

# White Rose Carbon Capture and Storage (CCS) Project

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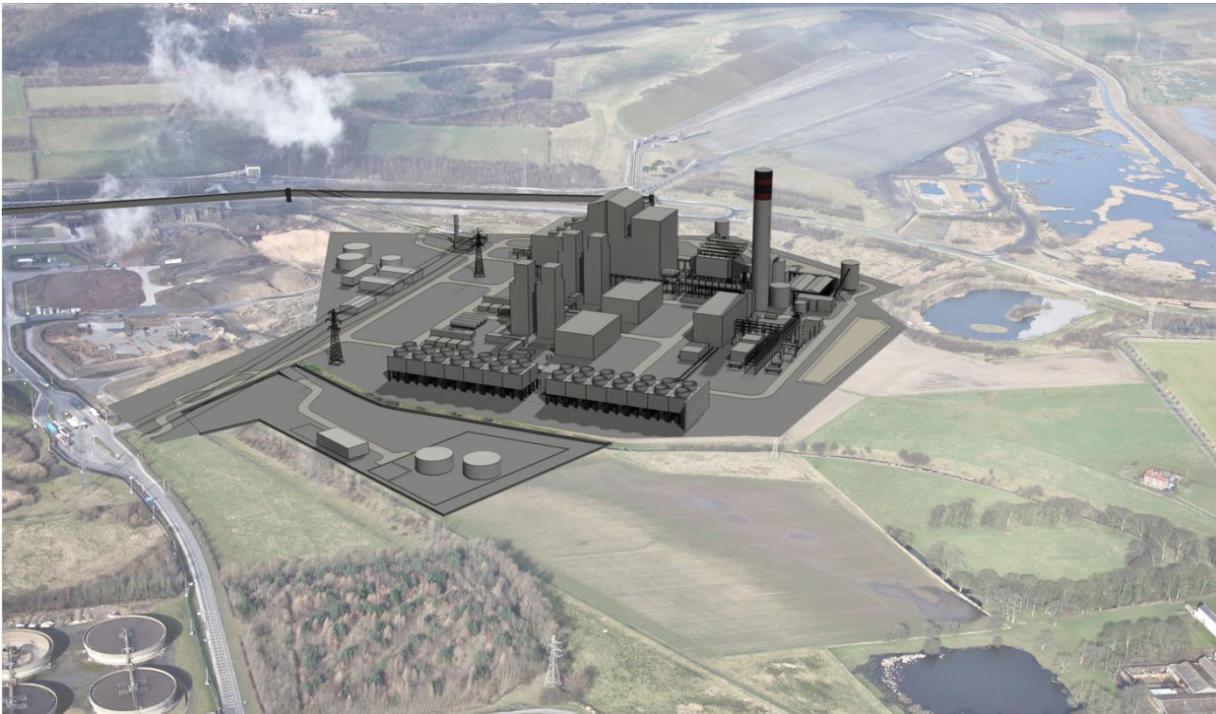
## The White Rose CCS (Generating Station) Order

Land adjacent to and within the Drax Power Station, Drax,  
near Selby, North Yorkshire

## Explanation of Changes made to the Indicative Landscaping and Biodiversity Framework Plan

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Applicant: Capture Power Limited  
Date: August 2015

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### Document History

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Revision History			
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1	21.08.15	Submission version for Deadline 6.	GB

Glossary	
AGI	Above Ground Installation.
Applicant	Capture Power Limited or CPL
CCS	Carbon Capture and Storage
CEMP	Construction Environmental Management Plan
DCO	Development Consent Order
EA	Environment Agency
EPC	Engineering Procurement Contractor
ES	Environmental Statement
HE	Historic England
IDB	Internal Drainage Board
LBAP	Local Biodiversity Action Plan
LLFA	Lead Local Flood Authority.
NE	Natural England
NYCC	North Yorkshire County Council
PROW	Public Right of Way
WRCCS	White Rose Carbon Capture and Storage Project
YWT	Yorkshire Wildlife Trust

