

DWD



Retford Circular Economy Project

Planning Statement Addendum

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Revision	Description	Originated	Checked	Reviewed	Authorised	Date
1.0	Draft for Client Review	NC/ CC	NC	CT	CT	24.11.23
2.0	Final Draft	NC	NC	CT	CT	10.01.24
DWD Job Number: 16001						

1.0 INTRODUCTION

- 1.1 This Planning Statement Addendum has been prepared by DWD, in support of amended proposals, submitted on behalf of Lound Hive Limited part of Hive Aggregates and the Hive Energy Group (hereinafter referred to as ‘the Applicant’ or ‘Hive’), in connection with the planning application for the Retford Circular Economy Project or ‘RCEP’ which was submitted to Nottinghamshire County Council (NCC) in its capacity as Mineral Planning Authority in March 2023 (NCC application Ref. ES/4518). The application and accompanying documents as submitted in March 2023 are henceforth referred to as the ‘March 23 Application’, ‘the Proposed Development’ and also ‘the Retford Circular Economy Project’.
- 1.2 Amendments to the Proposed Development have been made following detailed consideration of the consultation responses received from key stakeholders during the determination period of the application; following meetings with the Environment Agency (EA), NCC’s Environmental Health and landscape advisors and Nottinghamshire Wildlife Trust (NWT); and pursuant to a NCC letter dated 2 November 2023 requesting further environmental information under the provisions of Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the ‘EIA Regulations’).
- 1.3 The amendments above together with the unaltered elements of the Proposed Development, are termed the Amended Proposed Development, and also the Retford Circular Economy Project (Micro-Phased Scheme). There is no change to the application red line boundary but elements of the working scheme have been improved and the restoration plan has been comprehensively revised. The changes include:
- A revised extraction methodology working progressively eastwards through Area A in Micro-Phases;
 - Additional measures to suppress dust, noise and visual impacts during extraction;
 - Permanent retention of a large section of the lagoon embankment along the southern boundary of Area A;
 - A revised layout for the Main Processing Site in Area C; and
 - An amended Restoration Scheme.

Amended Application documents

1.4 The proposed changes are described in more detail in the remainder of this document as well as the Environmental Statement Addendum¹ ('ESA'). Accordingly, the following documents form part of the Amended suite of application documents and are submitted alongside this Planning Statement Addendum:

- Application Cover Letter;
- Planning Statement Addendum (this document);
- Environmental Statement Addendum comprising:
 - **Volume 1** – ESA Main Reports;
 - **Volume 2** – ESA Figures;
 - **Volume 3** – ESA Technical Appendices; and
 - **Volume 4** – ESA Non-Technical Summary (NTS) (Refer to Table 1.2 of ESA Chapter 1 'Introduction' for a full list of application documents.)
- Need and Alternatives Assessment (not required to respond to Regulation 25 ('R25') request);
- Overview of Revised Proposals (not required to respond to R25 request);
- Revised suite of drawings (Refer to Table 1.1 below for a full list of drawings); and
- Socio-Economic Technical Note for the Idle Valley Nature Reserve (not required to respond to R25 request).

1.5 Table 1.1 below lists the suite of contextual and technical plans and drawings which form part of the Amended Proposed Development Submission. The Table expands upon Table 1.1 in the original Planning Statement, providing three additional columns listing the updated drawing reference (New Drawing reference), drawing revision number (Rev) and a comment on the drawing's status (Status). The revision numbering runs from 0 to P01. Rev 0 drawings are unchanged from the original March 2023 Application or are new drawings, and P01 are first revised drawings. No

¹ The ESA adopts the same chapter numbering as the original ES. Several topics have been scoped out of the ESA e.g Traffic and Transport, Climate Change, Sustainability therefore the ESA skips the chapter numbers which previously reported on these topics.

drawings are P02. Several drawings have been revoked as they show now removed elements of the Proposed Development.

Table 1.1 Amended Application Document List

DRAWING TITLE	MARCH 2023 DRAWING REFERENCE	(SHORT REFERENCE)	NEW DRAWING REFERENCE	SCALE	REV	STATUS	R25 update/ non-R25 ('Jan Update')?
Contextual Plans							
Site Location Plan	4092-REP-072	ES Figure 1.1	N/A	1:10,000	0	No change	N/A
Site Location Plan (Aerial)	4092-REP-042	ES Figure 1.2	N/A	1:15,000	0	No change	N/A
Site Area Plan	4092-REP-043	ES Figure 1.3	N/A	1:10,000	0	No change	N/A
Indicative Landscape Restoration Masterplan	4092-DR-LAN-101	ESA Figure 7.12	4092-DR-LAN-101	1:2,500	P01	Updated	R25
Indicative Landscape Restoration Masterplan inset 1	N/A	ESA Figure 7.12a	4092_DR_LAN_101-1	1:1250	0	New Drawing	R25
Indicative Landscape Restoration Masterplan inset 2	N/A	ESA Figure 7.12b	4092_DR_LAN_101-2	1:1250	0	New Drawing	R25
Indicative Landscape Restoration Masterplan Annotations	N/A	ESA Figure 7.13	4092_DR_LAN_101a	N/A	0	New Drawing	R25
Indicative Landscape Restoration Masterplan Sections	N/A	ESA Figure 7.14	4092_DR_LAN_103	1:250	0	New Drawing	R25
Outline Dewatering and Drainage Management Strategy (Extraction Area)	4092_DR_P_0004	N/A	N/A	N/A	N/A	Revoked Replaced by ESA Figure 9.3a	N/A

DRAWING TITLE	MARCH 2023 DRAWING REFERENCE	(SHORT REFERENCE)	NEW DRAWING REFERENCE	SCALE	REV	STATUS	R25 update/ non-R25 ('Jan Update')?
Outline Dewatering and Drainage Management Strategy (Main Processing Site)	4092_DR_P_0005	N/A	N/A	N/A	N/A	Revoked Replaced by ESA Figure 9.3b	N/A
Site Wide Drainage Plan (Extraction Area)	N/A	ESA Figure 9.3a	4092_DR_P_0010	1:8,000	0	New Drawing	R25
Site Wide Drainage Plan (Processing Area)	N/A	ESA Figure 9.3b	4092_DR_P_0011	1:1,250	0	New Drawing	R25
Swept Path Analysis A638 / Site Access Junction Powder Tanker Assessment	4092_DR_P_0006	N/A	N/A	1:500	0	No change	N/A
Existing Site Access	4092_DR_P_0008	N/A	N/A	1:500	0	No change	N/A
Technical Plans and Drawings							
Outline Site Layout	403.000007.00001.12.001.0	001	403.000007.00001.12.001.P01	1:10,000	P01	Updated	R25
Main Processing Plant Site Layout	403.000007.00001.12.002.0	002	403.000007.00001.12.002.P01	1:500	P01	Updated	Jan update
Optimisation Stage Site Layout	403.000007.00001.12.003.0	003	403.000007.00001.12.003.P01	1:500	P01	Updated	Jan update
Office / Welfare Accommodation Elevations	403.000007.00001.12.004.0	004	403.000007.00001.12.004.P01	1:100	P01	Updated	Jan update
Materials Storage Building Elevations	403.000007.00001.12.005.0	005	403.000007.00001.12.005.P01	1:200	P01	Updated	Jan update
Silos Elevations	403.000007.00001.12.006.0	006	403.000007.00001.12.006.0	1:100	0	No change	N/A

DRAWING TITLE	MARCH 2023 DRAWING REFERENCE	(SHORT REFERENCE)	NEW DRAWING REFERENCE	SCALE	REV	STATUS	R25 update/ non-R25 ('Jan Update')?
Drying Module - External View Elevations	403.000007.00001.12.007A.0	007A	403.000007.00001.12.007A.0	1:100	0	No change	N/A
Drying Module- Internal View Elevations	403.000007.00001.12.007B.0	007B	403.000007.00001.12.007B.0	1:100	0	No change	N/A
Proposed Drying Plant Filter Unit Elevations	N/A	007C	403.000007.00001.12.007C.0	1:25	0	New Drawing	Jan update
Proposed Drying Plant Condenser Elevations	N/A	007D	403.000007.00001.12.007D.0	1:20	0	New Drawing	Jan update
Proposed Drying Plant Stack Elevations	N/A	007E	403.000007.00001.12.007E.0	1:50	0	New Drawing	Jan update
CHP Unit Elevations	403.000007.00001.12.008.0	008	403.000007.00001.12.008.0	1:100	0	No Change	N/A
Main Processing Plant Site Cross-Section	403.000007.00001.12.009.0	009	403.000007.00001.12.009.P01	1:250	P01	Updated	Jan update
Gas Tanks & Vaporisers Elevations	403.000007.00001.12.010.0	010	403.000007.00001.12.010.P01	1:50	P01	Updated	Jan update
Weighbridge Elevations	403.000007.00001.12.011.0	011	403.000007.00001.12.011.0	1:50	0	No Change	N/A
Wheel Wash Elevations	403.000007.00001.12.012.0	012	403.000007.00001.12.012.0	1:50	0	No Change	N/A
Gas Main Kiosk Elevations	403.000007.00001.12.013.0	013	403.000007.00001.12.013.0	1:20	0	No Change	N/A
Temporary Processing Area Plan	403.000007.00001.12.014.0	014	N/A	N/A	N/A	Revoked	N/A
Conveyor - Crossing Plan & Typical Details	403.000007.00001.12.015.0	015	403.000007.00001.12.015.P01	1:1,000/ 1:100/ 1:20	P01	Updated	R25

DRAWING TITLE	MARCH 2023 DRAWING REFERENCE	(SHORT REFERENCE)	NEW DRAWING REFERENCE	SCALE	REV	STATUS	R25 update/ non-R25 ('Jan Update')?
Mobile Screen Details Plan	403.000007.00001.12.016.0	016	403.000007.00001.12.016.0	Not to Scale	0	No Change	N/A
PFA Lagoons Interpreted	403.000007.00001.12.017.0	017	403.000007.00001.12.017.0	1:7,500	0	No Change	N/A
Sandstone Bund profile	N/A	017A	403.000007.00001.12.017A.0	1:7,500	0	New Drawing	R25
Cross Sections	403.000007.00001.12.018.0	018	403.000007.00001.12.018.0	1:4,000	0	No Change	N/A
Typical Sections for Temporary Maintenance road & Boundary Treatments	403.000007.00001.12.019.0	019	403.000007.00001.12.019.0	1:50/ 1:20	0	No Change	N/A
Phasing Plan Combined	403.000007.00001.12.020-030.0	020-031	403.000007.00001.12.020-031.P01	1:6,000	P01	Updated	R25
Existing Site Layout Plan	403.000007.00001.12.031.0	032	403.000007.00001.12.032.0	1:500	0	Drawing number changed only	
Example Extraction Method Plan and Section	N/A	033	403.000007.00001.12.033.0	1:200	0	New Drawing	R25
Proposed Water Treatment Plant Elevations	N/A	034	403.000007.00001.12.034.0	1:50	0	New Drawing	R25
Public Access Routes	N/A	N/A	4092_DR_LAN_104	1:2500	0	New Drawing	Jan update

Structure of the Document

- 1.6 This Planning Statement Addendum follows the structure of the original Planning Statement. Information in the original Planning Statement has not been repeated, and as such, this Addendum only deals with changes which are relevant to each section. That said, this Planning Statement Addendum does briefly clarify which elements of the March 2023 Application have been retained throughout Section 4.
- 1.7 The Planning Statement Addendum draws upon and cross-refers, where relevant, to the other updated application documents and also documents which form part of the March 2023 application.
- 1.8 Table 1.2 below describes the Planning Statement Addendum structure.

Table 1.2 Structure of the Planning Statement Addendum

Section	Title	Overview
Section 2	Need	Sets out the changes to the significant need that exists for PFA.
Section 3	The Site and Surrounding Area	Describes relevant changes to the Site and Surrounding Area since submission of the March 2023 Application.
Section 4	The Proposed Development	Provides an overview of the Amended Proposed Development.
Section 5	Planning policy context	Sets out the relevant changes to the legislative and policy framework for the determination of the planning application.
Section 6	Planning Policy Assessment	Provides an assessment of the Amended Development against relevant policy at national and local level.
Section 7	Summary and conclusions	Sets out the conclusions in terms of the overall acceptability of the Amended Proposed Development.

2.0 NEED

- 2.1 Since the submission of the application in March 2023, there continues to be a strong need case to extract and process landfilled PFA for use as a construction material, including as a Supplementary Cementitious Material (SCM).
- 2.2 Hive has commissioned a Need and Alternatives Assessment which expands upon the Need section (Section 2) of the Original Planning Statement and to address comments made by consultees:
- Which query the carbon impact of cement and the benefits and support afforded to PFA;
 - Assert that there are different decarbonisation pathways for the cement industry; and
 - Contend that there are alternative sites that mean the RCEP is not needed.
- 2.3 The Need and Alternatives Assessment has been submitted alongside this Planning Statement Addendum and includes numerous empirical sources and published evidence, contextualised further with the latest government policy and industry feedback, and establishes (in summary) that:
- Significant carbon emissions from the cement industry are undeniable and very significant at almost one tonne of carbon for every tonne of Portland Cement produced.
 - The UK Government is proposing a significant reduction in carbon emissions.
 - The demand for cement is growing and there are limited options to decarbonise the industry, due largely to the nature of the material and the chemical reaction that is required to produce it. The replacement of the clinker component of cement, including with SCMs, such as PFA, is the only way to actually prevent a large portion of the emissions from Portland Cement.
 - There is a significant need for traditional SCMs, such as PFA, over the next 20 years or more until carbon capture, utilisation and storage (CCUS) is fully adopted. After which there will be a role to work in tandem with CCUS.
 - PFA is the only material that is domestically available in large enough quantities to provide the carbon reduction that is required now. The PFA resource in the UK therefore needs to be beneficially used at scale, with numerous new extraction and processing sites required.
 - PFA is a finite resource and is specifically defined in the NPPF as a type of secondary aggregate that local plan policies must (and indeed do) support. The NPPF actually classes PFA from

single-use deposits like the RCEP as ‘Mineral resources of local and national importance’; a designation that is not applied specifically to any other comparable SCMs.

- The RCEP comprises a nationally significant scale of resource at around 6.6 million tonnes, which is capable of saving over 5 million tonnes of carbon.
- The alternative PFA extraction sites in the UK are subject to the same and/or comparable sensitivities and constraints as the RCEP Site. The same is true of many quarries and mineral extraction sites across the UK, which, owing to their locations being almost exclusively in the countryside, are subject to numerous constraints and sensitivities that need to be managed.

2.4 The Need and Alternatives Assessment concludes that the need to extract from the RCEP Site has been demonstrated and reasonable alternatives have been considered.

