

fluid planning

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1.0 Introduction

- 1.1 This statement addresses WSCC e-mail on 19 March 2020 at 17.31 titled 'WSCC/004/20 - Evergreen Farm - Further Info required - JN to Agent 19 03 20' ('the WSCC email'). This Response replies to the issues raised in that email in turn.
- 1.2 The proposed development is to remediate a landfill site at Evergreen Farm, East Grinstead, West Sussex. The landfill is the former Standen Landfill. Remediation will involve providing a capping layer over the waste to prevent contact with contaminants and reduce infiltration of rainfall through the waste material.

2.0 Detailed response to issues raised

Principle of the development

- 2.1 The below sets out the mitigation of any risks achieved by the proposal. The below also outlines the viability of potential alternatives to manage risk, and risks associated with the 'do nothing' scenario.
- 2.2 Comments by the Mid Sussex District Council's Contaminated Land Officer raised concerns. The WSCC email notes the comments of the Mid Sussex District Council's Contaminated Land Officer, Oliver Benson, sent on 13 February 2020. It seems that the response from Mr Benson is based on a previous version of the Ground Investigation Report (2018) and it appears the Geotechnical Design Report for Landfill Cap Evergreen Farm (February 2019) was uploaded to the website shortly after his response. It would be of assistance if Mr Benson were able to review his comments in light of the more recent version.
- 2.3 However, notwithstanding that Mr Benson does say that "based on the information subtitled to date the overall design does appear satisfactory for remediating the site". Mr Benson also says: "[u]ltimately the site contains contaminates and we would want to encourage and support the voluntary remediation that is proposed".
- 2.4 The Environment Agency (EA) response also seems to have been formed before the Ground Investigation Report was updated. However, the EA also state: "[t]he reports submitted in support of this planning application provides us with confidence that it will be possible to suitably manage the risk posed to controlled waters by this

development”. Condition 1 has already been completed through the three reports submitted.

- 2.5 In terms of WSCC officer comments and the consultation comments, Geo Environmental have reviewed both and are happy to provide a supporting statement if needed. However, I do not think it is necessary as all the information provided so far already demonstrates that there are clear benefits to the proposal (as outlined in further detail below), the work is necessary and that the minimum amount of material will be used to meet the remediation and landscape objectives for the site. It might be, that WSCC require further specialist advice to determine if whether the position outlined by GeoEnvironmental on behalf of the applicant is reasonable. However, Mr Benson and the EA should be suitably qualified and it seems an unnecessary expense for both the applicant and council.

Benefits of the proposal and the ‘do nothing’ scenario

- 2.6 With regard to WLP W8 criteria (d) and (e), and with reference to the comments of the WSCC Tree Officer, it is suggested that 1.5m of soil material over a cap is sufficient to ensure the establishment of trees on a landfill cap. It is noted in WSCC’s email that at present a minimum of 2m for tree planting areas is proposed and, in some areas, up to 3.5m of material depth is proposed to help tie the landscape into existing contours and achieve a visually acceptable end landscape that does not pool surface water. It should be accepted that the 3.5m depth is only a small part of the scheme and mostly, the depths of soil is the bare minimum required everywhere else.

- 2.7 With reference to W8 a) “the proposal results in clear benefits for the site and, where possible, the wider area” the following is noted:

- The site contains contaminants which are mobile, leaching, and impacting controlled waters (surface water stream) (Table 4.1 and 4.4 of the Geo Environmental report).
- Capping will prevent leaching of the contaminants confined within the waste body by reducing infiltration through the waste materials and what does infiltrate will be controlled/treated via a leachate collection blanket/swale and wetland system.
- This will be an ecological feature alongside the other ecological/landscape enhancements proposed. In addition, this supports the aim of supporting biodiversity in the proposal.
- This system also helps with slope stability as it prevents any waterlogging on the slopes which is the main risk to slope stability.
- The capping would also eliminate the existing physical risks to any future use of the site

posed by materials close to the surface (for example brick, tarmacadam, metal, and glass). The site has been used for sheep grazing which stopped due to loss of sheep through illness or maiming from the landfill. More recently the site has accommodated horses and due to injuries sustained on the former landfill, were confined to a path between the stables and woodland which was inadequate and led to that use ceasing.