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## 1.0 INTRODUCTION

- 1.1 This document has been prepared in respect of Capture Power Limited's (the Applicant's) application (the Application) submitted, pursuant to Section 37 of The Planning Act 2008, for a Development Consent Order ('DCO') for the White Rose Carbon Capture and Storage ('CCS') Project (the 'Project') to the Secretary of State c/o The Planning Inspectorate ('PINS') on 21 November 2014. The Application was accepted for Examination on 17 December 2014.
- 1.2 The Project comprises the construction, operation and maintenance of a new thermal generating station (an ultra-supercritical oxy-fuel coal-fired power plant of up to 448 megawatts gross with the ability to co-fire biomass) that will be fitted with CCS technology in addition to associated development, on land within and adjacent to the existing Drax Power Station site, Drax, near Selby, North Yorkshire, YO8 8PH, within the administrative areas of North Yorkshire County Council and Selby District Council.
- 1.3 The document details the comments received from a number of interested parties in response to further consultation on the landscaping and biodiversity proposals for the Project site. In addition, it sets out the Applicant's response to those comments as well as the changes that have been made to the proposals.
- 1.4 The document should be read alongside the revised Indicative Landscaping and Biodiversity Framework Plan (Document Ref. 4.10 - Rev. 3, Sheets 1 -2) submitted for Deadline 6 of the Examination. The revised plan supersedes the plan that formed part of the original Application submission.

## 2.0 APPLICANT'S EXPLANATION OF CHANGES

- 2.1 An Indicative Landscape and Biodiversity Framework Plan (hereafter referred to as the 'Plan') was included as part of the original Application submission (Document Ref. 4.10). The primary objective of the Plan is to provide an indication of the planting, landscape and biodiversity proposals that would be implemented on the Project site, and to maximise its landscape and biodiversity interest and value.
- 2.2 The Plan will inform the details that will need to be submitted, should the DCO be granted, to discharge requirement 5 'Provision of landscaping' and 16 'Biodiversity mitigation and management plan' of the DCO. Indeed, the requirements as drafted are explicit in stating that the details submitted must be in accordance with the Plan.
- 2.3 Following comments submitted by a number of interested parties earlier in the Examination, and also made at the issue specific hearings in early July 2015, the Applicant committed to engage further with these parties in order to develop and refine the Plan, so as to provide a more detailed specification for the proposals.
- 2.4 A revised Plan was subsequently issued to North Yorkshire County Council ('NYCC'), Historic England ('HE'), the Yorkshire Wildlife Trust ('YWT'), the Environment Agency ('EA') and Natural England ('NE') on the 16 July 2015. The parties were invited to comment upon the proposals outlined on the revised Plan.
- 2.5 The Applicant received responses from NYCC, the YWT, the EA and NE. The Applicant subsequently updated the Plan (Document Ref. 4.10 - Rev. 3, Sheets 1 - 2) and has submitted it for Deadline 6 of the Examination. The revised plan supersedes the plan that formed part of the original Application submission.
- 2.6 In order to respond to the comments received from the interested parties, and to produce the revised Plan, the comments were tabulated (please refer to **Table 2.1** below).
- 2.7 Typically, the comments fell into three categories:
- able to be addressed / actioned at this stage;
  - too specific for this stage of the design process, with potential to be addressed by the Engineering Procurement Contractor ('EPC') contractor during detailed design; and
  - not able to be addressed as not specific to the objectives of the Plan but potentially included within the management techniques to be defined in the finalised Construction Environmental Management Plan ('CEMP').
- 2.8 All comments, whether relevant to the Plan or not, are noted in **Table 2.1**; along with how these, where relevant, have been addressed by the Applicant.
- 2.9 As confirmed above, the Plan will inform the details that will be prepared and submitted by the EPC, following detailed design, to discharge requirements 5 and 16 of the DCO.