3.0 THE SITE AND SURROUNDING AREA

- 3.1 The Site description remains as per the description contained in paragraphs 3.1 to 3.13 of the Original Planning Statement. The Site continues to be broadly characterised into three distinct areas; Areas A, B and C and the transport access arrangements and existing public rights of way network have not changed.
- 3.2 With regards to surrounding uses, the Regulation 25 Letter requested an updated cumulative sites plan to show new residential and commercial developments in the locality which the Applicant has provided in Figure 2.1 'Cumulative Developments' of Volume 2 of the ESA. The Figure shows that there are five new applications within 2.5km of the Site, of which none have been determined and one application, 22/01698/FUL to erect four holiday cottages at Bellmoor Farm was approved in March 2023.
- 3.3 There are no new environmental or planning designations which are relevant to the Site. The Original Planning Statement noted that the northeast corner of Area A lies within Flood Zone 2 (medium probability of flooding) and a small part of the access in Area C lies in Flood Zones 2 and 3 denoting a high probability of flooding. Following Storm Babet in October 2023, the EA issued Severe Flood Warnings for parts of Retford at some distance from the Site. The Site did not experience above average accumulation of surface water for that time of year and there was no flooding from the River Idle.
- 3.4 There have been no changes to the Planning History for the Site since preparation of the original Planning Statement.

4.0 THE AMENDED PROPOSED DEVELOPMENT

- 4.1 This section provides a description of the Amended Proposed Development, including those elements of the Proposed Development which remain unchanged from the original Application as well as the elements which have changed and are new.
- 4.2 Further information can also be found in Chapter 5 ‘Changes to the Proposed Development’ of the Environmental Statement Addendum (Volume 1).

Overview

- 4.3 The Proposed Development would continue to comprise extraction, processing and export of PFA contained in the former disposal lagoons at the Site. Associated with this there would continue to be earthworks, dewatering and soil storage, ponds and excavations, hard surfacing, buildings and structures, plant, conveyors, utility connections, roadways, parking, drainage, and progressive restoration (including planting and habitat creation).
- 4.4 The Site would continue to be divided into three areas namely, Area A, Area B and Area C, whose size and operational remit remains unchanged. PFA would be extracted in Area A and transported to the Main Processing Site in Area C via Area B, to be processed ready for export.
- 4.5 In total, extraction is expected to take around 22 years at a rate of approximately 300,000 tonnes per annum.

Area A

- 4.6 Area A would continue to be for the proposed extraction of PFA and remains physically unchanged covering an area of approximately 105.84ha and comprising six lagoons referred to as ‘High-Rise’ lagoons (17 – 19 m AOD) and ‘Low-Rise’ lagoons (7.5 – 11 m AOD) termed due to their relative heights. The location of the lagoons is shown on the ‘PFA Lagoons Interpreted’ Plan (Ref. 403.000007.00001.12.017A.0) and the height of the sandstone bunds is shown on drawing ref. 403.000007.00001.12.017B.0.
- 4.7 The Applicant has comprehensively reworked the extraction methodology to address comments made by consultees. Table 4.1 below lists the main operational and physical components of the extraction methodology describing the extent to which each element has changed from the Proposed Development with reference to the submitted drawings. The revised indicative scheme phasing order proposes to commence extraction in area HR P1 in the western end of Area A and then work progressively eastwards. In addition to, changing the direction of extraction, the

extraction process would take place at a lower level and be contained behind the existing sandstone lagoon embankments.

- 4.8 The Amended Proposed Development would continue to propose a phased approach to extraction, at a rate of 300,000 tonnes of PFA per annum over 22 years. However, one of the major improvements to the Amended Proposed Development is the adoption of ‘Micro-Phasing’, whereby each of the extraction phases (e.g. HR P1, HR P2) is worked in smaller ‘Micro-Phases’. Each Micro-Phase would be around 0.5-1.0 ha in size (under 1% of Area A), meaning that active extraction would only take place in no more than 1% of the Site at any given time.

Table 4.1 Amended Extraction process approach and components.

COMPONENT	OLD DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
<p>Phasing and Micro-phasing.</p>	<p>403.000007.00001.12.020.0 to 403.000007.00001.12.030.0 inclusive</p>	<p>The extraction process would continue to be carried out in 11 phases. The total quantum of PFA that would be extracted, the amount of PFA extracted from each lagoon and the time taken to complete extraction from each lagoon is unchanged. That said the Amended Proposed Development proposes significant changes to extraction working practices.</p> <p>Table 4.2 below lists the amended phase sequencing, volume and time taken for PFA extraction, superseding Table 4.1 in the Original Planning Statement. As noted above the sum of the ‘total PFA’ and ‘years’ columns remain the same but the phase sequencing has changed.</p> <p>In the Proposed Development, extraction began at the western end of Area A in HR P1, and then extraction activity would relocate to the Low-Rise lagoons before working progressively westwards back to the starting point.</p> <p>The amended extraction process would also begin at the southwest corner of HR P1 but instead move progressively eastwards through Area A, working the High-Rise lagoons first and then the Low-Rise lagoons. Therefore, in the Amended Proposed Development, Lagoon 2 (refer to 403.000007.00001.12.017A.0) is worked during the second stage of extraction (HR P2) whereas in the Proposed Development it is the last stage of extraction. Prior to the commencement of soil stripping in HR P2 there would be some extraction of the soakaway and filter ponds in LR P1 and LR P2.</p> <p>The amended phase sequencing route is shown on the updated Phasing Plans sheets 20 to 30 (drawing ref. 403.000007.00001.12.020-031.P01).</p> <p>The main operations associated with each phase of extraction remain largely unchanged and comprise:</p> <ul style="list-style-type: none"> • Soil stripping; • Progressive extraction of PFA; • Progressive Site Restoration comprising certain lagoon embankment removal following extraction to fill the void and Landform profiling, planting and seeding. <p>As stated previously, the Amended Proposed Development adopts the principle of Micro-Phasing, whereby each of the larger extraction phases is worked in smaller Micro-Phases. Each Micro-Phase would be around 0.5-1.0 ha in size (under 1% of Area A) and the operational activities, listed above, would only take place in one Micro-phase at a given time.</p> <p>For comparison, in the Proposed Development, HR P4 covering 7.5 ha would have been soil stripped entirely, then the PFA extracted followed by restoration. In the Amended Proposed Development, HR P4 (still 7.5ha) could be split up into 15 Micro-Phases; soil-stripping and extraction would take place in one Micro-Phase at a time. Following the extraction of all extractable PFA in each Micro-Phase, the area would be cordoned off (or similar) until adjoining Micro-Phases have also been extracted to a similar level, and restoration works would commence on this small group of adjoining Micro-Phases. Image 5.1 in Chapter 5 ‘Changes to the Proposed Development’ of the ES Addendum (Volume 1) provides an indicative illustration of how Micro-phasing would look in HR P4.</p> <p>Therefore, although the type of operations associated with each phase of extraction remain broadly similar, Micro-phasing means that a much smaller area at any one time would be soil stripped or subject to extraction operations. This significantly limits exposed areas and focuses active extraction in less than 1% of the Site.</p>	<p>403.000007.00001.12.020.P01 to 403.000007.00001.12.031.P01 inclusive</p>
<p>Conveyor and Roads</p>	<p>Conveyor Crossing: 403.000007.00001.12.015 rev 0</p>	<p>The main conveyor and temporary maintenance road would continue to be principal development components for the transport of PFA and movement between Area A and C. The design of the maintenance road is unchanged and as per the Temporary Maintenance road Section drawing (ref. 403.000007.00001.12.015.0) submitted previously. Moreover, an unlined ditch would be proposed alongside the maintenance road.</p>	<p>The Typical Section through temporary Maintenance road is unchanged.</p> <p>The Updated Conveyor Crossing Plan is:</p>

COMPONENT	OLD DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
	<p>Typical Section through temporary Maintenance road: 403.000007.00001.12.019.0</p>	<p>The layout and positioning of the maintenance road and conveyor has changed. In the Amended Proposed Development, the maintenance road is now positioned to the left of the conveyor and adjacent to the drainage ditch. This is shown on the updated Phasing Plans (ref. 403.000007.00001.12.020-031.P01).</p> <p>The conveyor and maintenance road have also been repositioned within Area A and now travel in a northeasterly direction through HR P1 passing the valley between HR P1 and HR P2 at a perpendicular angle and then following the eastern/ southern boundary of the High-Rise lagoons before intersecting the existing NWT Access Road. The amended maintenance road and conveyor route is located further away from Bellmoor Farm and other sensitive receptors.</p> <p>The revised route now travels through HR P2 and HR P3 further east/ south within the lagoons which is further away from Bellmoor Farm. The conveyor crossing through the valley between HR P1 and HR P2 has also changed to reflect this amended alignment. It continues to be a ramped structure in 'U' shaped crossing above the conveyor. The updated conveyor crossing plan is shown on drawing ref. 403.000007.00001.12.015.P01.</p> <p>Within the high rise lagoons the conveyor and maintenance roads would also be positioned within the void created by a lower level cut into the PFA at around 5m below ground level and subsequently extended within the void as extraction progresses. By contrast, in the Proposed Development the Maintenance road and Conveyor were previously proposed to be constructed on top of the High-Rise lagoons meaning this infrastructure was far more visible in an elevated position and also closer to the Sutton and Lound Gravel Pits Site of Special Scientific Interest to the south of Area A.</p> <p>Importantly, the positioning of the conveyor and maintenance road within the void and at a lower level behind existing lagoon embankments has primarily been proposed to move the infrastructure further away from sensitive receptors including the SSSI and Bellmoor Farm. It both facilitates visual screening and further improves the management of potential noise and dust impacts.</p> <p>The Amended Proposed Development also makes provision for an adjustable covered spur conveyor with a moveable hopper. The Spur conveyor would branch off of the main conveyor and enable the reception hopper and mobile screen to be positioned closer to the extraction face. There would only be one spur conveyor and which would be re-positioned relative to the extraction Micro-phase. This change would facilitate Micro-phasing and the removal of the remote Temporary Processing Areas 1-3 and also means that confining dust generating activities to a smaller area which is easy to manage with bowsers and water sprays. The indicative locations of the moveable spur conveyor are shown as the blue dashed line on the updated Phasing Plans sheets 20 to 30 (drawing ref. 403.000007.00001.12.020-031.P01) and an indicative layout of the extraction area showing the spur conveyor positioned near the reception hopper and extraction face is provided on the Example Extraction Method Plan and Section (drawing ref. Site 403.000007.00001.12.033.0).</p> <p>The Amended Proposed Development also contains several other roads within the extraction area. The existing access road running between Lound Low Road and LR P1, for use by NWT remains part of the proposals. As is the proposed new farm access road located along the western embankment of the High-Rise lagoons is also proposed to be retained.</p> <p>Temporary lighting is proposed within Area A during the winter months when there is less available daylight to illuminate the extraction processes within the void. The lighting would be to illuminate the extraction Micro-phase sited at ground level moving deeper into the void as the PFA is extracted. The transfer of PFA to the Main Processing Site within Area C would be undertaken via the covered conveyor and it is envisaged that this would not be lit. The lighting would be switched off at the end of each working day in Area A.</p>	<p>403.000007.00001.12.015 rev P01</p>
<p>Temporary Processing Area</p>	<p>403.000007.00001.12.014.0</p>	<p>All three Temporary Processing Areas within Area A have been removed from the Amended Proposed Development. Instead PFA would be extracted, screened and fed into the spur conveyor and subsequently the main conveyor for onward transport to the Main Processing Site. Refer to the Example Extraction Method Plan and Section (drawing ref. Site 403.000007.00001.12.033.0). This reduces travel distances in some instances between the extraction face and processing (shredding and screening) by 100s of metres.</p> <p>Therefore, the Temporary Processing Area drawing (403.000007.00001.12.014.0) is revoked.</p>	<p>Drawing revoked.</p>

COMPONENT	OLD DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
Mobile Screen	403.000007.00001.12.016.0	The mobile screen design has not changed. In the Amended Proposed Development the screen would be located within the Micro-phase and feed into the mobile screen as shown on the Indicative Example Extraction Method Plan and Section (drawing ref. Site 403.000007.00001.12.033.0).	The drawing has not been updated.
Soil Storage	No detailed drawing, refer to the Phasing Plan	<p>The Proposed Development included two long-term soil/overburden storage areas during the extraction, located adjacent to HR P1 and in between the High-Rise and Low-Rise lagoons.</p> <p>The Amended Proposed Development now comprises one long-term storage area only, in between the High Rise and Low Rise lagoons and slightly closer to Lound Low Road. The storage area would be characteristically similar in the Proposed Development however due to progressive restoration, temporary storage within each phase and provision of additional soil bunds, there is less requirement for dedicated long-term soil storage.</p>	No detailed drawing, refer to the Updated Phasing Plan
Bunds	No detailed drawing, refer to the Phasing Plan	<p>The Amended Proposed Development now comprises a 3m high seeded attenuation bund to the north of LR P3 and Soil/ Overburden store along the border with Lound Low Road. This bund would be constructed from excavated fill from HR P6 and maintained during the extraction of the LR P3 to LR P5. The Bund would then be removed for the final restoration. The Location of this Bund is shown on Drawing sheets 026 to 030 of the updated Phasing Plans (drawing ref. 403.000007.00001.12.020-031.P01) and they are discussed in greater detail in Chapter 7 'LVIA' and Chapter 12 'Noise' of the Environmental Statement Addendum (Volume 1).</p> <p>The Amended Proposed Development also makes provision for additional 2 – 3m seeded bunds or barriers along the western side of HR P3 and northern boundary of HR P5 and P6 following the removal the lagoon embankment when extraction has been completed in these phases. The bunds would provide further screening of the remaining extraction phases for properties located at Bellmoor Farm and Fisheries to the north of the Site once the existing lagoon embankments are removed and to facilitate restoration. Refer to ESA Figure 7.18 'Illustrative Landscape Mitigation and Targeted Amenity Measures' (Drawing ref: 4092-SK-LAN-101).</p>	No detailed drawing, refer to the Updated Phasing Plan: 403.000007.00001.12.020-031.P01
Embankments	No detailed drawing, refer to the Phasing Plan	<p>The Proposed Development's extraction methodology included the removal of the existing embankments which formed the High Rise lagoons. Following each phase of extraction, the remaining lagoon embankment would be removed to provide material for the Restoration Scheme. Embankment removal was also proposed to facilitate construction of the Temporary Processing Areas.</p> <p>The Amended Proposed Development also comprises embankment removal however, several sections of lagoon embankments are proposed to be retained, most notably the section of the embankment which lies within the Sutton and Lound Gravel Pits SSSI would be retained at its full height. Other sections of retained embankments would be lowered in height to provide material for restoration. Figure 8.4 'Land Retained within the Site' of the ESA (Volume 2) shows the sections of embankment which would be retained in green hatching.</p>	ESA Figure 8.4 Land Retained within the Site: 4092-REP-57
Ponds	Phasing Plans 403.000007.00001.12.020-030.0 Outline Dewatering and Drainage Management Strategy Extraction Area: 4092_DR_P_0004	<p>The Amended Proposed Development retains the Filter Ponds and Soakaway Ponds which are proposed in LR P1 and LR P2 respectively. As per the Proposed Development, it is anticipated that both ponds would be constructed in Stage 2, following the extraction of HR P1.</p> <p>The Amended Proposed Development does not involve active dewatering of groundwater during extraction. It is therefore proposed that the filter ponds and soakaway would deal with process and contact water from the Main Processing Site only, not water that is abstracted by pumping from the extraction void; however, there is also an option to deal with, treat and/or dispose of this water at the Main Processing Site. Please refer to the ES Addendum Volume 3, Appendix 9.3 Drainage Management Plan for more detail.</p> <p>It is also proposed to drain a proportion of surface water from restored areas into a separate storage pond(s) within the filter pond area within Area A, for use in operations on-site, including in water bowsers and dust suppression. The storage pond(s) may also be connected by field ditches to parts of Area A that are yet to be extracted from (the existing grazing land), to increase the volume of surface water that is able to be collected for use on-site during operation. To manage levels in any storage pond(s) there would be a surface water discharge on the northern boundary of the Low-Rise area, into the existing drain to the north of the Site. The surface water system and storage pond(s) would be kept separate from the PFA to avoid contamination. It is envisaged that more detail would be secured by a suitable planning condition.</p>	Updated Phasing Plans: 403.000007.00001.12.020-031.P01 ESA Fig 9.3a Site Wide Drainage Plan: 4092_DR_P_0004 Technical Appendix 9.3 Outline Drainage Management Strategy