- Landfill gas was identified as high risk for site users with risks of asphyxiation /fire/explosion (Table 5 Desktop Study, May 2018). The nature of the capping system on the site currently is considered to be inadequate for an end use (para 4.10 Geo Environmental report). It is therefore clear that the existing site is inappropriate for any use which involves people or animals due the risks above. (Table 8 of Desktop Study and page 24 of Geo Environmental report).
- Further, there are also clear indications that the landfill site is damaging the environment. Methane and Carbon dioxide from the landfill materials are likely to be impacting trees adjacent to the landfill site and potentially the ancient woodland - (see 4.2.2 and 4.10 of Geo Environmental report). The capping of the site is therefore an opportunity to protect existing woodland/ancient by installing gas vents to create pathways located away from key receptors such as vegetation/woodland. This is set out in the Geotech Design report.

2.8 Given the concentrations of contaminants within the leachate encountered there is potential for leachate into groundwater and the underlying aquifer (Geo Environmental para 4.7). The capping would address this and therefore provide another significant benefit. This benefit is not certain but the expense of installing deep groundwater monitoring installations is not necessary when the risk and benefits of the capping are already established as above. Ensuring there is no impact to groundwater is just another likely significant benefit.

2.9 Based on a do-nothing scenario the existing and future risks are:

- Death of farm animals, horses and wild animals from falls, illness or asphyxiation
- Dying trees and risk to death of ancient woodland
- Risk to human health - Asphyxiation / fire / explosion
- Contamination of controlled waters (surface water and likely groundwater) and the likely impacts to the environment.

2.10 Even if there is no formal use of the site the risks are unacceptable. Therefore, the do-nothing scenario is not considered a suitable option. The capping of the former landfill site is necessary.

2.11 The contaminants leaching from the site, gases present and materials just below and

exposed at the surface cannot be addressed in any other way than to cap the site and form a protective layer. Attempting to mitigate the impact of the contaminants on an ongoing basis rather than prevent the impacts entirely is an unacceptable option for preventing harm to the environment and also economically unviable considering the costs involved and lack of any end use. It is unclear how that option would ever be desirable let alone viable.

WLP Policies W8 and W13

2.12 In terms WLP Policies W8 and W13. Policy W8 of the WLP supports recovery operations involving the deposition of inert waste to land where it meets the relevant criteria. The proposal meets the criteria of WLP:

- The proposal results in clear benefits for the site and for the wider area as outlined above.
- In terms of the material to be used, as per WLP W8, the material is only residual waste following recycling and/or recovery or it is a waste that cannot be recycled or treated and the amount of waste material to be used is no more than is necessary to deliver the benefits identified.
- There will be no unacceptable impact on natural resources and other environmental constraints and these matters can be further controlled by condition and the EA waste permit.
- The proposal accords with Policy W13 (Protected Landscapes) and a detailed landscaping scheme has been proposed
- Any important mineral reserves would not be sterilised.
- Restoration of the site to a high quality standard would take place in accordance with Policy W20.

2.13 The proposal does represent the minimum amount of material is required to achieve the proposed restoration scheme and landscape strategy. Further, the proposed subsoil and topsoil capping layers will consist of suitable material for the establishment of planting and reference to correct British Standards ensured on all plans. The suggestion of 1.5m, by Mid Sussex's tree officer, is with respect a specification without basis.

Proposed Landscaping and Impact on Trees

2.14 This point refers back to the comments of the WSCC Arboriculturist and comments of the High Weald AONB unit, in particular with regard to the use of native, locally sourced species (including similar to that in the neighbouring ancient woodland) and the use of High Weald provenance seed.