**Table 2.1 - Applicant's Explanation of Changes made to the Indicative Landscaping and Biodiversity Framework Plan**

Item	Interested Party	Comments Received	How addressed / CPL response
1	North Yorkshire County Council	<p>Temporary laydown areas</p> <p>Point 3 - there is no indication as to what the 'condition preceding construction' is and therefore what the proposed habitats to be created will comprise.</p>	<p>The Plan is to indicate the broad terms of what is proposed on site and is supplementary to the Environmental Statement ('ES').</p> <p>To identify the land condition before construction refer to the Phase 1 Survey and Habitat Map within Volume 2, Chapter I of the ES. Similarly the EPC contractor will refer to this information during the detailed design stage.</p>
2	North Yorkshire County Council	<p>Carr Dyke</p> <p>With regards to point 7 on the plan the detail in relation to the treatment of Carr Dyke is still lacking. To 'promote habitat creation and enhancement' does not give a clear indication as to what will be undertaken. I had expected more information including cross sections and planting proposals. There are no species mixes proposed for either the semi natural grassland or emergent vegetation.</p>	<p>The planting proposed will be species rich grassland with native shrubs. Detailed and specific planting mixes will be determined during detailed design stage.</p>
3	North Yorkshire County Council	<p>With regards to point 6 – I am generally pleased that ditches, dykes and watercourses will be protected and maintained, however there is no further information provided in terms of what this actually means and the extent as the target note is just within one location of the plan, adjacent to Carr Dyke, it is not clear whether this is within the site or outside the site boundary.</p>	<p>Detailed information regarding the methods used will be defined in the CEMP. The CEMP will be implemented by the EPC contractor and is secured by Requirement 18.</p>
4	North Yorkshire County Council	<p>Flood attenuation pond</p> <p>I would agree with the comments made by the Yorkshire Wildlife Trust, that water levels are very important in the success of any wetland habitat creation. Given the importance of this area in delivering on site mitigation for a number of species groups I would have expected much more information to be provided on this element.</p> <p>The ES (Table 4.1) highlights that water may need to be pumped from Carr Dyke during periods of dry weather – this requires careful monitoring and will not be sustainable in the long term. Is pumping still likely to be required and what level would the water need to reach before pumping was triggered? How might this pumping affect the</p>	<p>Specific water level details will be finalised during the detailed design process. Opportunities at this time may be identified for enhancement. Any concern over water levels will be communicated to the EPC contractor who will be asked to respond so far as is practicable. The Applicant has acknowledged that the on-site biodiversity measures cannot fully mitigate all impacts of the Project, including in particular in terms of wetland habitat. The Applicant has therefore agreed significant off-site biodiversity contributions to secure mitigation and enhancement elsewhere. These are separate to the Plan and are to be secured through a Section 106 development consent obligation.</p>

Item	Interested Party	Comments Received	How addressed / CPL response
		Dyke?	
5	North Yorkshire County Council	As with Carr Dyke, cross sections of the wetland area would be useful.	Specific details regarding the wetland will be finalised and addressed so far as is practicable during the detailed design phase.  It is beyond the scope of the Plan (and cognisant of the status of the design) to prepare detailed cross sections at this point.
6	North Yorkshire County Council	With regards to the then proposed species mixes for woodland and hedges, there is no indication as to why some species are in bold?	This was a formatting error and the Plan has now been updated.
7	North Yorkshire County Council	I do not think that <i>Sorbus intermedia</i> is appropriate as a hedge plant in this area.	<i>Sorbus intermedia</i> has been removed from suggested planting mix.
8	North Yorkshire County Council	In addition to species being suitable for the intended after use the species chosen should reflect habitats (and their comprising species) that are to be lost as part of the development or are present within semi natural habitats in the surrounding location.	The species choice was informed with reference to the local biodiversity action plan ('LBAP') and through discussion with the Project's ecologists.  The species mixes reflect the species present across the Project site and within the surrounding area. New planting will be of local provenance, using native species typical of the local area.
9	North Yorkshire County Council	As the landscape and habitat overall strategy plan is still lacking in detail, there will be a need for much more detail as part of requirement 16 of the DCO (the biodiversity mitigation and management plan). There will also be a need to ensure consistency between this strategy and protected species method statements such as that for badger and reptiles.	Comments noted and agreed to be addressed for the discharge of requirements 5 and 16.
10	North Yorkshire County Council	The plan does not show the site boundary, to clearly indicate what is on-site and what is off-site. Both the wider temporary boundary and permanent boundaries would be useful.	The Project site boundary has now been added to the Plan.
11	North Yorkshire County Council	Proposed on-site vegetation is admittedly a different shade of green but is partly obscured in places by the dashed PROW line.	It is appropriate to show the public right of way ('PROW'). It is considered that the Plan in this respect is acceptable.
12	North Yorkshire County Council	The jetty area is included as an inset, but it does not seem to form part of the strategy.	The jetty inset has been removed from the Plan.