COMPONENT	OLD DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
Wet Working	Dewatering approach shown on Outline Dewatering and Drainage Management Strategy Extraction Area: 4092_DR_P_0004	<p>In the Original Planning Statement it was stated that groundwater would be drained to a sump or a series of sumps within the base of the excavation. Water would then be pumped from the sumps to the settlement ponds to dewater the void. Consideration was also given to the requirement for interceptors/treatment in addition to the filter ponds as part of the Environmental Permitting process.</p> <p>This is no longer the case, as the dewatering/pumping of groundwater to work the below water table section of the deposit 'dry' has been removed from the Amended Proposed Development. As discussed in Chapter 9, Hydrology, Hydrogeology and Flood Risk within the ES Addendum, the method of extraction of the PFA now provides for a 'wet working' approach.</p> <p>The wet working approach involves the following key features and has been adopted to address concerns raised by ecological consultees:</p> <ul style="list-style-type: none"> • No pumping of water from the extraction void in order to work it dry, with the PFA instead extracted with groundwater in-situ. The PFA would be extracted with a dredger and/or conventional plant (e.g. an excavator, with a specialised bucket if necessary). The Applicant may also consider other specialised wet working methods, including the use of geotextile bags or tubes. • When the excavation reaches the water table within the PFA the material would be stripped in thin horizons to allow the water level in the working area to reach an equilibrium with the surrounding groundwater to prevent a significant buildup of hydrological head and to prevent basal heave. • The excavation would be left until the water level within the excavation has stabilised (inflows from leaching through the sides and base of the excavation, rainfall and surface water run-off) and reached an equilibrium with the surrounding groundwater before taking the next strip. • The PFA would be extracted to approximately 0.2-0.5m above the top of the sandstone bedrock, although the exact thickness of PFA remaining at the base of the excavation would be determined during detailed design based on local hydrogeological conditions at each phase. This would prevent direct mixing of groundwater within the underlying Sandstone and PFA water within the working area. • Once extracted, the 'wet' PFA would be placed along the side of the excavation onto in-situ PFA to allow any water within the PFA to drain naturally back into the excavation, within the working area. • The main advantages of this wet working process would be the avoidance of active abstraction of the groundwater and discharge into soakaway ponds, and no mixing of groundwater within the underlying Sandstone and the PFA water within the working area. <p>Using groundwater monitoring data it has been possible to calculate that only around 17% of the resource is located below the water table. Given the abundance of material above groundwater, it would also be possible, if necessary, to apply a bespoke method of working where wet and dry material is extracted simultaneously in a Micro-Phase and placed in the pre-screening stockpile together in order to reduce the overall moisture content.</p>	ESA Figure 5.3 Wet Working Process
Water Treatment Plant	n/a	<p>In addition to the Filter and Soakaway ponds, the Amended Proposed Development includes the option for the addition of Water Treatment Plants (WTPs) on the parcel of land in between the filter and soakaway ponds, and also at the Main Processing Site. The location of the WTP in Area A is shown on the updated Phasing Plans sheets 021 to 030 (drawing ref. 403.000007.00001.12.020-031.P01). The Amended Proposed Development also proposes an optional location for WTP within the Main Processing Site (Area C). The indicative location of this plant is shown on the Main Processing Site Layout (drawing ref. 403.000007.00001.12.002.P01).</p> <p>If required, the WTPs would be constructed in an early phase of the extraction and comprise two or three containerised units arranged in a row measuring (H) 2.6m x (L) 12.2m x (W) 2.4). Refer to the Proposed Water Treatment Plant Elevations (drawing ref. 403.000007.00001.12.034.0).</p>	<p>Water Treatment Plant Elevations: 403.000007.00001.12.034.0 Main Processing Site Layout: 403.000007.00001.12.002.P01</p>
Trees and Planting	403.000007.00001.12.020-030.0	Areas of retained woodland, on the northwest corner of Lagoon 1 and along the southern perimeter of the Low-Rise lagoons would continue to be retained throughout extraction and restoration in the Amended Proposed Development.	Phasing Plan Combined: 403.000007.00001.12.020-031.P01

COMPONENT	OLD DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
		Furthermore, the Amended Proposed Development would retain the two strips of advance planting, located at the north east and south west extent of Area A.	

Table 4.2: Phase sequencing

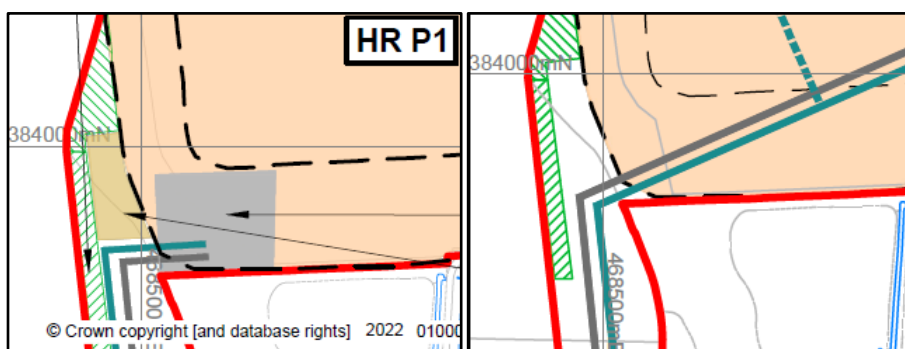
Key – HR- High Rise/LR – Low Rise

PHASE ID	PFA TONNES	SIZE (HA)	ESTABLISHMENT, EXTRACTION AND RESTORATION - APPROX. TIMINGS			
			SOIL STRIPPING (DAYS)	EXTRACTION (YEARS)	EMBANKMENT REMOVAL & INFILLING (DAYS)	LANDFORM PROFILING, PLANTING & SEEDING (MONTHS)
HR P1	916,000 t	11.5	12	3.1	15	9 to 12
HR P2	933,000 t	10.3	11	3.1	15	9 to 12
HR P3	1,109,000 t	14.6	11	3.7	15	9 to 12
HR P4	1,323,000 t	12.2	11	4.4	15	9 to 12
HR P5	583,000 t	6.1	11	1.9	10	9 to 12
HR P6	584,000 t	8.6	11	1.9	10	9 to 12
LR P3	208,000 t	6.3	10	0.7	8	9 to 12
LR P4	344,000 t	8.2	10	1.1	8	9 to 12
LR P5	254,000 t	7	10	0.8	8	9 to 12
LR P1	87,000 t	3.3	6	0.3	5	9 to 12
LR P2	116,000 t	4.4	5	0.4	5	9 to 12

Area B

- 4.9 Area B has not fundamentally changed since submission of the original application. It remains the same size, approximately 5.2ha and would continue to link the extraction area and Main Processing Site.
- 4.10 The maintenance road and conveyor are the principal elements of the Proposed Development within Area B. Both these elements remain mostly unchanged however at the border with Area A, the alignment and positioning of the maintenance road and conveyor would change.
- 4.11 Following the repositioning of the conveyor more centrally within the extraction area, further away from the SSSI and adoption of a progressive extraction methodology, the maintenance road and conveyor now travel at a 45 degree angle into HR P1. The updated alignment is shown on the updated Outline Site Layout Plan (Drawing ref. 403.000007.00001.12.002.P01). **Figure 4.1** also shows the change in the conveyor and maintenance road alignment, as it enters the Extraction Area in the original Scheme (left hand image) compared with the updated Scheme (right hand image).

Figure 4.1 Conveyor and Maintenance road Alignment original/Amended Proposed Development.



- 4.12 In the original submission, extraction would begin on the border of Area B and A by digging into the southwest corner of the embankment of HR P1 in order to set up the first Temporary Processing area. Within the updated extraction methodology, extraction would begin by digging a cut to approximately 5m depth into the embankment in the southwest corner of HR P1 from which point the maintenance road and conveyor would extend into. As a result of this change the Amended Proposed Development no longer proposes a Soil and Overburden Store for HR P1 in the northern part of Area. This feature, shown as a yellow square in Figure 4.1), has been removed from the updated Outline Site Layout (Drawing ref. 403.000007.00001.12.002.P01) and Updated Phasing Plans (Drawing ref. 403.000007.00001.12.020-031.P01).
- 4.13 The Amended Proposed Development retains the advance planting along the western boundary of Area B which would screen the development from views on Sutton Lane to west. In addition, a 2m bund seeded with wildflowers along the western boundary of Area B is proposed to provide further screening from views to the west. The bund would utilise on-site soils. These features are illustrated in Figure 7.18 'Illustrative Landscape Mitigation and Targeted Amenity Measures' of the ESA (Volume 2).
- 4.14 The Southern Section Area B would continue to provide settlement ponds/tanks in order to collect water in accordance with the outline drainage design. The indicative location of the ponds is shown on Figure 9.3b 'Site Wide Drainage Plan Main Processing Site' of the ESA (Volume 2).

Area C

- 4.15 Area C is still the Site of the proposed Main Processing Area and covers an area measuring approximately 2.5 hectares. In the Amended Proposed Development, the layout and some of the component parts of the Main Processing Area have changed. The updated layout of the Main Processing Area is shown on the Main Processing Plant Site Layout Plan (Drawing ref.

403.000007.00001.12.002.P01) and Table **4.3** below lists its main elements starting from the northern end of Area A and moving south. Table **4.3** also describes the extent to which each element has changed from the original layout and provides references to the original and updated drawings. One of the more notable changes to the Main Processing Site is the provision of 8 no. external filtration systems in connection with the drying module, to comply with Environmental Permitting requirements; these were previously internal units with a vent system.

4.16 As a result, the updated Main Processing Site would contain 8 no. external filters, condensers, and associated air release stacks measuring 14.0m in height. The stacks are shown in detail on drawing ref. 403.000007.00001.12.007E.0 and can be viewed within the context of the Main Processing Site on the updated Cross Section (Drawing ref. 403.000007.00001.12.009.P01).

4.17 In addition to the elements described in Table **4.3**, the updated Main Processing Site also includes an improved internal road layout following the addition of a road on the southwest corner of Area C. The additional road would accommodate the silos and weighbridges as well as the jet wash station and reduce vehicle conflicts to improve vehicle circulation. The silos have been repositioned closer to the existing silo and concrete batching plant infrastructure on the adjacent Breedon site, to group the taller structures together and benefit from screening by the existing structures. The main driver for the revised layout however is to accommodate the external filter units.

4.18 Pedestrian crossings for site operatives would continue to be provided within the updated Processing Area layout.

Site Optimisation stage

4.19 As per the Proposed Development a temporary optimisation stage is still proposed for Area C. This configuration would be implemented during the initial period of operation, covering a period of up to 24 months but more likely 6 months prior to full setup of the Main Processing Infrastructure.

4.20 The layout of the temporary optimisation stage has changed since the original planning submission to reflect the changes to the layout of the Main Processing Site and provision of new plant such as the external filtration system. The updated layout of the Optimisation Stage Site is shown on the Optimisation Stage Site Layout Plan (Drawing ref. 403.000007.00001.12.003.P01) and comprises the following elements.

- 2 no. office containers;
- 4 no. staff car parking spaces and no staff car park in the north east corner of Area A;
- 2no. weighbridges, located adjacent to the Material Storage Building and CHP unit;

- 1 no. wheel washing station;
- 1 no. materials storage building;
- 1 no. drying module;
- 1no. external filtration system comprising filter system, condenser and stack;
- 1 no. silo;
- 1 no. jet wash station;
- 1 no. Combined Heat and Power (CHP) unit;
- 1no gas tank and 3 no. vaporisers; and
- Gas main.

Table 4.3 Amended Main Processing Area Components

COMPONENT	ORIGINAL DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)	DESCRIPTION OF CHANGE FROM THE ORIGINAL SUBMISSION	NEW DRAWING REFERENCE (FINAL NUMBER IS REV NUMBER)
Office canteen and laboratory buildings	403.000007.00001.12.004.0	<p>The development still proposes 6no. container structures.</p> <p>The building has moved from next to the materials storage buildings to the northern boundary of the Site in between the conveyor and parking spaces.</p> <p>The footprint and layout of the containers has changed from three rows of two containers, one storey in height ((H)2.8m x (L)24.4m x (W)7.3m) to three rows of containers over two storeys ((H)5.5m x (L)12.2m x (W)7.3m). Accordingly, the footprint of the office building has reduced by half but doubled in height.</p>	403.000007.00001.12.004.P01
Staff car parking	403.000007.00001.12.002.0	<p>The Main Processing Site still comprises a total of 22 vehicular parking spaces with 18 parking spaces still be located in the northeast corner of Area A.</p> <p>Four parking spaces previously located to the north of the materials storage building have been relocated to its eastern elevation. The layout and location of the parking spaces is shown on the updated Main processing Site Layout (Drawing ref. 403.000007.00001.12.002.P01)</p>	403.000007.00001.12.002.P01
Weighbridges	403.000007.00001.12.011.0	<p>One weighbridge is still proposed to the west of the materials storage buildings.</p> <p>In the updated Processing Area layout, two additional weighbridges are proposed in the southwest corner of Area A, south of the silos and would be used for weighing trailers which have been loaded with PFA. The layout and location of the weighbridges updated Main processing Site Layout (Drawing ref. 403.000007.00001.12.002.P01)</p>	The drawing has not been updated.
Wheel washing station	403.000007.00001.12.012.0	<p>The design of the facility has not changed as it still comprises a raised washing station with ramps and a drip tray and settlement tank to collect water runoff.</p> <p>The proposed wheel wash facility has been relocated from the western boundary of the materials storage building to its southern boundary. The layout and location of the wheel wash facility is shown on the Main processing Site Layout (Drawing ref. 403.000007.00001.12.002.P01)</p>	403.000007.00001.12.012.P01
Material storage buildings	403.000007.00001.12.005.0	<p>In the updated Processing Area Layout, the materials storage building would still be located in the centre of Area A and the internal layout and plant (conveyor feed, mobile screen and hopper) has not changed.</p> <p>The footprint of both buildings is the same ((H)12.0m x (L)50.0m x (W)40.0m) and would continue to be externally clad rectangular buildings with a 3m pitched roof.</p> <p>The conveyor feed inlets on elevations A-A and C-C (as shown on drawing ref. 403.000007.00001.12.005.P01) have been repositioned more centrally to accommodate the small changes to the conveyor alignment resulting in a negligible change to the building's appearance.</p>	403.000007.00001.12.005.P01
Drying modules each comprising: <ul style="list-style-type: none"> • A Heat Exchanger • Feed System • Drying System • 4 no. Cyclones 	<p>External elevations: 403.000007.00001.12.007A.0</p> <p>Internal elevations: 403.000007.00001.12.007B.0</p>	<p>The number of drying modules has been reduced from 10 to 8 in the Amended Proposed Development, as the efficiency of each module has been improved.</p>	<p>403.000007.00001.12.007A.0_Drying_Module_Elevations-A3</p> <p>403.000007.00001.12.007B.0_Drying_Module_Elevations-A3</p>