- 2.15 In the WSCC email further clarification is requested for the proposals in respect of the trees along the Western Boundary, and the extent to which trees/vegetation outside the sites boundary (i.e. those at the Beechcroft Centre) provide screening of the site. Further details are requested if their health/integrity would likely be affected by the proposals. The proposals maximise biodiversity benefits and these have been incorporated into the proposed restoration. The proposed woodland planting is shown on the landscaping plan and within the updated LVIA accompanying this submission.
- 2.16 The Arboricultural Report (May 2019) has detail the applican't position on trees and the Appendix A and B tree plans show the situation. The situation is clear in the Appendix B plan. In terms of additional points:
- Tree T49 is outside the site so it is not possible to remove. The landform will be graded down to the edge of the site where the tree RPA is located. The depth of soil here will be minimal and is likely to only encroach into 20% of the RPA. This can be seen on the submitted Cross Section B-B (plan no.0043.7).
 - The Landscape Plan WD806 (24.10.2019) confirms that there shall be no excavation with RPA's.
 - The arboriculture consultant has confirmed that there is minimal risk to the tree stating at para 1.8 of the report, "that the proposal can be successfully implemented while protecting the retained trees to a level which complies with current arboricultural standards".
 - Paragraph 12.3 of the arboricultural report outlines that although the soil cap will extend to the edge of the woodland boundary "it will not encroach into the ancient woodland, nor will it result in the loss of any veteran trees within it". That section of the report emphasises that in considering this aspect of the works the following should be noted: (i) the northern section of the ancient woodland designation falls short of the actual on-site woodland edge – Appendix B. (ii) The southern stretch of the woodland boundary has either been previously cleared, or currently is supporting semi-mature growth of willow and alder within W38 – Appendix B.
 - The proposal is restricted to the body of the adjacent site and as such will not result in the loss, or fragmentation, of any ecological connections within the remaining woodland, or with veteran trees in the wider landscape (para 12.4.1 of that report).
 - In any event, the capping works will occur outside of the root protection areas of trees within the designated ancient woodland (para 12.4.2 of that report).
 - Importantly, and again in terms of biodiversity, paragraph 12.4.3 of the report notes that: "the semi-natural habitats adjacent to the woodland will be significantly improved following completion of the works, firstly because of the capping and containment of material

within the site, and secondly as a result of the post-works landscaping proposals”.

- In terms of any change to the landscape it is important to note that currently the existing area adjacent to the woodland is largely maintained as improved grassland. Following the implementation of the works much of this area will be planted with native species woodland. This will have the potential to significantly enhance the area following the implementation of the proposal and complement the existing wooded landscape context of the area (para 12.4.8 of the report).
- Appendix B shows the removal of trees. A phasing plan is something that can be conditioned along with other matters that aren't those relating to the principle of the scheme, but to construction and phasing details best left to planning condition.
- In relation to amendments to the landscaping scheme our landscape consultant's LVIA Rev B is considered to address this point sufficiently.

Drainage

2.17 Further information has been requested under this heading. In particular the WSCC email requests that the comments of the WSCC Flood Risk Engineer be addressed. It is confirmed the drainage consultants have modelled flood risk on the slightly altered design.

2.18 The WSCC email adds that with reference to the comments of the Environment Agency, an Environmental Management Plan condition is recommended to control among a number of other matters, that being leachate and surface water drainage. By way of brief summary at this stage:

- As outlined above, capping will prevent leaching of the contaminants by reducing infiltration through the waste materials.
- What infiltrate remains will be controlled/treated via a leachate collection blanket/swale and wetland system shown on the accompanying plans. Leachate will be collected and directed to an outfall downstream of the landfill where it will require treatment via a swale and wetland system. The landscaping proposal includes a suitable planting scheme for this purpose.
- Importantly, the current position is appropriate given the concentrations of contaminants within the leachate and the potential for leachate into groundwater and the underlying aquifer (Geo Environmental para 4.7). The capping would therefore address this and so is actively benefitting the site and wider area.