Item	Interested Party	Comments Received	How addressed / CPL response
13	North Yorkshire County Council	There is no reference to wider landscape restoration proposals or local and regional strategies and initiatives which the strategy plan proposals could link with.	<p>The Plan does not refer explicitly to strategies, plans and policies as it draws on the findings and data presented in the ES.</p> <p>Accordingly the Plan was developed in accordance with relevant national and local policies which concern the protection of the environment, including landscape, ecology, the historic environment, and water resources, as set out in the ES.</p> <p>The planting will be appropriate to the landscape character of the area, as described in the Landscape Character Assessment (refer to Volume 2, Chapter H of the ES - Document Ref. 6.3.12)). The species choice was informed with reference to the LBAP and through discussion with the Project ecologists. Measures proposed for ecological protection and enhancement will be designed and implemented with reference to appropriate best practice guidance, described in the Volume 2, Chapter I of the ES (Document Refs. 6.3.13 and 6.3.14).</p>
14	North Yorkshire County Council	There is some updating needed in terms of immediate site context.	The date of the aerial photograph has been added to the Plan. As mentioned previously the Plan is indicative of what will be implemented at the Project site. The proposals will be developed further during the detailed design stage to inform the details submitted to discharge requirements 5 and 16. The EPC contractor will use up to date mapping / layouts for this detail.
15	North Yorkshire County Council	The plan uses an aerial photograph as the base, which has some benefits for showing context, but a date is needed. It does not show the Lytag facility to the NW of the WRCCS site for instance, which has been present for a couple of years or so, and which will have affected land use and vegetation distribution. A landscape masterplan is available for that site, as for the Barlow Mound site although it may need updating.	As mentioned above the base photo is intended to help provide an understanding of that landscape rather than to be a definitive and up to date record of its present condition. As emphasised this is an indicative Plan for the Project site not a finalised planting/landscaping specification.
16	North Yorkshire County Council	Known future features could be added to the landscape and habitat strategy plan, particularly the Yorkshire & Humber CCS pipeline AGI site.	The AGI is within the Project site and is a small feature within the overall context of the site. The majority of this feature is underground and will not be visible. The EPC contractor will ensure that planting around the site is in accordance with National Grid Carbon Ltd's requirements in terms of the planting

Item	Interested Party	Comments Received	How addressed / CPL response
			of woody species in proximity to the pipeline.
17	North Yorkshire County Council	The plan does not show contours or provide any further analysis of existing landscape and levels to show where the context is floodplain, raised landfill or platform, or the raised Drax Priory/Drax Abbey Farm 'island' – the relationships with all of these need to be considered e.g. see note on key points 6 and 7.	The Plan is to indicate the proposed landscape and biodiversity features and is not intended to show contours and existing site conditions.
18	North Yorkshire County Council	<p>Key point 1: The retention of existing woodland in areas targeted on this plan would depend on landowner agreement and planning conditions or agreed restoration where relevant. Retention and perpetuation of trees and woodland in the wider landscape would help with long term mitigation – see note on Drax Abbey Farm vegetation below.</p> <p>Timescale and extent of landfill and subsequent restoration of the northern part of Barlow Mound is now very unclear, with additional fuel ash to be deposited, and clay to be extracted for land-raising. Clarification of the likely evolution of this area would be welcomed due to the implications for visibility of the proposed power station as well as for local landscape character.</p>	Tree retention would be dealt with under requirement 5. It would also be further secured by the management techniques to be defined within the EPC contractor's CEMP. Matters such as ash management and restoration, are beyond the scope of the Plan.
19	North Yorkshire County Council	Key point 3: The main omission in the strategy plan is that only some the areas within the current submission which are to be used for construction and laydown are shown. The 'temporary' uses will cause great disturbance and may be quite extended – 5 years or longer if site raising, power station construction and pipeline/AGI construction are not all constructed at the same time. The strategy needs to include these areas. There could be opportunities for further mitigation/compensation/enhancement when they are reinstated, if there is landowner agreement. More information on current and proposed land uses and habitats could be provided. There is grade 1 and 2 farmland in the vicinity, so restoration of that might also be identified as a priority.	<p>The Applicant has committed to return laydown areas to their former uses (requirement 22) and relevant owners/occupiers, in accordance with the compulsory acquisition provisions of the DCO. Other areas/items are beyond the scope of the Plan.</p> <p>Opportunities to link the Plan with areas of a semi-natural habitat in the wider area and wider landscape will be assessed and further developed as appropriate during the detailed design phase.</p>
20	North Yorkshire County Council	Key point 10: Whilst it is assumed that disturbance to the SM site itself was never intended, the immediate setting will be degraded and a very narrow corridor left, about which NYCC has previously requested further information. The effect will be to visually join the WRCCS site	The Plan is a framework and has been developed by considering future linkages to green infrastructure corridors. The planting as proposed was agreed with Historic England to provide a buffer/screening between the Project and Drax