		The modular configuration, containerised design, component plant and location of each drying module within Area A has not changed. External filtration systems have been added to each drying module which is described in the row below.	
External filtration systems in connection with the drying modules comprising:	New drawings	<p>Eight no. external filtration systems have been added, with one filtration system per module in the updated the Main Processing Site layout. The systems have been moved externally to achieve more efficient exhaust air dispersal, to comply with Environmental Permitting requirements.</p> <p>The filtration systems are located to the north of the drying module and comprise a raised filter unit measuring 6.5m in height (refer to drawing: 403.000007.00001.12.007C.0), condenser plant in containerised unit ((H)0.7m x (L)2m x (W)1.2m) (refer to drawing 403.000007.00001.12.007D.0) and Stack measuring 14m in height (refer to drawing: 403.000007.00001.12.007E.0)</p>	<p>Filter unit: 403.000007.00001.12.007C.0</p> <p>Condenser Plant: 403.000007.00001.12.007D.0</p> <p>Filtration stack 403.000007.00001.12.007E.0</p>
Silos for collection of dried PFA	403.000007.00001.12.006.0	<p>Four silos are still proposed, and their design remains unchanged.</p> <p>The silos have been moved from north of, to west of the drying modules. The arrangement of the silos has also changed to accommodate the revised road layout and external filtration system. As a result the silos are now arranged in two rows above two roads and closer to taller infrastructure on the adjacent Breedon site</p>	The drawing has not been updated.
Jet wash station	No detailed drawing	A jet wash station is now demarcated within the south west corner of Area A for vehicles leaving the Site. This is not a physical structure therefore there are no detailed drawings. The indicative location of the jet wash facility is shown on the Main processing Site Layout (Drawing ref. 403.000007.00001.12.002.P01)	No detailed drawing.
CHP Unit	403.000007.00001.12.008.0	The location, design and layout of the CHP Plant remains unchanged. The Unit is shown in detail on drawing ref. 403.000007.00001.12.008.0 and its proposed dimensions are ((H)15.0m x (L)19.5m x (W)6.0m)	403.000007.00001.12.008.0
Vaporisers and Gas tanks	403.000007.00001.12.010.0	<p>The updated layout for the Main Processing Site still proposes 2no. gas tanks and 6 no. vaporiser tanks, with 3 vaporisers per tank.</p> <p>The layout and arrangement of both components has changed to accommodate the updated layout. The gas tanks have moved closer to the CHP unit and the Vaporisers have moved to the east of the CHP unit.</p>	403.000007.00001.12.010.P01
Gas main	403.000007.00001.12.013.0	The Gas main located in the south west corner of Area A is unchanged.	The drawing has not been updated.
Existing DNO Equipment	No detailed drawing	The Electricity pylon and overhead lines and the Electricity Substation, located in the southern part of Area A are unchanged.	No detailed drawing
Optional location for the Water Treatment Plant	New drawing	<p>The Updated layout for the Main Processing Area includes an optional location for water treatment plant infrastructure, to the south of the electricity substation. An indicative footprint for the water treatment plant is shown on the updated Main Processing Site Layout drawing ref. 403.000007.00001.12.002.P01.</p> <p>The Plant would comprise two containerised units measuring: ((H)2.6m x (L)12.2m x (W)2.4m) as illustrated on drawing ref. 403.000007.00001.12.034.0.</p>	403.000007.00001.12.034.0

HGV Pull in	No detailed drawing	This component is unchanged and would still be located in the southern extent of the Processing Area adjacent to the access point. Refer to the updated Main processing Site Layout (Drawing ref. 403.000007.00001.12.002.P01) for its location.	n/a
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Restoration

- 4.21 The amended restoration scheme maintains the same fundamental principles as the previous design, in that it is biodiversity-led, delivered in phases, avoids importation of dedicated off-site fill material and delivers lasting benefits to the Site and surrounding area. The ambitions and the details of the restoration scheme has been revised in response to and in collaboration with key stakeholders such as NWT and NCC.
- 4.22 The amended restoration would be delivered progressively after the extraction of each Micro-phase is complete, meaning that restoration of one Micro-phase would happen concurrently with extraction of the subsequent Micro-phase, subject to planting seasons and other seasonal limitations. The amended Restoration scheme would comprise similar operations, namely, earthworks, soil movements, seeding and planting to create the desired landforms and habitats.
- 4.23 A detailed description of the amended restoration proposals is contained in ESA Chapter 5 ‘Changes to the Proposed Development’ and ESA Chapter 8 ‘Ecology & Ornithology’ (both Vol 1) and the suite of updated Restoration drawings is contained in ESA Appendix 5.4 ‘Site Restoration Plans’ (Vol 3) which includes an updated Indicative Masterplan and Restoration cross sections as well as a plan showing the change in landform heights across the Site.
- 4.24 Several features of the previous restoration scheme remain unchanged:
- Log piles and hibernacula along the strip of retained planting in the eastern corner of Area A (label 5 on ESA Figure 7.12);
 - Retention of existing hedgerow planting and supplementary tree planting along the northern boundary of the Site adjacent to Lound Low Road (label 7 on ESA Figure 7.12);
 - Areas of Managed grassland habitats and pasture located where the High Rise lagoons are currently sited (label 8 on ESA Figure 7.12);
 - The interpretation board at the confluence of the bridleway and realigned Footpath 1 southeast of Bellmoor Farm (label 11 on ESA Figure 7.12); and
 - Replacement tree and shrub planting along the southwestern perimeter of lagoon 1 where the conveyor and maintenance road enters Area A
- 4.25 Existing farming activities, including grazing of the Site where not being worked, and habitat management using sheep would be retained as per the previous restoration scheme. The amount

of grazing land post restoration is reduced compared to the Proposed Development, in the interests of biodiversity.

4.26 As per the previous restoration scheme, material would be taken from the top of the lagoons and lagoon embankments to fill the voids left by extraction in order to fill the extraction voids. This approach ensures that the Amended Proposed Development would still not need to import dedicated fill material and is necessary to create the proposed restoration landforms.

4.27 The amended restoration scheme does, however, propose to reconfigure several features including:

- Consolidation of open water areas within the Low-Rise areas and increased provision of shallow water features such as shallow water ponds, and reedbeds;
- Provision of wet grassland in a larger block towards the eastern end of Area A, rather than as a thin strip running through Area A creating a more distinct divide between wet and dry features as well as the addition of scrapes;
- Wet scrub is proposed in a transitional zone located at HR P2;
- Provision of a viewpoint/ bird hide in the north west corner of the High Rise area adjacent to the new Permissive Way;
- The concentration of proposed woodland in one or two larger linear strips within HR P1, HR P2 and HR P3; and
- The provision of a new drainage ditch system which broadly follows the amended conveyor and maintenance road route and accompanied by spurs.

4.28 The amended restoration scheme proposes a less comprehensive scheme of embankment removal which includes retention, in full, of the section of embankment which overlaps with the SSSI and retention of the northern embankment of HR P1, outside of the application boundary. With the exception of these two locations, under the amended restoration scheme the High-Rise lagoon embankments would be removed. The embankment in the SSSI would be retained and is shown on ES Figure 8.4 (Vol 2) and Sandstone Bund Profile (drawing ref. 403.000007.00001.12.013.0). The indicative restoration plan cross sections and landform change drawing contained in ESA Appendix 5.4 (Vol 3) illustrate how the topography of the Site would change following restoration.

4.29 The Amended restoration scheme also proposes a new network of permissive ways. The track along the western edge of the High Rise lagoons retains the same route and is now intended as a

Permissive way to be used by horseriders and bicycle users which connects into the existing Public Rights of Way (PRoW) Footpath 1 (FP1). The existing permissive way located between the High-Rise and Low-Rise lagoons would be controlled at either end with a kissing gate and metal gate with step over function and allows pedestrians and non-motorised users (NMUs) (horse-riders) with access to the restored Site except for a few occasions each year for maintenance. The maintenance access through the centre of the Site is repositioned and extended. This track would be controlled with metal gates at either end and also at the confluence with the realigned route of Footpath 1.

4.30 The Amended Proposed Development would still commit to management and aftercare of the land for up to 30 years for each extraction phase following restoration.

4.31 Delivering Biodiversity Net Gain in excess of 10% remains a key tenet of the restoration scheme. The Biodiversity metric for the amended restoration scheme, shows a figure of 43% is achievable for the Amended Proposed Development as a whole (across all phases at assumed extraction rates): far greater than sought by policy (10%) and increase in excess of 30% from the previous scheme. Mandatory BNG is not applicable to the Amended Proposed Development.

4.32 It is envisaged that significantly more detail of the proposed restoration would be secured by planning conditions that require the submission of detailed plans for each phase.

Planning Conditions

4.33 It remains the case that the over the lifetime of the development the understanding of the Site can change and the technologies and mitigations commercially available may evolve. DWD therefore maintains its request that the minerals authority seeks input from DWD and the Applicant to devise robust and appropriate conditions that meet the six planning tests.

5.0 PLANNING POLICY CONTEXT

5.1 This Section provides an update on the relevant planning policy and guidance at the local and national level as described in Section 6 of the Original Planning Statement as well as providing an overview of any new relevant policy or guidance.

Statutory Development Plan

5.2 There have been no changes to the documents which comprise the current Statutory Development Plan.

Material Considerations: National Planning Policy Framework

5.3 Since submission of the Planning Application the National Planning Policy Framework (NPPF) was updated on 5th September 2023 and subsequently updated again on 19th December 2023.

5.4 The changes made in the September 2023 update relate to policy on planning for onshore wind development in England and the changes made in December 2023 primarily relate to housing delivery and design.

5.5 These changes to the NPPF are therefore not relevant to the Proposed Development.

Material Considerations: the National Policy Statements

5.6 The Department for Energy Security and Net Zero has recently published the new Overarching National Policy Statement for Energy (EN-1) on 22 November 2023. This is expected to be designated by Parliament in early 2024. Both before and after designation this NPS is likely to be a material consideration in decision making on relevant applications that fall under the Town and Country Planning Act 1990 (as amended).

5.7 Paragraph 4.7.3 of EN-1 states that projects should look to use modern methods of construction and sustainable design practices such as the use of low carbon concrete. This establishes a strong expectation by government that all promoters of Nationally Significant Infrastructure source low carbon concrete for their projects, which will increase demand for low carbon cementitious materials, including PFA.

Emerging Policy

Nottinghamshire and Nottingham Pre-Submission Draft Waste Local Plan

5.8 Nottinghamshire County Council and Nottingham City Council are working together to prepare a new Waste Local Plan which will replace the previous Adopted Waste Local Plan (2002) and the Waste Core Strategy (2013). a Pre-Submission draft Plan was published in August 2023 for a formal consultation which ran until 11 October 2023.

5.9 The Draft document is accompanied by 12 Development Management policies relating to siting and environmental impacts.

5.10 The Applicant has reviewed the Draft Waste Local Plan and notes that although it relates to waste development and is of limited relevance to the RCEP Project, resource efficiency remains a key aspect of the County's Waste Management Strategy.

[Bassetlaw Draft Local Plan 2020-2038: Main Modifications](#)

5.11 Examination hearings for the Draft plan took place between November 2022 and January 2023. As part of this examination process, the independent Local Plan Inspectors have identified a series of Main Modifications.

5.12 The Applicant has reviewed the draft plan and notes minor changes to the wording of several draft policies which were listed in Section 5 of the original Planning Statement. The Applicant considers that these changes do not materially alter the interpretation of the policies.

Conclusions

5.13 No significant changes to the planning policy context of the Site have been made since the submission of the Planning Statement with the March 23 Application.

6.0 PLANNING POLICY ASSESSMENT

Principle of Development

- 6.1 The Amended Proposed Development retains the benefits of the original scheme whilst addressing a range of key stakeholder comments to minimise negative impacts, provides a significant range of additional mitigation measures and improvements to recreation and amenity as discussed in Section 4.0 of this Addendum. It is noted that this submission includes several additional documents that are not provided in response to the Regulation 25 Request, as discussed in Section 1 of this Addendum.
- 6.2 The submitted 'Need Study' outlines the significant benefit and undeniable need for development of this nature. It is important to note that since the application was submitted in March 2023, we are 2.5% closer to 1 January 2050, the date by which the UK is to reach net zero. Therefore, the need for development of this nature remains, if not more vital, in comparison to the original application.
- 6.3 The Applicant has held discussions to verify the extent of job creation and the positive impact this would have on local businesses and the economy. We have previously outlined that there would be around 20-30 jobs created directly at the RCEP Site. In addition to this, two businesses (both within two miles of the Site) estimate that a further 60 or more jobs could be created: a local haulage company representative has identified that 45 jobs could be created, and a local conveyor belt manufacturer has identified that up to 12 jobs could be created. The Applicant has also spoken with North Nottinghamshire College about apprenticeships and work experience that could be provided for by the RCEP. Further meetings with the college are planned for early 2024, with a view to including proposals for apprenticeships and work experience as part of the Amended Proposed Development.

Assessment

- 6.4 Planning Policy at all levels remains, in principle, supportive of the use of PFA. The Amended Proposed Development would retain all the benefits of the previous scheme in relation to its positive contribution to decarbonisation targets. The Amended Proposed Development also offers a less impactful scheme or works with additional benefits to amenity.
- 6.5 Since the March 23 submission, the Department for Energy Security and Net Zero published an updated Overarching National Policy Statement for Energy (EN-1) on 22 November 2023. Paragraph 4.7.3 states that projects should look to use modern methods of construction and sustainable design practices such as use of sustainable timber and low carbon concrete (our underline). This

underlines the important role of low carbon concrete, of which PFA is an important component, as a building product.

