			Trench crossing of watercourse for 400kV grid connection cabling.					

Crossing C56a / C56b

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C56a / C56b	Expansive fields, relatively flat	n/a – dry at time of visit	1.5	1.0	Shallow grassy banks, stable with soft earth bed.	Very shallow gradient drain, field boundary on left bank, compacted gravel track on right bank. Upstream catchment of 2.8km², entirely rural (arable farmland).	n/a.	-
 <p>WHS East Park C57 30.06.2025 11:07 52.23623, -30367 Unnamed Road, St. Neots PE19, UK</p>			 <p>WHS East Park C57 30.06.2025 11:05 52.23618, -30367 Unnamed Road, St. Neots PE19, UK</p>			 <p>WHS East Park Downstream c57 30.06.2025 11:06 52.23616, -30369 Unnamed Road, St. Neots PE19, UK</p>		
Upstream view			Channel bed at crossing			Downstream view		
Proposed Crossing Type:		Bottomless arch culvert, maintaining natural channel bed for access track. Trenching proposed for 400kV grid connection cable.						

Crossing C58a / C58b

Crossing	Valley Shape	Wetted Width (m)	Bankfull Width (m)	Channel Max Depth (m)	Bank Profile and Stability	Channel Planform and upstream catchment	Pool Riffle Development	Comments
C58a / C58b	Shallow valley on either side, watercourse bordered by fields	1.2	4.0	1.5	Incised channel up to half meter depth, then broadens out to 4m at top. Top of banks stabilised by grasses, though bare earth near base.	Relatively flat, sluggish reach along the Duloe Brook, upstream catchment area of 9.5km², largely rural (arable farmland). Footbridge located 140m downstream	n/a.	Crossing located immediately downstream of a sewage pumping station
								
Cross channel view			Channel bed at crossing			Downstream view		
Proposed Crossing Type:		Temporary crossing using Bailey Bridge, maintaining both natural channel bed and banks						

3.0 REFERENCES

¹ Land Drainage Act 1991 (1991 c 59).

² Cambridgeshire County Council. 2013. Cambridgeshire's culvert Policy. [Online], available at: <https://www.cambridgeshire.gov.uk/asset-library/Cambridgeshires-Culvert-Policy.pdf> accessed on 11/08/2025