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		<p>to the Drax Priory site. NYCC has had concerns (on landscape rather than archaeology grounds) about the impact of the development on the whole Drax Priory/Drax Abbey Farm 'island' since the beginning. The adverse impact on setting cannot be mitigated due to the loss of open floodplain which at present allows it to be perceived as an 'island' (see SM schedule listing description which emphasises this) so NYCC has proposed that the Drax Priory/Drax Abbey Farm area is included in a wider off-site mitigation/compensation scheme, under a s106 agreement, in the key area between the WRCCS site and the Lower Derwent Valley (an important area for landscape and biodiversity with the WRCCS site on the edge of its buffer zone). The currently conceptual area for off-site mitigation and compensation would include viewpoints and routes where the most significant views of the power station would be obtained.</p> <p>Trees on the Drax Priory/Drax Abbey Farm site and the avenue trees along Pear Tree Avenue as far as the lodge appear to be associated mainly with a former country house on the site, and a conservation management plan for the whole 'island' and avenue is needed, subject to landowner and HE agreement. The would take account of archaeological sensitivity, but would also be based on a specialist assessment of more recent history and local associations, with one key objective being the perpetuation of the trees in the landscape since they provide important screening in wider views.</p> <p>The provision of interpretation boards would be helpful, but they need to be part of a strategy for enhancement of the whole of the diverted PROW corridor (key point 12) to mitigate/compensate for the fact that much of its current route through open countryside will be replaced by a confined route between industrial sites with WRCCS security fencing (also badger fencing at the pinch point between the SM site and the WRCCS site) and embankments in the foreground.</p>	<p>Augustinian priory.</p> <p>The purpose of the Plan is not to evaluate and define any potential Section 106 development consent obligations. The Applicant's view on these proposals has been set out in previous submissions.</p>
21	North Yorkshire County Council	<p>Key point 2: It is not clear how far the proposed species reflect those originally present in the landscape before power station development, of which there may be remnants, those which have been introduced as part of adjoining land uses, or those which it is considered may grow well in the newly created habitats. <i>Alnus glutinosa</i> and <i>Sorbus intermedia</i> are inappropriate species for a hedgerow mix and would</p>	<p><i>Sorbus intermedia</i> has been removed from the suggested planting mix.</p> <p><i>Alnus glutinosa</i> has been added to the tree/shrub mix. <i>Pinus sylvestris</i> has been exchanged for <i>Ilex aquifolium</i>.</p>

Item	Interested Party	Comments Received	How addressed / CPL response
		<p>not make appropriate hedgerow tree species either. <i>Pinus sylvestris</i> is presumably included for its evergreen screening qualities and I don't have an objection although <i>Ilex aquifolium</i> would also be effective at lower levels. <i>Sorbus intermedia</i> is not native or a normal woodland species though it is a robust plant for an industrial site and could have amenity use. The site lies within the River Ouse corridor in the Leeds City Region (and Natural England) Green Infrastructure Strategy, and is also on a Buglife B-line corridor. These are factors which planting could take into account.</p> <p>It is said that the planting is 'to provide screening whilst maintaining the predominantly open character of the area' – this doesn't make sense. It will provide screening, but the current open floodplain character of the site will be completely lost on construction of the power station, and could not in any case be maintained by planting.</p>	The Plan wording has been amended regarding planting and screening.
22	North Yorkshire County Council	Key point 4: It is not clear what is being referred to here – are the field boundaries to be on-site or off-site? I can't see any hedgerows on the masterplan. The land raising will remove existing features, but typical field boundary features in this area are ditches, not hedgerows. The number 4 is located where there is or was peat storage, and where a belt of new planting is shown on the Lytag masterplan, adjacent to the storage area.	Reference is now made to site boundaries instead of field boundaries. Hedges will be planted where the space available is too narrow for trees (or potentially underground/over ground services preclude the planting of trees).
23	North Yorkshire County Council	Key points 7 (and 6?): Protection and enhancement of ditches, dykes and watercourses is fully supported by NYCC, but there are many more of them than the Carr Dyke – off-site mainly, but also on the boundaries of fields used temporarily, and there are some open water bodies too. Does this objective refer to the WRCCS site, the whole application area including temporary construction and laydown areas, or both of these plus off-site areas (which could be delivered through a project under an s106 agreement)?	<p>This commitment applies to areas shown within the Plan and reinstatement of laydown areas is captured elsewhere.</p> <p>Detailed information regarding the methods used will be contained in the CEMP. The CEMP will be implemented by the EPC contractor and is secured by Requirement 18.</p>
24	Environment Agency	<p>You could look at introducing scalloped edges to the pond in order to maximise the length of the riparian strip. We note that the indicative plan denotes a single wet area for the pond.</p> <p>Stuart Edwards at North Yorkshire County Council may also be able to advise and I think they've produced their own SuDS guidance.</p>	Comment noted. Specific details of pond design will be considered during the detailed design stage.