- 6.6 The direct and indirect employment referred to above represent skilled and other permanent jobs likely to be capable of being taken up locally given the RCEP's lead in time, operational lifetime, and the comparable nature of employment and skills to established extractive industries in the county. Providing apprenticeships or other training opportunities with relevant providers in the county will improve the likelihood of this taking place. These material benefits to local employment, apprenticeship and training could be secured by conditions.
- 6.7 The assessment of the Proposed Development remains unchanged in relation to the principle for the Amended Proposed Development. It is therefore considered that the Amended Proposed Development at the Site continues to be strongly supported by relevant planning policy.

Climate Change

- 6.8 The Amended Proposed Development would continue to extract and export PFA for use in, primarily cementitious applications which would make a positive contribution towards delivering radical reductions in the embodied and process carbon emissions within the cement industry thus helping to address the causes of climate change.
- 6.9 Chapter 15 'Climate Change' of the ES and the accompanying Greenhouse Gas assessment has not been updated because the Amended Proposed Development would continue to deliver significant carbon savings over its lifetime, i.e. approximately 96% less than the production of an equivalent amount of Portland Cement.)
- 6.10 The Amended Proposed Development has been able to maintain positive carbon savings while providing additional environmental mitigation and enhancements along with an improved restoration scheme by:
- Reducing the number of drying modules from 10 to 8 whilst maintaining operational efficiency and output;
 - Moving the filtration system for each drying module externally to also improve operational efficiency;
 - The provision of an additional weighbridge and additional internal road within the Main Processing Area prevents unnecessary vehicle movements and lowers the tendency for vehicles to idle reducing vehicle emissions;

- The maintenance road and conveyor are now extended progressively in one direction (eastwards) within Area A resulting in shorter and more efficient vehicle movement and less power consumption. The maintenance road and conveyor were previously extended across the extraction area by Stage 2 in order to extract the Low Rise lagoons. By contrast, this would not be reached until Stage 7 of the Amended Proposed Development;
- The spur conveyor would facilitate shorter movements between the extraction face and main conveyor and preventing inefficient vehicle movements to and from the Temporary Processing Areas (evident for example during the extraction of HR P3 in the Proposed Development (Sheet 7 of the Phasing Plans (Rev. 0) ref. 403.000007.00001.12.020-030.0)); and
- Continuing to avoid the need to import dedicated fill to construct the restoration scheme minimising vehicle movements.

6.11 The above changes show that the Amended Proposed Development by way of its design and operational practices would continue to deliver very significant carbon savings and make a positive contribution towards addressing climate change in accordance with NMLP Policy SP3 and NPPF paragraph 154.

6.12 Planning policy for climate change also requires consideration for climate change resilience. Comments have been made.

6.13 The EA commented on the Flood Risk Assessment requesting clarity about the heights of the embankments and interaction between the Site and floodwater. The Applicant has since provided the Environment Agency with additional information which is submitted as ESA Appendix 5.4 'Site Restoration Plans' and Figure 8.4 'Land Retained within the Site' (Volume 3) and Chapter 9 'Hydrology, hydrogeology and flood risk' as well as holding meetings with the EA. The slide deck from the meeting on 20 September is provided in ESA Appendix 9.4 and in the meeting, the Applicant confirmed the following:

- The Amended Proposed Development would retain the embankment which overlaps with the SSSI in its entirety maintaining the hydraulic separation and resilience which currently exists;
- The restoration would only use dedicated fill material that is available on-site, with only engineering material, such as clay, imported if required;

- The parts of the Site which could potentially interact with floodwater would retain their sandstone bunds at a height above the simulated 1 in 100 year + 30% CC flood level (with an allowance of 300 mm freeboard);
- The Amended Proposed Development would therefore not hydraulically connect to the River Idle or its floodplain, alter existing flow paths or introduce new flow paths for flood water to interact with third party receptors;

6.14 It is therefore considered that the Amended Proposed Development including the amended restoration scheme would continue to be resilient and not reduce vulnerability due to the impact of increasing flood risk from climate change, in accordance with NMLP Policy DM2 and NPPF paragraphs 158-161.

Local Amenity

- 6.15 Nottinghamshire County Council Public Health requested more information on the impacts of the Proposed Development on public health and human receptors arising from dust/air quality. Further concerns were raised in relation to dust/air quality by Via East Midlands (Geo Environmental) and the ecological consultees.
- 6.16 NCC and BDC Environmental Health Department requested more details in relation to the proposed lighting scheme and the potential impacts on receptors.
- 6.17 Both NCC and BDC Environmental Health Department requested confirmation that no noticeable odours generated by Proposed Development. The Applicant has confirmed that there are no noticeable odours associated with PFA. A letter was sent to the Environmental Health Department independently covering this matter.

Relevant Changes

- 6.18 As a result of the proposed changes to the working scheme, the following additional control measures have been proposed for implementation, all of which would be detailed within the Dust Management and Monitoring Plan (DMMP) (see Technical Appendix 13.7, Volume 3 of the ESA):
- Additional screening along northern and southern boundary for the duration of extraction activities in the Low-Rise, increasing screening to around 5 m at locations closest to sensitive receptors (combination of working depth and screen bunds/fencing);
 - A sealed screening bund would remain along the western boundary of each of the phases until extraction has been completed, ensuring the working phases are not susceptible to prevailing winds from the west;

- Working area to be dampened down during extraction activities and sealed with soil cement or compacted overnight and on weekends during period of dry weather ('dry days' = days with <0.2 mm rainfall);
- Static water suppression system installed to cover PFA inspection laydown area, to be used on a continuous basis on 'dry days';
- Oversized PFA stockpile to be dampened down twice daily on 'dry days';
- Unvegetated areas of soil to be dampened down twice daily on 'dry days';
- A dust monitoring scheme for dust deposition off-site (see the Dust Management and Monitoring Plan, Technical Appendix 13.7 in Volume 3 of this ESA); and
- A series of contingency measures, as detailed in the DMMP

6.19 The Amended Proposed Development includes updates to the lighting scheme in response to stakeholder comments. Temporary lighting is now proposed within Area A during the winter when there is less available daylight to illuminate the extraction processes within the void. The lighting would be to illuminate the extraction Micro-Phase sited at ground level moving deeper into the void as the PFA is extracted.

6.20 The transfer of PFA to the Main Processing Site within Area C would be undertaken via the covered conveyor and it is envisaged that this would not be lit.

6.21 It is envisaged that lighting within the Main Processing Plant (Area C) would comprise mobile towers to light the operational areas, including in front of the Materials Storage Building and the silo filling area, and around the offices and car park as required. In addition, there would also be a requirement for motion sensor security lighting around the Materials Storage Building and the car park to provide security. These would be wall mounted and placed below the tree line.

6.22 An Air Emissions Risk Assessment (AERA) has been undertaken with regard to the following plant at the Main Processing Site, Area C within the Site:

- A Specified Generator (SG) comprising a single 6.1 MWth natural gas fired combined heat and power engine, i.e. the CHP plant; and
- A drying plant, comprising of 8No. Coomtech SMR Kinetic Energy Dryer units.

6.23 It is noted that several dust control measures were embedded into the design of the Proposed Development and have been enhanced as part of the amended application. However, a number of

changes to the working scheme are proposed, which would further reduce its potential for dust generation. These are summarised briefly below, and within Chapter 13 of the ESA:

- The scheme has been designed to further limit open air handling of PFA. This includes using enclosed conveyor belts to transport PFA from the extraction face in Area A to the Main Processing Site in Area C. Importantly, once the PFA is fed into the conveyor hopper in each Micro-Phase, the handling and processing – from this point on – is fully enclosed. This effectively provides a cut-off for potential dust generating activities at the conveyor hopper in Area A.
- Extraction phases further divided into smaller Micro-Phases of around 0.5-1.0 ha (<1% of total extraction area) reducing the spatial extent of the potential dust source (soil stripping, extraction, exposed ground).
- The Mobile Screening plant located in proximity to working face has been relocated as extraction progresses. This would reduce onsite haulage movements on unpaved routes and therefore potential dust generation.
- One single mobile screen plant would move along the working face as extraction progresses, located within the extraction void, thereby reducing the spatial extent of the potential dust source, and increasing distance to receptors.
- Soils stripped from each Micro-phase would be stored within active phase for use in progressive replacement. Storage of soils in long-term soil store would be a contingency measure when absolutely necessary. Storage areas and bunds would be seeded with wildflower mix. Therefore, reducing potential dust sources through less on-site haulage movements and stable storage.
- Oversized PFA from Screen Plant stockpiled in single designated area within extraction area, >100 m from Site boundary with a maximum footprint of 150 m² x 3 m high. The restrictions on stockpiling magnitude and location would keep potential dust sources to a minimum.

Assessment

6.24 The Applicant has provided additional information regarding the proposed lighting scheme in Chapter 5 of the ESA. All lighting would be angled downwards and into the site/works area. Artificial lighting would be spatially limited and focussed on active works/processing areas and would not affect wider habitats or features. As stated in the Regulation 25 Letter, it is envisaged that the final and full details of site lighting would be secured by a suitable planning condition.

- 6.25 The full AERA is included as Technical Appendix 13.8. Volume 3 of the ESA. The AERA has concluded that in relation to human health, the process contributions from the CHP engine and the drying plant do not lead to any exceedances of the relevant standards. With regard to ecological receptors, the AERA has concluded that the process contributions are considered to cause no significant pollution.
- 6.26 Taking into account the reduction in dust potential from the changes to the working scheme together with the additional dust control and management measures proposed, the overall conclusion of the original assessment of a 'not significant' effect with regard to dust impacts is considered to remain.
- 6.27 The Dust Management Plan (DMP) which was submitted in Appendix 13.7 of the ES has been updated to reflect the revised operations at the Site, and the updated 'DMMP', is included as Technical Appendix 13.7, Volume 3 of the ESA. The DMMP includes updated procedures to mitigate dust, including dust control measures, a dust monitoring scheme and a meteorological monitoring scheme.
- 6.28 It is therefore considered that the Proposed Development complies with NMLP Policy DM1 in respect of odour, lighting, air quality and dust.

Noise

- 6.29 During the statutory consultation period, NWT queried the noise threshold criterion of 55 dB(A) used to inform the assessment of noise impacts at sensitive ecological receptor locations. NWT viewed that a lower threshold criterion of 45dB(A) would be more appropriate.
- 6.30 Subsequently, NWT also stated that it is *'unclear from the Noise chapter whether shredding and screening have been factored into the noise assessments'* and raised that *'there appears to be no assessment of the effects of conveyor sirens'*.
- 6.31 Additionally, following the submission of a technical note to Via East Midlands, queries were raised in relation to noise generating infrastructure and activities such as the shredder and dewatering method. Further information was also requested regarding noise level changes on nearby roads during construction.
- 6.32 NCC Natural Environment also raised concerns regarding Noise impacts on bats and breeding birds and whether there would be noise screening/acoustic enclosures.

Relevant Changes

- 6.33 Several changes to the Amended Proposed Development have been incorporated into the noise impact assessment which result in beneficial noise changes when compared to the submitted ES.
- 6.34 The revised working scheme as detailed in Section 4.0 of this addendum demonstrates that progressive soil stripping will be undertaken in a staged manner in a series of Micro-phases followed progressively by the PFA extraction process. The phased approach of periodic soil stripping will limit the area of PFA exposed at any one time to a few days per year as shown in Table 6.1 below. To illustrate this, HR P3 the largest phase by area would require a total of 11 days for soil stripping over a 3.7 year extraction period which equates to less than 3 days per year. The highest frequency of soil stripping would occur during the extraction of LR P1, requiring approximately 6 days of soil stripping over a 4 month period. This would still be considerably less frequent than in the Proposed Development. The reduced frequency means the Applicant has greater control over when soil stripping can occur, meaning noise would be of a shorter duration which would further reduce the potential for noise impacts in the vicinity of noise sensitive receptors when compared to the original processes for soil stripping discussed in the submitted ES. A similar approach would be taken for embankment removal and infilling meaning that the Amended Proposed Development allows greater control over noisier site activities.

Table 6.1 Phase working timings

			ESTABLISHMENT, EXTRACTION AND RESTORATION - APPROX. TIMINGS			
PHASE ID	PFA TONNES	SIZE (HA)	SOIL STRIPPING (DAYS)	EXTRACTION (YEARS)	EMBANKMENT REMOVAL & INFILLING (DAYS)	LANDFORM PROFILING, PLANTING & SEEDING (MONTHS)
HR P1	916,000 t	11.5	12	3.1	15	9 to 12
HR P2	933,000 t	10.3	11	3.1	15	9 to 12
HR P3	1,109,000 t	14.6	11	3.7	15	9 to 12
HR P4	1,323,000 t	12.2	11	4.4	15	9 to 12
HR P5	583,000 t	6.1	11	1.9	10	9 to 12
HR P6	584,000 t	8.6	11	1.9	10	9 to 12
LR P3	208,000 t	6.3	10	0.7	8	9 to 12
LR P4	344,000 t	8.2	10	1.1	8	9 to 12
LR P5	254,000 t	7	10	0.8	8	9 to 12
LR P1	87,000 t	3.3	6	0.3	5	9 to 12
LR P2	116,000 t	4.4	5	0.4	5	9 to 12

6.35 Furthermore, the changes to the PFA Extraction Process detailed in Section 4.0 and the submitted ESA are expected to reduce noise impacts on noise sensitive receptors:

- Extraction would commence by digging an extraction base down to approximately 5.0 m depth in the south west section of HR P1, effectively screening all extraction works and reducing noise levels at NSRs;
- Extraction phases would work through the site progressively from the south west to the north east and be undertaken below surface level throughout the duration of the extraction of PFA within Area A, therefore all extraction works would be screened from NSRs;
- All extraction and processing activities would take place at a lower level than considered within the ES, and behind the existing sandstone lagoon embankments;
- Vehicle movements would be minimised across the site due to the removal of Temporary Processing areas 1-3, therefore reducing HGV movements and consequently, noise;
- The conveyor belt would be covered to reduce noise emissions and a spur conveyor added to further reduce vehicle movements.

Assessment

6.36 Additional noise modelling has been undertaken to predict the likely reasonable worst-case noise levels at each noise sensitive receptor (NSR) for soil stripping, initial dig down phase, extraction and restoration, HGV movements and additional considerations.

6.37 The results of the noise modelling presented in the Chapter 12 of the submitted ESA indicate that there would be no exceedance of the noise threshold criteria of 70 $L_{Aeq, 1hr}$ dB at any of the identified Noise Sensitive Receptors (NSRs) during short-term activities that by their nature have the potential to be noisier (see Planning Practice Guidance, paragraph 022, reference 27-022-20140306²). This includes soil stripping, embankment removal during restoration or dig-down activities as part of site establishment. Note that these activities would generally only take place for a number of days each year and no longer than four weeks and can be designed to take place at times that are less sensitive for certain species and ecology, such as turtle dove. It is anticipated that this detail could be secured by a suitable planning condition.

