Our Ref: 1932YOU_DIS_PC7
Your Ref: SO/2024/123960/01-L01

15th April 2024

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Dear Sue

RE: Environment Agency Position on the Discharge of Condition 7 (Remediation Options Appraisal and Remediation Strategy) Attached to Planning Permission 129197/FO/2021

We acknowledge receipt of your letter dated 4th April 2024 (your ref: SO/2024/123960/01-L01) stating that the Environment Agency (EA) are not yet in a position to recommend discharge of Condition 7 (Remediation Options Appraisal and Remediation Strategy) attached to Planning Permission Ref: 129197/FO/2021 and also the additional comments received 09 April Via email. The initial comments are addressed in the initial section of this letter with the secondary comments presented in the second section of this letter.

The justifications given by the EA for reaching this position are based on aspects of the submission which the EA feel require further clarification. These aspects are summarised as follows:

- The approach to achieving end-of-waste criteria for the replacement of materials within the development area such that it will not require further legislative control under the Waste Framework Directive (WFD).
- Potential discrepancies in the remediation strategy with respect to excavation depth.
- Why the proposed remediation strategy does not attract the need for a groundwater activity permit.

The purpose of this letter is to provide the required clarification, thus enabling the EA to reconsider their position with respect to the discharge of Condition 7.

INITIAL EA (4 APRIL) AND EHO COMMENTS

EA Comment: We do not agree with some of the key factors in deciding the remediation approach and the path to reuse of materials as a good proportion of the materials on site can be considered a waste at this time. Therefore, we require further clarity on the approach to achieving end-of-waste criterion for

the replacement of materials within the development area such that it will not require the need for further legislative controls under the Waste Framework Directive.

End of Waste

It is our understanding that the above comment relates to definition of waste and associated protocols and permitting. We therefore set out our approach to End of Waste and materials re-use in the following.

Whether or not a substance or object meets the legal definition of waste must be decided based on the facts of each case and interpretation of the law is ultimately a matter for the courts. Nevertheless, the view expressed by the EA National Permitting Service (NPS) during pre-application discussions that all Made Ground present at the Site is already 'waste' has thus far gone unchallenged. Working on the unchallenged assumption that all Made Ground is indeed waste at the point of excavation, the Remediation Strategy identifies two routes by which excavated materials that are suitable for proposed use (after potential treatment) shall be demonstrated to have ceased to be 'waste'.

The first route, which is applicable to all 'aggregate' produced from inert waste inputs, is the Waste and Resources Action Program (WRAP) Quality Protocol, which sets end of waste criteria for the production of aggregate from inert waste. This route, which was first suggested by the EA Local Area Groundwater and Contaminated Land Team in our meeting in May 2023, was welcomed by the remediation project team as a significant step forward. The intention in this letter is not to reproduce the content of the WRAP Quality Protocol herein, but rather to acknowledge the document and signpost to Sections 5.3 and 11.7 of the Options Appraisal and Remediation Strategy where the necessity to adhere to the Quality Protocol is stipulated. Furthermore, in-keeping with the WRAP Quality Protocol, the requirement for VertaseFLI to prepare a Factory Production Control Document (FPCD) to outline the operational processes and the associated quality control measures is enshrined within the Strategy. The FPCD, while not material to the Options Appraisal and Remediation Strategy for Condition 7, shall be completed for internal use prior to commencement of aggregate production from the site-won inert waste.

The second route, which is applicable to all 'soils' produced from permissible waste inputs, shall be a self-assessment based on the end of waste test set out in Article 6(1) of the WFD. In undertaking a self-assessment, account shall be taken of the relevant guidance published by the EA and Defra and it is understood from this guidance that the EA may check the self-assessment and may disagree with the result of the assessment. Nevertheless, the self-assessment cannot be undertaken until such time that the soils have been produced. The end of waste test ensures that the soils meet the following four conditions: (i) they have a specific purpose; (ii) there is a need for the soils to be re-used on site; (iii) the soils meet technical requirements associated with their specific purpose; and (iv) use of the soils will not lead to adverse environmental or human health impacts. Soils not

deemed to have met the four conditions of the end of waste test shall continue to be Regulated as waste.