Item	Interested Party	Comments Received	How addressed / CPL response
		NYCC, as the LLFA (Lead Local Flood Authority), are now (as of April 2015) the lead on surface water management and SuDS.	
25	Environment Agency	You could also give consideration to the inclusion of access for any plant which may be needed to de-silt in due course, along with consideration of how the design might be altered to minimise the ecological impacts of any such de-silting.	Comment noted. Specific details of pond design will be considered during the detailed design stage.
26	Environment Agency	Consideration could be given to multiple smaller ponds of varying depth. The overall s/w design should aim to remove silt/sediment at source - i.e. to prevent as far as possible, silt getting into the pond in the first place, thereby minimising the need for intrusive de-silting.	The landtake of this feature is a function of attenuate flow/need, available land and the potential for biological productivity. Specific details will be further defined during the detailed design stage.
27	Environment Agency	<p>As per YWT's comments, the plan should perhaps clarify whether the pond is intended to be of retention or a detention type. We note that the plan does not show attenuation volumes but acknowledge that this detail is adequately controlled elsewhere.</p> <p>Further guidance can be found here:</p> <ul style="list-style-type: none"> <li>• <a href="http://www.freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/">http://www.freshwaterhabitats.org.uk/projects/million-ponds/pond-creation-toolkit/</a></li> <li>• <a href="http://www.susdrain.org/delivering-suds/using-suds/design-guidance/detailed-suds-design-guidance.html">http://www.susdrain.org/delivering-suds/using-suds/design-guidance/detailed-suds-design-guidance.html</a></li> <li>• <a href="http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/business/sectors/39909.aspx">http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/business/sectors/39909.aspx</a>.</li> <li>• <a href="http://www.ciria.org/Resources/Free_publications/the_suds_manual.aspx">http://www.ciria.org/Resources/Free_publications/the_suds_manual.aspx</a></li> </ul>	Comment noted. No action required at this stage.
28	Environment Agency	Stuart Edwards at North Yorkshire County Council may also be able to advise and I think they've produced their own SuDS guidance. NYCC, as the LLFA, are now (as of April 2015) the lead on surface water management and SuDS.	Comment noted. No action required at this stage.
29	Natural England	We don't have any detailed comments to add to those of YWT and EA.	Comment noted. No action required at this stage.
30	Yorkshire Wildlife Trust	Water levels in the pond and water quality will be important as if water levels are erratic it will be hard to establish appropriate vegetation. If	A wetland grass mix is proposed. Management will be required to prevent spread of dock, nettle and thistle, but once the sward

Item	Interested Party	Comments Received	How addressed / CPL response
		water levels tend to be too low then plants such as nettles and docks may establish instead of wetland plants. If water levels are frequently too high marginal vegetation may not establish well.	is established there is less likelihood of pernicious species growing. The pond depth and levels will need to be designed in detail, with advice from an appropriately qualified hydrologist. . Again these are matters for the detailed design stage. A Section 106 development consent obligation has been agreed to secure contributions toward the provision of off-site wetland habitat.
31	Yorkshire Wildlife Trust	Will the badger fencing exclude small mammals such as water vole and amphibians from the wetland area?	Although water vole has not been identified on the Project site a chain link fence could be used which will allow water vole and amphibians to pass through if they move on to the site.
32	Yorkshire Wildlife Trust	The width of the area to the west of Carr Dyke appears to have been increased which the Trust would welcome. In previous documents the ground raising appeared to reach to the edge of the watercourse, has this been changed?	The Internal Drainage Board ('IDB') requires a 7m wide strip to be provided to the south of Carr Dyke in order to allow IDB plant to access the water edge for maintenance.
33	Yorkshire Wildlife Trust	Point 6 on the plan is welcomed, positive management of ditches and watercourses for wildlife is very valuable. Does this just apply to Carr Dyke or will other areas and watercourses be managed sympathetically?	This aspect applies to all watercourses covered by the Plan. Details regarding specific management of watercourses can be found within the ES.