² <https://www.gov.uk/guidance/minerals#Noise-emissions>

- 6.38 The results of the noise modelling presented in the Chapter 12 do not identify any exceedance of the noise threshold criteria of 55 LAeq, 1hr dB during all main extraction operations (i.e. 'normal' operations as defined in Planning Practice Guidance³).
- 6.39 The results of the noise modelling presented in the Chapter 12 of the submitted ESA indicate that the noise level increase on the local road network due to HGV movements associated with the operational phases is likely to be a maximum of +0.2 dB.
- 6.40 Therefore, it is considered that impacts on the identified NSRs would be of minor significance during all phases of the Amended Proposed Development.
- 6.41 In order to address specific comments raised by consultees, the following plant and activities have been considered in the noise assessment:
- Conveyor Belt Sirens - There would be no regular use of conveyor belt sirens during operational phases. There may be times where emergency sirens would be used. However, any noise relating to emergency situations such as conveyor belt sirens or other emergency alarms have not been considered within the scope of the noise impact assessment due to their limited temporary and infrequent use.
 - Shredding and Screening Activities - The noise calculations presented in Section 12.6 of Chapter 12 of the ESA take into account both shredding and screening activities. To present a worst-case scenario, the assessment draws on similar noise impact assessments undertaken for shredding and screening activities. The source noise levels utilised within the noise modelling and provided in Volume 3, Technical Appendix 12.1 of the ESA are the reasonable worst-case source noise levels and includes an uplift of the source values to take into account uncertainties in the source data.
- 6.42 During restoration activities, the removal of embankments would generate a degree of noise impact. The highest noise levels in the location of residential noise sensitive receptors due to embankment removal works are 65 and 69 dB LAeq,1hr at the Wetlands Fisheries and Low Farm/Sutton Grange Farm. The nearest embankment removal works to these locations are HR P5/P6 and LR P5. The predicted noise levels of this magnitude are due to the embankment removal

³ <https://www.gov.uk/guidance/minerals#Noise-emissions>

activities being undertaken within approximately 60-100 m of the nearest NSRs – limited to a maximum of 11 days per phase.

- 6.43 As such, Chapter 12 of the ESA identifies that there would be no exceedance of the noise threshold criterion of 70 dB $L_{Aeq,1hr}$ for short-term activities at any of the residential receptors. Therefore, the magnitude of impact is considered negligible.
- 6.44 Chapter 12 of the ESA concludes that, when the magnitude of impact is considered in combination with the sensitivity of the residential NSRs, the effects arising from soil stripping, initial dig down activities, main extraction activities and embankment removal activities in the location of residential receptors are all of minor significance.
- 6.45 It is therefore considered that the Proposed Development complies with NMLP Policy DM1, Policy DM4, policy 48 of the draft Local Plan, and other relevant policy in respect of noise.

Recreation

- 6.46 The Amended Development has retained the recreational benefits of the original scheme. However, the Applicant has sought out opportunities to provide additional benefits to local amenity through the provision of new permissive footpaths and byways across the restored Site which will improve connectivity and recreation opportunities within the area. The permissive pathways will be integrated into the restoration scheme and provide access for pedestrians, horse riders and bicycles, with deterrents for motorbikes. The Applicant has contacted Nottinghamshire Wildlife Trust to discuss the potential for permissive routes throughout the Site to connect to existing networks for recreation within the reserve. The details of any precise arrangements would be controlled by planning condition.

Assessment

- 6.47 As the Amended Proposed Development provides additional benefits to local amenity and recreation compared to the original scheme it remains that the Amended Proposed Development conforms with NMLP Policy DM7 and the recreation elements of Policy 8 of the Sutton Cum Lound Neighbourhood Plan.

SSSI and Ecological Protection

- 6.48 Constructive comments were received from Nottinghamshire County Council (NCC), Nottinghamshire Wildlife Trust (NWT) and Natural England (NE). Comments and concerns largely related to the clarification on survey and results, impact on designated sites (the Sutton and Lound Gravel Pits SSSI and Sutton and Lound Local Wildlife Site), and the direct impacts on habitats and species.

6.49 Natural England requested further mitigation in the interest of Sutton and Lound Gravel Pits Site of SSSI and River Idle Washlands SSSI, specifically:

- Screening for noise in consultation with relevant stakeholders to ensure no significant noise impacts on bird populations within the SSSI;
- Determine and secure the details of the restoration, its implementation and aftercare once finalised; and
- Safeguard soil resources through all phases with a Soil Management Plan

6.50 NCC also stated that the submitted restoration scheme needs to be more ambitious for it to be considered biodiversity led and to maximise the opportunity for meaningful biodiversity net gains. NCC also requested an updated Biodiversity Net Gain calculator output.

Relevant Changes

6.51 Substantial changes have been made to the Amended Proposed Development to specifically reduce potential impacts on the SSSI and ecological features. They are reported in greater detail in in ESA Volume 1, Chapter 8 'Ecology and Ornithology' and Chapter 9 'Hydrology, Hydrogeology, and Flood Risk', and comprise:

- Progressive extension of the maintenance road and the conveyor at a lower level behind the lagoon embankments to provide visual screening, and the use of a Micro-Phasing approach to confine potential dust and noise generating activities to a smaller area (less than 1% of the Area A at any given time);
- Similarly, replacing the Temporary Processing Areas with spur conveyors would reduce the distance between the extraction face and reception hopper, thereby allowing open-air operations to be confined to a much smaller area (i.e. one Micro-Phase at any time) and more easily controlled;
- The main conveyor and maintenance road is now positioned further away from the Sutton and Lound Gravel Pits SSSI, thereby increasing physical separation distance between PFA and the SSSI, to further aid the management of potential noise and dust impacts;
- The permanent retention of a large section of the lagoon embankment designated as SSSI, avoids direct impacts on the SSSI ensures a permanent buffer is retained;
- A layer of PFA would be left in situ at the base of the excavation and the PFA extracted 'wet'; therefore, there would be no abstraction of groundwater. The excavation of PFA below the

water table would be undertaken in such a way so as to ensure that the water levels on site are allowed to stabilise and be in equilibrium with the surrounding groundwater levels. Therefore, there would be no impact to the water levels in the SSSI or LWS from the excavation of PFA (see Section 10.3.2). As there would be no abstraction of groundwater the volume of water discharged to soakaway would also be greatly reduced.

- The updated restoration scheme would deliver a significantly greater area and diversity of valuable habitats that would continue to be delivered through a progressive restoration programme. The changes have resulted in an increased BNG of up to 43%, and importantly, include a commitment to 30-year aftercare.

Assessment

- 6.52 The bat survey results figure has been updated. Figure 8.5 in ESA Volume 2, shows the full results from the transect survey. Overall, the results show a similar pattern of occurrence, with concentration of records around the Site boundaries close to more mature vegetation. Figure 8.6 in ESA Volume 2 shows the reptile survey area. Individual refugia locations were not recorded; however, they were spread through potential habitat at a density commensurate with the survey method.
- 6.53 Chapter 8 (Ecology and Ornithology) of the ESA contains a review of the dates of surveys undertaken to date and assesses the need for any to be updated. As stated within the Monitoring and Mitigation plan, all surveys would be repeated at appropriate times during operation to ensure proposed mitigation prescribed in the ES and also within the ESA is still appropriate and proportionate ahead of works. As such, it is anticipated that some surveys would be repeated in 2024 ahead of Site establishment areas and phases scheduled for extraction early in Area A.
- 6.54 The bat roost assessment survey found evidence that barn owls (a protected species) had bred in 2023 in the nestbox that was referred to in the ES, but at which point no previous evidence of successful breeding had been obtained. As such, the Amended Proposed Development will identify suitable offsite locations for two nestboxes (a new one and the relocation of the one on the Site) which would be informed by further survey post consent and agreed with NCC and NWT.
- 6.55 Two turtle doves were recorded in song on/near the southern boundary of the Site by NCC. NWT is actively working to enhance the adjacent Idle Valley Nature Reserve for turtle dove. Therefore, annual surveys would be undertaken throughout the lifetime of the Amended Proposed Development to confirm if turtle doves are present, their locations and any signs of successful breeding. It is proposed that this would comprise six visits between late-April and mid-June,

focusing on suitable habitat within the Site and a 200 m buffer. Surveys would be completed within three hours of sunrise, when turtle doves are most active, and map all encounters with the species to determine likely territories and habitat use. It is proposed that these surveys and other specific measures to protect turtle dove would be formalised through a suitable planning condition for a 'Turtle Dove Management Plan' or similar.

- 6.56 Notwithstanding the improvements that have been made, there is still the potential for birds to be affected by noise generated by the Amended Proposed Development. Effects on birds from noise are predicted to be not significant as reported in Chapter 12 of the ESA.
- 6.57 The potential for effects on habitats remains as assessed in the submitted ES. Further consideration was given to an area in the north western corner of Area B that is still an active work area, used for storage and deconstruction of lorries. The majority of the area is clear of vegetation but with some habitats around the margins that contain some OMH features. However, these features are insufficient for it to constitute OMH. The maintenance road and conveyor route would pass through this area but would be sited on disturbed areas that do not support the habitat. Given the phased approach, the marginal habitats in these areas would be monitored prior to any effects occurring to determine if further OMH features establish and any mitigation measures that are required.
- 6.58 The effects of the excavations on adjacent waterbodies have been assessed in Chapter 8 and Chapter 9 of the ESA. The retention of a limited amount of PFA in the base of the excavation and the wet working proposals, including no pumped dewatering, means that there would be no hydraulic connection with either the SSSI, or the LWS. In addition, the design of the Proposed Development no longer includes for abstraction of water.
- 6.59 It is also noted that 1.47 hectares of land within the SSSI will be retained. As stated previously, the revised working scheme avoids lowering the SSSI embankment as part of the restoration proposals, thereby avoiding the direct loss of any land from the SSSI. The retention of the areas of the SSSI/LWS as part of the Amended Proposed Development would reduce the effects on the fauna features they support, such as birds, bats, badgers and reptiles. Some loss of the LWS from Area A would still be required to recover the necessary infill material to minimise areas of open water and achieve the proposed restoration landform.
- 6.60 A total of 3.41 ha of the LWS would be lost, equating to approximately 0.7% of the 512 ha LWS. The area of LWS that would be lost is located along the embankment forming the north western boundary of Area A. Loss of this qualifying feature would be fully compensated for by the restoration, through the creation of diverse, high-value habitats to at least replace and possibly

improve the value to bats in the long-term. Creation of such habitats is made possible through the provision of valuable restoration material from the embankment that facilitates the proposed restoration landform, including avoiding further areas of open water.

- 6.61 The restoration material in the north western embankment is fundamental to achieving the necessary fill balance to achieve the proposed restoration landform, particularly now that the fill material from the SSSI embankment is no longer available. Retaining the SSSI embankment has necessitated creating some lower level habitats such as wet woodland. The loss of any further fill material from the scheme, including the significant amount of material contained in the north western embankment, would require the creation of deeper areas of open water; a habitat which ecological consultees have stated is not desirable. It is therefore considered that a suitable balance has been struck here between retaining the more valuable SSSI embankment and the need to provide fill material to achieve the restoration landform that facilitates the valuable habitats proposed.
- 6.62 No significant effects would occur to qualifying interest features in the SSSI/LWS nearby and further details are contained in Chapter 13 of the ESA.
- 6.63 Effects on other designated sites remain unchanged from those described in the submitted ES.
- 6.64 All lighting would be angled downwards and into the site/works area. Artificial lighting would be spatially limited and focussed on active works/processing areas and would not affect wider habitats or features likely to be used by barn owl, or other nocturnal species, and therefore would not displace creatures or create any barrier to movement
- 6.65 A combination of the evolving Amended Proposed Development and views from stakeholders, including a meeting with NCC and NWT in June 2023, has resulted in a significant revision to the indicative restoration scheme that was submitted with the ES. It is proposed that the scheme would also be subject to an aftercare period of 30 years from the completion of restoration of each phase. The Revised Restoration scheme is assessed under the relevant Section of this Planning Statement Addendum.
- 6.66 The Biodiversity Net Gain (BNG) has been updated to take account of the revised restoration plan and has been evaluated both from an overall BNG and by grouped phases. The calculations identify that the following percent net gains are potentially achievable for the entire Amended Proposed Development (at the conclusion of all restoration at the end of all extraction) for the following biodiversity units:

- Area-based Habitat Units – 43.64% Net gain
- Hedgerow Units – 134.18% Net gain
- River Units – 100% Net gain

6.67 With regards to Policy DM4 of the NMLP, the Amended Proposed Development, with the application of additional mitigation measures identified in Chapter 8 of the ESA, including the Proposed Restoration Strategy, would not result in an adverse effect on the Sutton and Lound Gravel Pits SSSI or surrounding habitats and species, and would deliver substantial biodiversity net gain. The Proposed development is therefore compliant with Policy DM4 and Policy DM9 of the Bassetlaw CS DPD.

Restoration

6.68 Comments were made by NWT and NCC relating to the balance of agricultural land and biodiversity enhancement within the Restoration Plan. The plan submitted as part of the ES identified:

- Extensive areas of open water;
- Long and narrow areas of wet grassland and reedbed with a dominance of pasture land; and
- Scattered blocks of woodland and shelterbelts.

Relevant Changes

6.69 The Restoration Plan has now been amended using the identified overarching design principles and importantly, to retain the small section of SSSI. Taking on board the comments received from NCC and NWT the overarching principles of the restoration strategy have been amended to provide the following:

- Greater emphasis on biodiversity with more wet grassland and reedbeds and a reduction in pasture;
- The complete retention of the embankment located within the Site which also coincides with the SSSI;
- The provision of increased public access and links to the Idle Valley Nature Reserve through the addition of several new permissive byways and footpaths within and across Area A;
- No importation of dedicated fill material from off-site;
- Progressive restoration and landscape management;

- The minimisation of vehicle movements over the restored landscape through the use of covered conveyors;
- The replacement of large open water bodies with more shallows and clusters of ponds to encourage amphibians and aquatic invertebrates, using on-site restoration materials to raise levels, including the lagoon embankments thereby unlocking valuable soils;
- Fewer but larger woodland blocks to maximise and improve woodland habitats; and
- A commitment to manage the land (aftercare) for up to 30 years for each extraction phase following Restoration.

6.70 As such the Amended Restoration Plan (Figure 7.12 – 7.14 in ESA Volume 2) now incorporates the following:

- Fewer areas of open water which would be located within the Low-Rise where the lack of fill material necessitates their presence, with the shallower areas facilitated by using fill material sourced from the High Rise;
- The inclusion of shallows, reedbed, scrapes, and groups of ponds in the Low-Rise and eastern section of the High-Rise;
- The repositioning of wet grassland in larger blocks towards the eastern end of Area A, rather than as a thin strip running through Area A;
- The removal of the large shelter belts and scattered trees, and substituted with extensive open areas of wet grassland, sustained by water levels maintained on/around existing groundwater levels to facilitate natural, seasonal flooding, which is possible owing to the fill material balance in this part of the Site;
- The provision of a new drainage ditch system to moderate water levels and facilitate seasonal flooding;
- An increase in the areas of wet grassland, shallows and reed bed balanced against the area of pasture across the Site, and the removal of pasture within the Low-Rise to be replaced with species rich grassland;
- The concentration of new woodland in one or two larger blocks within HR P1, HR P2 and HR P3, away from the areas of wet grassland. It is proposed that the woodland areas would also include areas of scrub along the woodland edges; and

- An increased BNG of up to 43% overall once all extraction and restoration is completed, and importantly, a commitment to 30-year aftercare from the completion of each phase.