Importantly for the EA in the context of the Planning Regime, all materials to be re-used during implementation of the remediation strategy (regardless of their status in the context of the waste regime) shall undergo chemical verification to confirm their suitability for proposed use. This verification requirement is clearly set out in Section 11 (Verification Plan) of the Remediation Options Appraisal and Remediation Strategy submitted to support the discharge of Condition 7. Protection of the environment and human health during implementation of the remediation strategy shall be controlled via the Environmental Permitting regime through which the EA shall undergo additional and separate consultation (a process that is currently underway) which will seek to ensure no need for future additional legislative controls. Further related comments were raised and dealt with in the additional comments which can be seen overleaf.

EA Comment: We have also identified a number of discrepancies in terms of the approach being adopted, including the depths within the former clay extraction void proposed and the introduction of further groundwater monitoring boreholes that, without additional information and methodology, could potentially attract the need for a groundwater activity permit.

Each of the above comments are dealt with in turn below.

Discrepancies in the Approach with Respect to Excavation Depth

From the context of the EA's comment, we have interpreted this as meaning discrepancies in the approach to excavation of the waste material beneath the site. We have reviewed our documentation and are unable to find specific instances of discrepancies. However, we accept that this may be the case in such a large document with cross-referencing to other documents and appendices. Therefore, for the avoidance of doubt, the methodology described in the *Dynamic Strategy – Deeper Excavation Protocol for LRM C&D and HRM Areas,* included as Appendix F of the Remediation Options Appraisal and Remediation Strategy, sets out the definitive approach to excavation depths that underpins the remediation strategy. A related point is also dealt with under point 4 overleaf.

Groundwater Activity Permit

Further groundwater monitoring boreholes will be installed as part of the remediation works. (see section 9.13, 9.15 and are also discussed in the verification sections 11.11, 11.12, 11.13 and 11.14) It is proposed that a number of these boreholes are designed to extend into the underlying sandstone aquifer. Where this is the case, and the boreholes extend through the identified waste mass, all practical and reasonable precautions will be taken to prevent the downward migration or direct discharge of contaminants into the deeper aquifer. This shall be done through standard protective drilling techniques such as double casing or ODEX drilling as well as utilizing the natural ground conditions in the form of the lower permeability Glacial Till clays that are present beneath the waste and overlying the deeper aquifer.

With regard to the abstraction of water, the works have been designed in such a way that the only "water" that will be abstracted from the site during the works in any significant quantity will be landfill leachate. It is our understanding that abstraction licenses, where required, apply to either surface water or groundwater and not landfill leachate. The separation of landfill leachate from either groundwater or surface water is demonstrated by the EA in their guidance note (LFTGN02) titled *Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water* (February 2003) and by the fact that landfill leachate is considered a waste within WM3 (waste codes 19 07 02* or 19 07 03).

Any abstraction of water that is not considered landfill leachate shall be done so under exemption at either less than 20m^3/day or under *Regulation 5 Small scale dewatering in the course of building or engineering works* of The Water Abstraction and Impounding (Exemptions) Regulations 2017 that allows abstraction of up to 100m^3/day for up to 6 months.

Environmental Health comment: They advise that confirmation is still required in regard to when the data from the post remediation gas monitoring will be provided. Will this be part of the validation report for the remediation works or an addendum report for the development application? They need to make sure this information is provided and it is agreed when it will be provided.

We can confirm that data from post remediation gas monitoring will be provided as part of the validation report on completion of the remediation which will then enable the design of any protection measures installed as part of the development. The design and detail of the protection measures will be managed via the development application.