Slope Stability

2.19 In terms of slope stability that detail is set out in the Geotechnical Report.

- 2.20 The proposed level plans and cross sections were sent to Geotech. The slope stability analysis by Geotech is based on the contours proposed by taking the steepest slopes to analyse and the composition of materials and below ground infrastructure. Therefore the slope stability analysis is representative of what is proposed and demonstrates the stability of the proposal.
- 2.21 As outlined in that report, the slope stability analysis has considered two failure scenarios – a shallow translational slide failure and a deep seated global slope failure (para 3.1 of that report). The summary of those results is at paragraph 3.3 of the report.
- 2.23 The report states that translational stability analyses show that failure in the waste material is not critical and that any failure would take place in the placed materials. The report then goes on to outline the restrictions needed in order to maintain stability on the existing slopes and avoid regrading the slopes beyond the angle of shearing resistance of the placed materials (page 20 of that report). The earthworks specification section of the report (at para 5.2) gives more detail on how this will be achieved.
- 2.24 More generally, as outlined above capping will prevent leaching of the contaminants confined within the waste body by reducing infiltration through the waste materials and what does infiltrate will be controlled/treated via a leachate collection blanket/swale and wetland system – this does act as an ecological feature, alongside other ecological/landscape enhancements proposed. However, this system also helps with slope stability as it prevents any waterlogging on the slopes which is the main risk to slope stability.
- 2.25 With regards to planting trees and slope stability, waterlogging is generally the biggest risk to stabilisation of trees and this is avoided through a sufficient gradient to encourage lateral water movement to the swale. To achieve optimum drainage and soil stabilisation a post settlement gradient of at least 3% and no greater than 30% is required. Over 30% would inhibit soil stabilisation. The proposed woodland planting as shown on the landscaping plan is positioned on the eastern area of the site where the steepest part is a 1 in 7 slope or 14% which ensures avoidance of waterlogging and is also shallow enough for tree stabilisation generally. This position is shown on plans submitted.
- 2.26 Further, studies have been undertaken into the success of tree planting on

slopes such as on regraded colliery spoil heaps as far back as the 1970's which show that trees can be established successfully on far more degraded sites than here. One such publication can be found on the forestry research website here: <https://www.forestresearch.gov.uk/research/archive-establishment-of-trees-on-regraded-colliery-spoil-heaps/> Page 6 of that report says: "It has also been generally recognised that on regraded spoil heaps trees have other important functions. They provide invaluable habitats for wildlife, and largely due to annual leaf fall leading to a build-up of litter, they improve prospects of soil formation. On the steeper slopes of the heaps their roots help to stabilise the surface spoil". This section emphasises that the roots help with the stability of surface soil and maximising biodiversity value as referred to in the WSCC email (supporting Policy W14).

- 2.27 It is considered that there are no risks associated with the tree planting but with aesthetic, ecological and recreational benefits. It has also now been confirmed that any landfill gas will be controlled which will ensure stable root systems which stabilise the slopes rather than pose a risk. Through the revised landscaping plan it may be that a shaw is proposed to the west for screening if needed but that will be at the bottom of the slope as can be seen on cross section B-B (plan fp0043.7). The proposal is of a suitable design to ensure slope stability and the ability to accommodate all proposed below ground infrastructure and planting proposals. It is not considered that further information is warranted. Again, it is for WSCC to instruct professional review of their own if the inform submitted is not understood.

Heritage

- 2.28 In terms of the potential impact of the development on Standen House, although it is my view that the impacts on Standen House would be minimal and temporary we commissioned a transport statement to ensure there is an alternative access that is appropriate in terms of highways impacts. This is submitted to WSCC with this statement. Instead of an in and out vehicle route, the north west entrance can operate as an in and out, therefore avoiding Standen House altogether.
- 2.29 The consultation response of the Sussex Garden Trust, states that: "when completed, the proposals should protect the garden from possible harm. The Trust does not object to the application". That response continues that the Planning Authority should ensure that conditions to any approval ensure the impact on Standen House and its visitors is minimised in terms of traffic disruption. It is

therefore possible to balance the benefits of the proposal while minimising any potential impact on Standen House.