Assessment

6.71 The Amended restoration plan has undergone significant positive changes in response to comments received by key stakeholders. In comparison to the original Restoration Scheme, the amended Restoration Scheme reduces environmental impacts, increases on site biodiversity net gain and includes a 30-year commitment to aftercare. As such it is considered that the largely improved restoration scheme complies with relevant policy.

Water environment and flooding

6.72 Several consultees have raised queries relating to potential impacts of the Proposed Development on Flood Risk and potential impact on water levels within the nearby LWS and SSSI.

6.73 Both the NWT and NCC Ecology requested further information in ES Chapter 10 – Hydrology, Hydrogeology and Flood Risk. Both consultees were concerned with the impact of the previously proposed dewatering activities associated with PFA extraction, in the context of the potential for this to affect water levels within the adjacent SSSI.

6.74 Although Natural England did not object to the application, the commentary provided stated that the extraction of the majority of the PFA would be above the water level of the SSSI (note that only around 17% of the PFA is below water table) so it is unlikely to lead to changes in ground water levels as surface water run-off will be un-affected. Natural England noted the requirement for an abstraction licence

6.75 The EA objected to the application for the following reasons:

- The FRA does not:
 - Adequately model the flood risk to identified receptors as a result of the extraction works and retained embankments.
 - Adequately demonstrate that the retained embankments will be structurally safe.

6.76 Hydraulic modelling, the height of the retained embankments, and clarification on whether the embankments will be constructed prior to the extraction works, if the embankments will remain in place post restoration, were requested.

6.77 After discussions with the Applicant, the EA has confirmed that hydraulic modelling for the following scenarios was required:

- Pre-extraction baseline;
- Post-extraction with the presence of the retained embankments; and
- A theoretical ‘breach scenario’ modelling post-extraction without the presence of the retained embankments.

Relevant Changes

- 6.78 Following the changes to the working scheme and excavation methodology, dewatering is no longer required and a layer of PFA would be left in situ at the base of the excavation to prevent upwelling of the underlying groundwater. Bund stability analysis has been shared with EA. Therefore, there should be no hydraulic connectivity between the onsite perched water above the PFA layer and the SSSI or LWS off site and therefore no impact to the water levels in the SSSI or LWS from the excavation of PFA.
- 6.79 Furthermore, the contact area between the PFA and underlying sandstone aquifer will not be increased. Therefore, there will be no increase in the risk to water quality at the nearby SSSI or other sensitivity receptors as a result of more PFA in contact with the ‘clean’ underlying groundwater.

Assessment

- 6.80 Following the relevant changes listed above no significant adverse effects are anticipated to water levels or quality in the surrounding water environment. The changes to the extraction method reduce potential hydrogeological related risks following the adoption of wet working.
- 6.81 Chapter 9 of the ESA identifies that at restoration stage the removal of the PFA through the operation of the Amended Proposed Development is likely to result in improved long-term groundwater quality at the Site.
- 6.82 With regard to Flood Risk, none of the changes to the Proposed Development would result in any new or different flood risk effects when compared to those detailed in Chapter 9 of the submitted ES.
- 6.83 The Proposed Development would not result in unacceptable impacts on flood risk and would reduce impacts on water resources and hydrology in comparison to the original scheme, as seen in Chapter 9 of the ESA. It is therefore considered that amended Proposed Development is compliant with Policy SP2 of the NMLP, emerging Policy ST39 and other relevant policy.

Ground Conditions

- 6.84 NCC provided a consultation response outlining the following key points (paraphrased):

- Bulk blended samples of PFA have been obtained for geochemical analysis. Discrete samples should be taken from separate layers through the full thickness of the deposits for contamination testing.
- The geotechnical test suite was based on suitability of the material for use in concrete and not on the environmental / contamination risks. Therefore, the potential contaminants of concern, such as heavy metals, asbestos and hydrocarbons have not been tested.
- Whilst it is indicated that no asbestos containing materials (ACMs) were observed, no laboratory asbestos screening has been reported. This is required to identify the presence or otherwise of free fibres, fibre bundles and/or small fragments of bulk ACM within the PFA.
- Groundwater quality monitoring has been carried out but the locations are very widely spread. This could miss locally more contaminated areas. This could be significant in terms of the potential impact of disturbing contaminated areas. Also, the groundwater concentrations are likely to increase during operations within the areas that are exposed.
- No leachability tests have been carried out. It would have been useful to be able to compare PFA leachability test results from the 3no. PFA groundwater monitoring wells with leachate results from locations in between.
- Surface water monitoring – one location monitored. Would normally expect there to be sampling points upgradient, mid-way and downgradient of the site.
- Dust management plan – specific comments were made to provision of further detail for; management of PFA stockpiles; dampening measures employed for stockpiles; recording of dust concentrations in air; restrictions imposed on the worksite during extreme weather conditions.

6.85 The Applicant has undertaken further assessment to characterise the constituent nature of the PFA and has also further developed the extraction methodology and dust mitigation measures to further reduce the potential for dust emissions at the Site.

Relevant Changes

6.86 Full detail of the further ground investigations undertaken can be found in Chapter 9 of the ESA. The investigations, carried out to address the consultation comments received, included testing samples from multiple locations and depths across Area A of the Site to provide both lateral and vertical delineation of the PFA, as requested.

6.87 The PFA was scheduled for a suite of analysis that comprised:

- asbestos identification and quantification – 96 samples;
- metals – 62 samples;
- poly-aromatic hydrocarbons (PAH) – 62 samples; and
- Semi-volatile organic compounds (SVOC) – 62 samples.

6.88 PFA samples were also selected for leachate analysis that comprised:

- metals – 25 samples;
- poly-aromatic hydrocarbons (PAH) – 25 samples; and
- Semi-volatile organic compounds (SVOC) – 25 samples.

6.89 There were no concentrations of PAH or SVOC detected above the laboratory limit of detection (LOD) in any of the samples. Metals were detected at anticipated concentrations for the PFA (iron, magnesium, titanium, manganese, barium, strontium, vanadium, zinc, arsenic). No asbestos was detected in 95 of the 96 samples. A small, isolated fibre bundle of chrysotile (white) asbestos was encountered at one location in HR P2.

6.90 Additional ground investigations and field visual asbestos screening and asbestos identification and quantification analysis would also be undertaken as part of a further characterisation exercise before PFA excavation is commenced in each extraction phase. It is proposed that this would be secured by a suitable planning condition and/or as part of the site environmental permit. Further detail is provided in ESA Technical Appendix 10.1, Update to Preliminary Land Quality Risk Assessment (PLQRA) (Volume 3).

6.91 An update of the Dust Impact Assessment (DA) (Volume 3 TA 13.6 of the ESA) and Dust Management and Monitoring Plan (DMMP) (Volume 3 13.7 of the ESA) have also been provided, which include significantly more detail and additional measures, such as a monitoring regime, and being more consistent with the higher level of information usually reserved by planning condition. It is also notable that the revision in the extraction methodology would ensure further dust protection. The extraction scheme, including the recent amendment and the adoption of the Micro-phased approach, are very important from a dust management perspective.

6.92 For the PFA leachate analysis, none of the 25 samples contained PAH or SVOC above the laboratory limit of detection (LOD). Metals were detected at anticipated concentrations for the PFA

(magnesium, boron, strontium, titanium, arsenic, molybdenum). The results of the leachate analysis are comparable to the concentrations detected within the underlying groundwater.

6.93 As stated previously, the extraction methodology has also been updated such that the below groundwater PFA would now be worked wet, and no pumped abstraction and associated discharge is proposed; thereby removing this potential contamination source. Notwithstanding this and taking into consideration the comments from NCC, the Applicant has committed to a groundwater and surface water monitoring programme. This would include monitoring prior to construction to establish baseline conditions for surface waters and groundwater, and ongoing monitoring thereafter. As a minimum this would include surface water monitoring at locations on the River Idle upstream, mid-point and downstream of the Site.

6.94 It is proposed that this would be secured by a suitable planning condition and/or as part of the site environmental permit. Further detail is provided in ESA Technical Appendix 10.1, Update to Preliminary Land Quality Risk Assessment (PLQRA) (Volume 3).

Assessment

6.95 From the ground investigations and PFA characterisation investigation undertaken to date, there is no indication that any significant hydrocarbon, other chemical or asbestos contamination is present in any areas of the Site. The analysis of the PFA has demonstrated its constituent components are in accordance with the concentrations of a typical PFA.

6.96 The analysis has confirmed the detection of metals and the absence of any trace signature of organics (PAH, TPH, SVOC). There was an absence of asbestos detected within the PFA with the exception of a very small asbestos fibre bundle at one isolated location. The findings of the analysis are consistent with historical records and anecdotal evidence provided to the Applicant, all of which indicate that only PFA was disposed of at the Site.

6.97 The PFA at the Site originates from Cottam Power Station. The PFA was piped as a slurry (a mix of PFA and water) from the power station to infill former sand and gravel extraction pits. The Cottam Power Station Historic Building Record⁴, produced in 2018, states that the PFA generated by burning of coal was directed by ducts within an enclosed process to electrostatic precipitators of steel construction located outside and separate from the main generating building, where the particles were separated from exhaust gases into collection hoppers and transferred by pipes to be

⁴ <https://www.rictyler.com/project/1960s-coal-fired-power-stations/>

mixed with water to form a slurry. The slurry was then piped to a dust slurry pumphouse and off-site through the pipeline to the Sutton and Lound lagoons, i.e. the Site.

6.98 No other materials were added into the PFA collection and disposal process, at source, within pipelines or by tipping directly into the lagoons. EDF, the owner of Cottam Power Station, has confirmed in correspondence that the PFA collection and delivery system was completely enclosed. This has also been confirmed to the Applicant by individuals who lived next to and worked at the Site when it was operational.

6.99 The EA has confirmed in its planning consultation response dated 2 May 2023 that (underlining added): *“Lound Quarry, near Lound, was permitted to receive non-hazardous waste...According to our site inspection records, this site was found to be compliant with their permit whilst it was active. No enforcement action was taken”*. Note that PFA is classed as ‘non-hazardous’ by the EA, whereas asbestos, for example, would be classed as ‘hazardous’.

6.100 The Discovery Strategy, contained in ESA Technical Appendix 5.3 ‘the outline Construction Environmental Management Plan (oCEMP)’ (Volume 3) notes that it is not immediately clear how the single instance of asbestos was found to be present, as waste documentation does not indicate any asbestos disposal at the Site. Furthermore, that this asbestos cannot conclusively be attributed to any specific known asbestos-containing material (ACM), although it is plausible that the material could have originated from asbestos textile jointing material used as caulking for pipework⁵ at the Site. Note that anecdotal evidence provided by those living close to and working at the Site when it was operational, along with historic aerial imagery, indicate that all such pipework was removed from the Site following operation. It is possible, for example, that the occurrence of asbestos could have broken free at this time or during maintenance.

6.101 The ‘trace’⁶ occurrence of asbestos encountered does not meet the definition of asbestos as regulated under regulation 2 of the Control of Asbestos Regulations 2023, owing to the very small

⁵ In common with any brownfield site there is the potential for asbestos contamination associated with former structures since asbestos is frequently found in structures built as recently as the 1990s. A study ‘The Public Health Significance of Asbestos Exposures from Large Scale Fires’ by the Health Protection Agency in 2007 states “...Mineral fibres, including asbestos, are widespread contaminants of the environment and everybody will have been exposed at some stage. In the literature a wide range of background levels are reported. The then UK Department of the Environment (DoE) estimated a level of regulated fibres of 0.0005 f/ml above background (DoE, 1991).

⁶ HSG 248 (2nd Edition) Asbestos: The Analysts Guide (May, 2021). It is the authoritative source of asbestos analytical procedures within Great Britain. The document provides a definition of ‘trace’ asbestos. A section on sampling and analysis of soils and made ground is also included.

quantity identified. However, notwithstanding this, the Applicant is proposing to adopt a precautionary approach during operation, including defined management measures and procedures. These would be carried out in accordance with the requirements of the Control of Asbestos Regulations 2012, the accompanying Approved Code of Practice and Guidance as well as CAR-SOIL industry guidance. This is in common with conventional approaches to the redevelopment of brownfield land. The specific measures to be implemented, including a watching brief and contingency plans, are outlined in the Discovery Strategy contained in Technical Appendix 5.3 'the oCEMP' (Volume 3),

6.102 On the basis of existing PFA characterisation data, the asbestos risk level to on-site workers is assessed as being very low, if not entirely negligible. Furthermore, the high existing natural moisture content of the PFA, combined with operational controls designed to mitigate fugitive dust emissions would suppress any potential fugitive emissions at source. Consequently, it is reasonably concluded that the potential risk of exposure to off-site receptors would also be negligible. For further detail on these conclusions please refer to the Discovery Strategy, contained in ESA Technical Appendix 5.3 'the oCEMP' (Volume 3).

6.103 Proportionate investigations and other management and mitigation measures, as proposed by the Applicant, are consistent with the overall policy approach adopted by Bassetlaw District Council to the economic development of brownfield sites. Paragraphs 9.6.1 and 9.6.2 of the emerging Bassetlaw Local Plan describe the brownfield land resource in Bassetlaw as follows:

"The majority of vacant brownfield land in Bassetlaw is subject to some known contamination issues as a consequence of their development history, including past mining, industrial or power generating activity.

Contaminated land is used to describe land that due to its previous development history or geology is considered to be polluted by heavy metals, oils and tars, chemicals, gases or asbestos substances."

6.104 Paragraph 3.32 of the emerging Bassetlaw Local Plan places substantial significance on the redevelopment of High Marnham and Cottam Power Stations, for example, involving much larger sites with substantial buildings and structures known to have considerable remediation requirements. In contrast, the ground investigations to date across the Site have identified extremely few items of interest, commensurate with the EA's permitting records. There are also ongoing long-term regeneration projects within the Bassetlaw District, such as the former Harworth Colliery site, where significant contamination has been identified, including asbestos, and where development is able to commence due to the imposition of appropriate management measures.

Note that the permitted uses at the former Harworth Colliery site include close to 1,000 homes, playgrounds, and a school.

6.105 The leachate analysis of the PFA is comparable to the concentrations detected within the underlying groundwater. Metals were detected at anticipated concentrations for the PFA (magnesium, boron, strontium, titanium, arsenic, molybdenum) and there were no concentrations of PAHs or SVOCs detected above the laboratory limit of detection (LOD). The data demonstrates that there would be no increased detrimental impact or further deterioration in groundwater quality, as existing concentrations within the groundwater exhibit similar concentrations to the leachate recorded from the PFA. In addition, the removal of the overlying PFA would ultimately result in removal of a contaminant source and therefore provide betterment over a period of time.