EA DETAILED COMMENTS (9 APRIL)

Since the initi*al comments the following additional EA comments have been shared by the Local Planning Authority (email dated 9 April 2024):*

1. *The report suggests in point 4.2.2.1 that there is 677,000m3 of made ground material. This corresponds with a volume that we got from the submissions in support of the permit application. However, table 8-1 (s. 8.3.1) suggests a remediation volume of 272,247m3.*

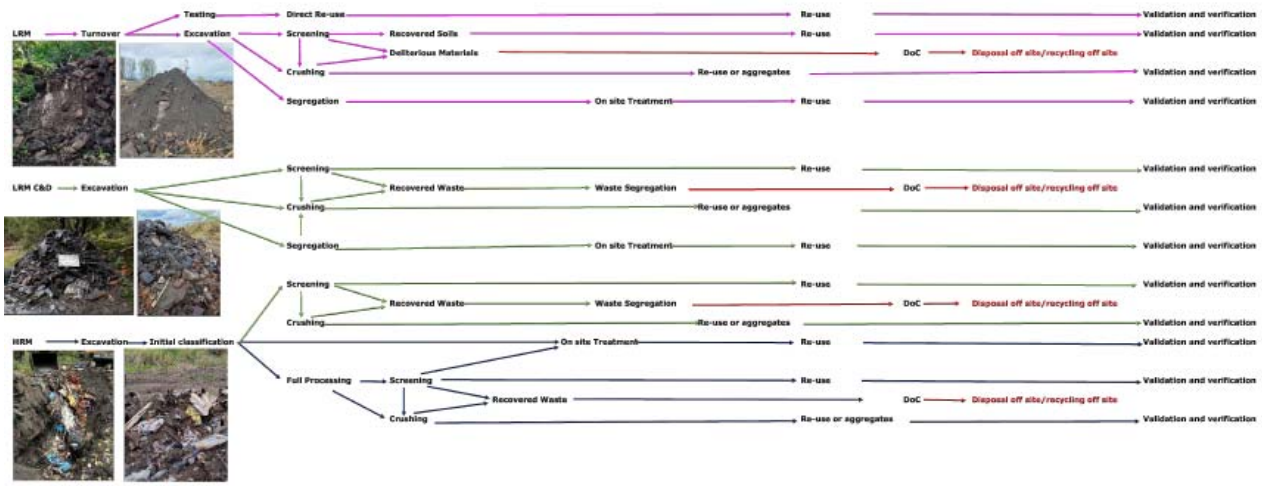
As it is written in the report in 4.2.2.1 we identify the total amount of made ground on site as 667,000m3. At Table 8-1 per the accompanying text we identify the proportion of that that is provisionally identified for remediation i.e. 272,247m3. Please note, 'provisional' is referenced because as was agreed during the various EA discussions and consultations and is set out in the strategy there is a dynamic element to the strategy which will mean that the volume may vary from this 272,247m3 if more waste needs to be excavated. Thus the two volumes should not correspond as the latter is a subset of the former.

2. *Tables and text do not clearly identify what the end-of-waste criteria will be and how that can be shown/proven for validation and verification purposes.*

It is worth noting that the final end of Waste position cannot be demonstrated until the works are completed of course as the testing and compliance data shall need to be collected during the remediation. Importantly for the EA in the context of the Planning Regime, all materials to be re-used during implementation of the remediation strategy (regardless of their status in the context of the waste regime) shall undergo chemical verification to confirm their suitability for proposed use. This verification requirement is clearly set out in Section 11 (Verification Plan) of the Remediation Options Appraisal and Remediation Strategy. Further commentary in relation to this permitting issue can be seen above in the "End of Waste" section of this letter.

3. *Drawing D4744_19 Treatment Train has all the materials being returned and declared suitable for re-use as well as validation and verification. This does not tie in with the current waste regulations and legislation especially when it comes to fines and other, soil-like, waste materials.*

Drawing number D4744_19 Treatment Train shows all materials and how they will be segregated and broadly classified. Country to the comment above the drawing clearly shows those materials that will not be re-used on site i.e. that which we classify as waste as being disposed off site under Duty of Care DoC). For ease those materials sentenced theoretically as waste (at this stage as works have not commenced of course) are in red. A snapshot of the drawing body is provided below for ease of reference.