- 2.30 In our view this is the most comprehensive and quickest way to resolve highways issues and any perceived impact on Standen House is through the transport statement referred to above and which proves the access and vehicle routing is safe.

Noise

- 2.31 The Acoustic Assessment (at para 3.2.1) outlines in terms of the construction programme that in order to minimise the impacts of works on the nearest noise sensitive receptors, initial works on site will comprise the build-up of ground levels to around final height along the boundary of the site to be capped with the noise sensitive receptors, to provide a natural barrier to the passage of noise from the capping works. Continuation of the capping works will then begin closest to the formed natural barrier working backwards away from the receptors. These steps will minimise the impact of works.
- 2.32 The mitigation measures have also been outlined at section of the Acoustic Assessment (pages 18-19) to further reduce any noise and that communication will be kept with Beechcroft Care Centre and the Trefoil Montessori Farm School to ensure that disruption to these facilities is minimised.
- 2.33 In terms of the comments of the MDSC Environmental Protection Officer, The working hours suggested are reasonable and are accepted – limiting operations on site to between 08:00 hours and 18:00 Monday to Friday and between 09:00 and 13:00 Hours on Saturdays.
- 2.34 The mitigation measures within the acoustic report and dust management plan will be integrated into a conditioned Construction Environmental Management Plan ('CEMP') (with particular attention to minimising any disruption to adjacent uses). The CEMP can be required as a pre commencement condition on the basis this matter does not go to the heart of the permission and against the need to remediate the site, can be managed by condition to not harm neighbours.

Highways/PROW

- 2.35 Consideration has been given to possible HGV routes to/from the site to the Lorry Route Network. This issue has been discussed with Jamie Brown and a Transport Assessment has been undertaken to provide WSCC Highways with sufficient information. Further to illustrate consideration of these issues at this stage, attached to this response are:
- An access plan.
 - A plan showing Imberhorne Lane Tracking.
 - A plan showing Imberhorne Lane Visibility.
 - A plan showing proposed site access and egress routes.
- 2.36 There is no objection to entering into a S59 agreement to secure repairs to the highway where necessary. Further, there will be appropriate signage and management measures will be provided. The effect of the above is that any potential impacts on Standen House and gardens is minimised. The proposed development therefore does not give rise to any unacceptable impacts upon highway capacity or road safety.

Phasing/bunds/stockpiles/compound

- 2.37 It is correct that supporting assessments suggest seasonal and/or limited periods of working along the western boundary to avoid dust and noise impacts. The importance of prioritising a 3m soil embankment along the edge nearest the receptors is also agreed (as set out in the noise and dust assessments).
- 2.38 The site will be progressively worked and as noted stockpiled material will be kept in bunds 3 metres tall along the boundary of the 8-week zone ready for placement. Plans can also be provided to illustrate how this will be carried out via planning condition since they will be temporary in nature and WSCC must accept that the applicant can only reasonably outline a full working plan once the EA permit is in place and a contractor instructed. To require this information before is unrealistic. It is clear that the site can accommodate mitigation measures during construction to avoid impacts on amenity. This can be attached as a pre commencement condition.

3. Summary and conclusion

- 3.1 The capping of the existing site is necessary to mitigate existing environmental effects relating to leachate and gassing issues from the polluted landfill site.
- 3.2 As outlined above, the contaminants leaching from the site, gases present and materials just below and exposed at the surface cannot be addressed in any other way than to cap the site and form a protective layer. Attempting to mitigate the impact of the contaminants on an ongoing basis rather than prevent the impacts entirely is an unacceptable option for preventing harm to the environment and also economically unviable considering the costs involved and lack of any end use. It is unclear how that option would ever be desirable let alone viable.
- 3.3 The proposal is in compliance with both local and national policies as explained above and should be recommended for approval. It is my view that in principle the proposal is supported by policy and I would welcome your confirmation of that. The application should therefore be determined on the basis of the information submitted.