6.106 It is therefore considered that the amended ESA and changes to the Proposed Development adequately address the concerns raised by NCC. The assessment concludes that no significant effects are predicted on ground conditions and contamination during the construction, operation or restoration phases of the Proposed Development. The Proposed Development would be subject to environmental controls throughout all phases and the Proposed Development would provide betterment from a contamination perspective, through removal of the PFA and protection of identified receptors. On this basis the Proposed Development is compliant with NPPF Paragraph 183.

Transport

6.107 NCC Highways Department provided comments during the statutory consultation period. No objections were raised in respect of the Proposed Development and recommended conditions were provide the case officer.

Assessment

6.108 The Amended Proposed Development does not include any changes to ES Chapter 14 (Traffic and Transport). As such the Amended Proposed is considered to be compliant with relevant planning policy, as there would not be an unacceptable impact in relation to traffic and transport.

Heritage

6.109 NCC Built Heritage provided no objection to the Proposed Development and concluded that impact on the setting of the Bellmoor Farm complex (non-designated HA) and the setting of Langford church designated heritage asset, would be 'less than substantial' in terms of harm.

Assessment

6.110 The Amended Proposed Development does not include any changes to ES Chapter 11 (Cultural Heritage). As such the Amended Proposed is considered to be compliant with relevant planning policy, as there would not be an unacceptable impact when considering impacts on cultural heritage.

Soils and Soil Handling

6.111 No objections were received in relation to soils or soil handling. However, the updated working scheme includes improved soil management and avoids the need for bulk imports of soils. Relevant Changes

6.112 Soil stripping to be limited to up to 12 days per year and be completed progressively in Micro-phases as previously described. Any potential impacts would therefore be periodic and limited, focussed over a short-time frame. It would be possible to strip approximately 3500 m² of soils per day based on the assumption that the soil thickness averages at approximately 300 mm across Area A.

6.113 Soils stripped from each Micro-phase would be stored in a designated area within the phase for later replacement or stored in a longer-term soil store adjacent to LR P5 if necessary. The use of the longer-term soil store would be minimised, and only used when absolutely necessary in order to reduce the need for vehicle movements to transport soil.

6.114 Additionally, the Amended Proposed Development includes the use of approximately 1.4 million m³ of soil, sand and sandstone on top of the former lagoons and within the embankments to avoid areas of open water as requested by NCC and NWT.

6.115 The proposed changes do not propose the use of additional soil or stripping of additional land. Therefore, it is considered that the assessment of the Amended Proposed Development remains consistent with the Proposed Development. As such the Amended Proposed Development would not adversely affect the land and it therefore complies with Policy DM3.

Design

6.116 Following the comments of various stakeholders and the Regulation 25 Letter the design has undergone several changes both to reduce impacts and increase the efficiency of the extraction process.

6.117 The main drivers of the changes were the following:

- Issues relating to dust, noise, and visual impact as a result of the proposed extractive and restoration processes within the High-Rise and Low-Rise areas within Area A. The scheme has now been amended to provide more clarity and detail, as well as improve the robustness of measures to manage these potential impacts as detailed in Chapters 7, 12, and 13 in Volume 1 of this ESA.
- The loss of land and habitat from the Sutton and Lound Gravel Pits Site of Special Scientific Interest (SSSI) and the level of provision for biodiversity net gain reflected in the proposed restoration plan as provided within ES Volume 3 Appendix 8.5. This has now been revised to retain the small area within the SSSI that overlaps with the Site and, in addition, further refinements to the landscape and habitat design to significantly improve biodiversity net gain. Further information can be found in Chapters 7 and 8 of this ESA. An updated restoration plan is also provided in Figures 7.12 to 7.14 in ESA Volume 2, and in Appendix 5.4, ESA Volume 3.

Assessment

6.118 Further details on the Design changes can be found in Section 4.0 of this Addendum, within the ESA and the Overview of Revised Proposals Document. The Amended Proposed Development offers a significantly more efficient and less impactful design on the surrounding area. As such the Amended Proposed Development is considered to be compliant with Policy DM6 of the NMLP and other relevant policies.

Landscape and Visual

6.119 The Regulation 25 letter requested additional information following comments from NCC's Landscape advisors in Via East Midlands. The requested information comprised:

- An updated Zone of Theoretical Visibility with a focus on visibility of the operational plant. A discussion of the findings should also be provided including why viewpoints are then discounted from further assessment.
- Annotated wirelines for the existing viewpoint photography panoramas to illustrate impacts on viewpoints 7,10 and 11 to indicate where the restored landform and tree removals /retention would be. This should also illustrate the height and visibility of the proposed silos emerging above surrounding vegetation (grouped adjacent to the existing silo) and also include a 'single frame' type view of the existing and proposed silos. It would also be helpful to include any temporary 'amenity' bund locations if relevant.

- An annotated aerial plan showing locations for boundary mitigation such as temporary bunding, hedgerow maintenance and advance planting. These should have regard to users of Public Rights of Way and nearby residents. Particularly for the western boundary opposite Bellmoor Farm, there should be some certainty and a selection of the preferred approach.
- An updated cumulative sites plan to show new residential and commercial developments in the locality. Accompanying commentary should discuss visibility from these sites or any screening of views.

Relevant Changes

6.120 The landscape mitigation features included within the Amended Proposed Development seek to reinforce and improve boundary treatments as follows:

- Some advance planting would be carried out before the commencement of extraction primarily along Lound Low Road to supplement the screening provided by the existing hedgerow and trees to be retained, and along the western edge of Area B to provide screening and replace vegetation to be removed;
- The sandstone lagoon embankments retained until the end of extraction in the relevant phase in order to substantially screen activities; and
- Additional targeted amenity measures, such as bunding, would also be provided as a temporary measure along sections of Lound Low Road and the western boundary of HR P3 and HR P4. These bunds would utilise soils stored for later use during restoration activities and would be seeded with wildflower annuals. Wind amelioration bunds would also be provided within the RCEP Site between phases HR P4, HR P5, and HR P6, which would limit views across the Site. These bunds would restrict visual permeability into and across the Site during the restoration works.

6.121 In terms of landscape and visual impact the key changes that have informed the revised assessment are identified below:

- The conveyor corridor has been repositioned away from the edge of Area A and semi-fixed Temporary Processing Areas 1-3 have been removed from the scheme, taking this elevated infrastructure away from the edge of the RCEP Site;
- An adjustable covered spur conveyor would be used to take the movable reception hopper close to the working extraction face;

- The maintenance road and conveyor would be extended progressively through the void at a lower level as the PFA is extracted, which is facilitated by working west to east. This allows the infrastructure to be positioned further away from sensitive receptors and facilitates screening by the existing lagoon embankments;
- The phasing order has been amended to run from west to east. The primary reason for changing the phasing order is to facilitate extraction always taking place at a lower level and be contained behind the existing lagoon embankments, therefore restricting visual effects. Note that previously the proposal to work from east to west after HR P1 required an elevated conveyor and maintenance road corridor running in an elevated position close to the southern boundary of the Site and in closer proximity to the properties at Bellmoor Farm;
- Each phase would be split into a number of small Micro-phases. These would be soil stripped individually followed progressively by the PFA extraction process, with only around 1% of Area A undergoing active extraction at any given time.
- A temporary soil bund would be provided along the northern boundary of LR P5 and HR P6 that adjoins Lound Low Road and PRoW NT|Sutton|BOAT|7 and along the western boundary of HR P3 as an additional and targeted visual amenity mitigation measure;
- The maintenance road and conveyor crossing between HR P1 and HR P2 has been moved further away from the properties within Bellmoor Farm; and
- The existing vegetated embankment within the SSSI is to be permanently retained to screen activities from adjoining footpath users and visitors to the Idle Valley Nature Reserve.

Assessment

6.122 During the soil stripping phase some temporary vehicle movements and disturbances that would influence the landscape character. The revised method of stripping within smaller Micro-phases (approx. 0.5-1.0 ha in size) would limit the effects on landscape character as the area of activity would be confined to a smaller area than previously stated in the ES. This would noticeably reduce landscape effects placing them on parity with general agricultural activities. The effects on landscape character would therefore be less than the effects previously reported in the ES.

6.123 During operation, the landscape effects at Year 1 would be concentrated within HR P1 and the main vehicular access from the A638, and would remain as predicted previously stated in the ES (refer to Section 7.12, Volume 1 of the ES).

6.124 As stated previously, an ongoing progressive restoration is proposed following the extraction of PFA. These changes would similarly enhance the existing landscape character of the Site and its environs which would provide a beneficial change not only for the Site but to the wider landscape setting (refer to the Amended Restoration Plan Figures 7.12-7.14 in ESA, Volume 2).

6.125 The individual stages of the Amended Proposed Development would have varying effects, in terms of the visual receptors affected and the extent of the change effected. During the Construction phase, the main changes include:

- The conveyor corridor has been repositioned away from the edge of Area A and semi-fixed Processing Area 1-3 has been removed; and
- The maintenance road and conveyor would be extended progressively through the void as the PFA is extracted and would be positioned at a lower level behind the existing lagoon embankments where extraction is ongoing.

6.126 The main changes to visual impacts from those considered in the submitted ES include:

- The use of the existing sandstone embankments and low bunds to screen or filter views to extraction and processing activities. The change to the phasing order would enable working at lower levels, which would provide benefits in terms of visual amelioration;
- Reduced area of working minimises the extent of effects;
- The maintenance road and conveyor have been moved further away from sensitive receptors; and
- This would have reduced effects on Bellmoor Farm and Bellmoor Cottage (and the other properties in this location) (R2).

6.127 With regard to visual effects, the primary difference between the previous and the revised restoration strategy is the increased focus on a self-sufficient and low intensity restoration, using the restoration materials available on-site. This would result in a reduction in vehicular movements and no importation of fill material. This would result in lower effects in terms of visual disturbance. New permissive pathways would also be provided post-restoration which would enable public access to the Site and establish a new link with interpretation boards to the Idle Valley Nature Reserve. This would have visual and recreational benefits at the Site and local level.

6.128 Following the request for additional viewpoints, advice has been sought from VIA East Midlands (NCC's landscape representative) on the choice of viewpoints. Following the preliminary desktop

review to identify sensitive receptors a list of viewpoint locations was included in the EIA Scoping Report, and in the VIA scoping response (SC/4471 dated 4 November 2022) it was confirmed that: *‘We agree with the range of viewpoints chosen – these cover recreational receptors on Public Rights of Way (PRoW), residential receptors within the closest settlements, and vehicle receptors on adjacent roads.’* Further viewpoint recommendations were made by VIA in their response to the ES (ES/4518, 21st September 2023). These were reviewed on the Site walkover on the 11th of October. The ESA provides a full Viewpoint Assessment in Chapter 7 (Landscape and Visual Impact Assessment).

6.129 In conclusion, the revised approach to extraction and restoration and its embedded mitigation would reduce the landscape and visual effects of the Amended Proposed Development in a notable way. There are some residual significant effects in terms of the EIA Regulations predicted on landscape or visual amenity receptors, but these are restricted to:

- The landscape character at the Site level;
- PRoW (Sutton FP1) within the Site; and
- Pronounced beneficial effects post-restoration.

6.130 Further information on the significance of these impacts can be found in Chapter 7 (Landscape and Visual Impact) of the ESA.

Following changes to the Proposed Development resulting in reduced landscape and visual effects, it is considered that the Amended Proposed Development complies with relevant landscape and visual policies.

7.0 SUMMARY AND CONCLUSIONS

- 7.1 This Planning Statement Addendum has been prepared in support of the Amended Proposed Development, which represents the fruition of an extensive process of consultation and detailed technical discussions with key consultees. During the period since the close of formal consultation on the original application, the Applicant and its advisors have fully considered all relevant consultation responses as well as the Regulation 25 Request from NCC. The Applicant has engaged with statutory bodies such as the Environment Agency and other stakeholders such as NWT.
- 7.2 The Applicant is appreciative of the time taken by NCC and consultees in preparing responses and has consequently re-examined every aspect of the RCEP with its existing, but expanded, advisory team while retaining the same red line boundary, and retaining or enhancing all of the potential benefits of the RCEP. The use of PFA as an alternative to Portland Cement is a vital solution for decarbonising the inherently carbon intensive process of cement manufacture and concrete production, and thereby safeguard huge levels of employment directly and indirectly in the county and beyond. The need for sustainable alternatives is only expected to grow as 2050 approaches. It is reasonable to consider that all sources of PFA that are accessible and environmentally acceptable will need to be exploited to meet these needs. The submitted 'Need Study' outlines the significant benefit and undeniable need for development of this nature, and relative to other PFA deposits (all of which are subject to environmental designations or sensitivities and are typically in rural locations), in this specific location. The need case set out in the 'Need Study' describes matters of government policy and strategy that are substantial material considerations in favour of the Amended Proposed Development.
- 7.3 The Amended Proposed Development represents an important contribution to meeting these needs, in a location that contains large quantities of high quality PFA with good road links and is made environmentally acceptable through the management, mitigation and enhancement measures described in this document and in the ES and ESA. In particular the revised extraction methodology working progressively eastwards through the Site, adopting the principle of 'Micro-Phasing', whereby only around 1% of the Site is actively extracted from at any given time, is a major improvement that reduces various potential impacts at source. The revised extraction methodology allows for wet working, further ameliorating potential air quality impacts and avoiding hydrological changes.
- 7.4 The permanent retention of a large section of the lagoon embankment along the southern boundary of the Site, including the land where there is an overlap with the adjacent SSSI, increases

noise attenuation to local land uses. This and the entire suite of additional measures to suppress dust, noise and visual impacts during extraction are included and can be secured by condition.

- 7.5 The amended restoration scheme includes significantly improved Biodiversity Net Gain and public access that balances the benefits of new access to the natural greenspaces created with nature conservation aims, with a major increase in Biodiversity Net Gain - far in excess of the policy minimum whether measured by phase or across the project lifecycle. These amendments have been received positively by environmental consultees and again can be secured by planning conditions.
- 7.6 This Planning Statement Addendum and the ESA comprehensively demonstrate that climate change, and local recreational interests, will experience significant benefits if the Amended Proposed Development were to go ahead.
- 7.7 It has further been demonstrated that potential amenity, noise, ecological, SSSI, water environment, transport, heritage, soils, and landscape and visual impacts have been avoided, minimised, mitigated for or enhanced, and generally are temporary in nature owing to the time limited nature of the operation and the comprehensive progressive restoration scheme which will deliver substantial ecological and landscape and visual benefits once complete. The mitigation hierarchy has therefore been demonstrated. Conditions are capable of securing conformity with all proposed or necessary mitigation measures.
- 7.8 There have been no relevant changes to the planning policy context or built environment context that alter the conclusions reached about the unaltered elements of the Proposed Development in the Planning Statement submitted in March 2023. The Proposed Development accords with all national, regional and local planning policy and there are no material considerations weighing substantially against the grant of planning permission.
- 7.9 In the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004 it is considered that a number of material considerations weigh heavily in favour of granting planning permission for the Amended Proposed Development, including compliance with the NPPF and the substantial body of need in wider strategy and policy, and the limited and generally temporary residual impacts.
- 7.10 It is therefore respectfully requested that planning permission is granted.