4. *Tables 5-2 and 8-2 of the submitted strategy gives narrative to re-use criteria. These tables prove and indication of reuse but they neglect to consider the finer detail and overlooked key points in the criteria, such as for example the WRAP does not cover soils and soil-like materials and is based on clean aggregate production which is unlikely in a former landfill with known contamination issues; the same is true of the Highways 600 series specification that talks about clean material that is uncontaminated.*

We agree that we provide narrative with respect to the criteria and hope this is useful. Finer detail has not been overlooked but will for part of detailed documentation relating to re-use mechanisms such as the WRAP Factory Production Control Report and our End of Waste documentation. Rather the Strategy where we set out the principles. It is clearly stated in paragraph 11.7.1 of the submitted remediation strategy that we will prepare a factory production control document which will contain all the "finer detail". The onus to do this is on the producer and it being a protocol does not require EA approval. The Specification for Highways works series 600 (SHW) is a long established earthworks protocol and specification for controlling geotechnical aspects of compaction and earthworks which is commonly and almost exclusively used in earthworks for both contaminated and uncontaminated sites where primary and recycled materials are to be used in both highway and development project alike. Contaminated materials are not precluded from use un SHW but elements are such as hazardous waste and certain deleterious materials. SHW elements are a requirement to ensure that the materials used on site are geotechnically suitable and are an essential part of the overall specification but do not alone constitute the entire criteria for re-use. Finer details on the geotechnical specification are beyond the scope of a Remediation Strategy. Further commentary in relation to this permitting issue can be seen above in the "End of Waste" section.

Linked to this is the ongoing question about PFAS and the discovery strategy they will employ to sample for concentrations.

PFAS related information can be found specifically in sections 2.4, 3.6, 3.7 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 9.15, 9.16 and generally throughout the submitted Remediation Strategy.

5. *Finally, as discussed at the previous meeting and at the EA offices, the EA agreed to a variation in the excavation depths depending on where they were digging materials from. They agreed that across a good portion of the site where made ground was thinnest it was likely to be less than 1m, but in the former landfilled area it was going to have to be greater than 5m. This report returns to the blanket 3m dig and only 5 within the landfilled area – this is clearly not what was agreed and appears not to reflect the agreed variation.*

We do not agree with this statement and so have sought to clarify and summarise below:

The excavation depths proposed in the documents submitted vary across the site per the historical discussions and as presented and discussed subsequently in meetings. They are supported by the 3D ground model (Appendix B) and waste/material type classifications identified (see sections 8.4, 8.5 and Appendix F. They are justified within the options appraisal in section 6.0 of the submitted Remediation Strategy.

These are perhaps most easily summarised by 2 elements of the Remediation Strategy. Drawing number D4744_20 which defines 3 areas and the deeper excavation protocol found in appendix F. On the drawing the first area (hatched magenta) low Risk Material or basic made ground. This is to

be excavated to nominal 1m or natural which ever the shallower. No deep excavations are proposed in these areas. This corresponds with the "good portion of the site where made ground was thinnest it was likely to be less than 1m" as stated in the query. Much of the material in this area does not extend to beyond 1m in depth.

The second area LRM C&D (hatched green). Construction and demolition material not landfilled waste. Excavation depth proposed to be a minimum of 1m but automatically deepened to 3m where roads and sewer corridors are present. The deeper excavation protocol will be implemented here taking excavation depths to a maximum of 5m where necessary. Much of the material in these areas do not extend to beyond 5m.

The final areas (hatched blue) HRM or high risk material. Automatically excavated to 3m with the deeper excavation protocol taking these excavations to a maximum of 5m where necessary. It has been discussed in meetings that excavation beyond 5m depth will not yield significant volumes of waste and are also not practical. Perhaps more relevant is that this is also discussed in section 4.2.2.5. within the options appraisal where some justification is provided via sustainability considerations. Whilst discussion is not limited to these sections section 7.2 and 8.5 also provide discussion on depth of treatment and reasons for the variance. We have also agreed however to recover leachate from deeper sumps in these areas to reduce contaminant load. This is detailed in sections 9.26 and 11.1.

These elements are in essence the "dynamic strategy" that was first discussed in our meeting of 18th April 2023 and later suggested as a way to progress in the letter from the EA dated 26th May (ref SO/2020/120757/06-L01). This principle has been agreed and discussed within this project for a significant amount of time. All this detail is most clearly summarised within the drawing D4744_20 and the deeper excavation protocol which can be found at Appendix F of the submitted Strategy.

We hope that this clarifies remaining matters and that the condition release can now be progressed.

Yours sincerely

For and on behalf of VertaseFLI Limited

Steve Edgar

Managing Director