Plan for Spoil Management at Danhill Rewilding Pond and Wetland

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Introduction

The proposed scheme aims to dig two new large ponds within the lower, eastern end of the site. These aim to increase the wetland habitat for the area with an overall aim to add to the biodiversity/rewilding process. Grid Reference: TQ 10415 19262

The ponds will cover an area of approximately 2.6ha and will vary in depth between 0.1m to 1.9m. These areas are in the lowest part of the site, beneath the Lower Greensand escarpment, and will be situated approximately 40m apart from one another.

Soil Excavation and Deposition Description



Proposed Spoil Area

Fig 1: Area of Danhill Rewilding Site showing compartment to be used for spoil management following excavation of pond and wetland areas within redline area (Source HMMP, Co-Ecology for Nyetimber, 07/07/2025)

As the site being a rewilding site, no soil moved during this excavation will be moved from site and instead all excavated soil will be moved to an adjacent compartment of the rewilding site and spread evenly across this area (Figs 4-7 Appendices). This area has been surveyed and described a g4 modified grassland and considered of low ecological value due to the modified nature and low diversity of species and structure (Co-Ecology, 2025). This will ensure that no material moves outside of Danhill boundaries and also that soil movement is kept to a minimum. Any flora or fauna within the soil will be moved to an area to which it is already well adapted and the ecological connectivity of any soil biology will be best and well maintained.

The nature of the vegetation within the moved soil and of that that already exists beneath where the spoil will spread in the deposition field, is such that it will easily restore itself and grow towards the light. The nature of the scrub plants in this area is that they will naturally recover following deposition. Additionally seeds in the soil seedbank will rapidly germinate ensuring that the area soon returns to the original g4 modified grassland condition, as seen elsewhere within the rewilding project. This approach is consistent with the process of rewilding where natural vegetation is allowed to germinate and develop before being ‘knocked back’ by animal browsing and grazing.

Access to Soil Deposition Area

The area is accessed by an existing 'gateway' (FIG 2) and spoil will be deposited in a logical and sequential manner from the north-eastern most part of the compartment first. This will result in spoil being deposited on the surface, ensuring that no unsightly or dangerous ruts or holes are left across the area. This area will be fenced (excluded) for the growing season post development in order to allow this process to happen, ensuring that vegetation develops as early as is possible, blending into the natural landscape.



Fig 2: image of existing gateway to area designated for spoil deposition.



Proposed Spoil Area

Gatewway location to Proposed Spoil Area

Fig 3: Map location of existing gateway to area designated for spoil deposition.

Soil Removal Distances

Soil will be moved a maximum of 367m from source (Figs 3). Soil will be deposited from the furthest, North-westerly corner of the field first, thereby ensuring that any ruts or damage from vehicle movements will be covered by spoil deposition once work is complete. If small highs and lows emerge, the site will be regraded with local undulations flattened before further soil import.

Regular surveys will be undertaken to ensure compliance. Where monitoring indicates that the 450mm limit may be approached or exceeded, there will be immediate suspension of soil importation. Soil on site will be redistributed to achieve approved levels before further soil import commences.



Fig 4: Area of Danhill Rewilding Site showing maximum distances for spoil removal to spoil deposition sites (Source: Googlemaps, 2025 [Online])

Boundary Vegetation

Hedgerows between this area and adjacent roads are already naturally dense (Figs 8,9 Appendices) and this method of vegetation regeneration will ensure that the area is restored rapidly with native vegetation within the growing season. Density of hedgerow will ensure that view of this area is minimal to non-existent (Fig 8, 9 Appendices, photos taken 02/09/2025). Soil will be deposited with a 5m boundary away from existing hedgerows in order to prevent any negative impact from either soil deposition or water run off onto these important boundary features. This is to ensure that surface water run-off is directed away from boundary vegetation. Finished levels will be graded to avoid ponding at edges.

Calculations

We have been advised by our excavation contractors, that the spoil removed will be 14,000 m3. The area where the excavated soil is to be spread is the 'field' to the immediate east of the pond/wetland area. This has a surface area of 28,321m2. This will generate a soil surface rise in this area of 49.4cm.

Spoil Removed - 14,000 m3
Surface area of field for spoil deposits – 28,321 m2
Spoil removed divided by surface area of spoil deposition - 14,000/28,321=0.49.4

Height gain from spoil deposition calculated to be 49.4cm taking range of AOD to 28.49-30.49m at the initial and maximum deposition point. Spoil will settle with this value reducing going forward.

Site Levels

Survey pegs and spot levels will be installed across the field to provide operators with visual reference points.

Ordnance above Datum searches show AOD to be 28-30m across site.

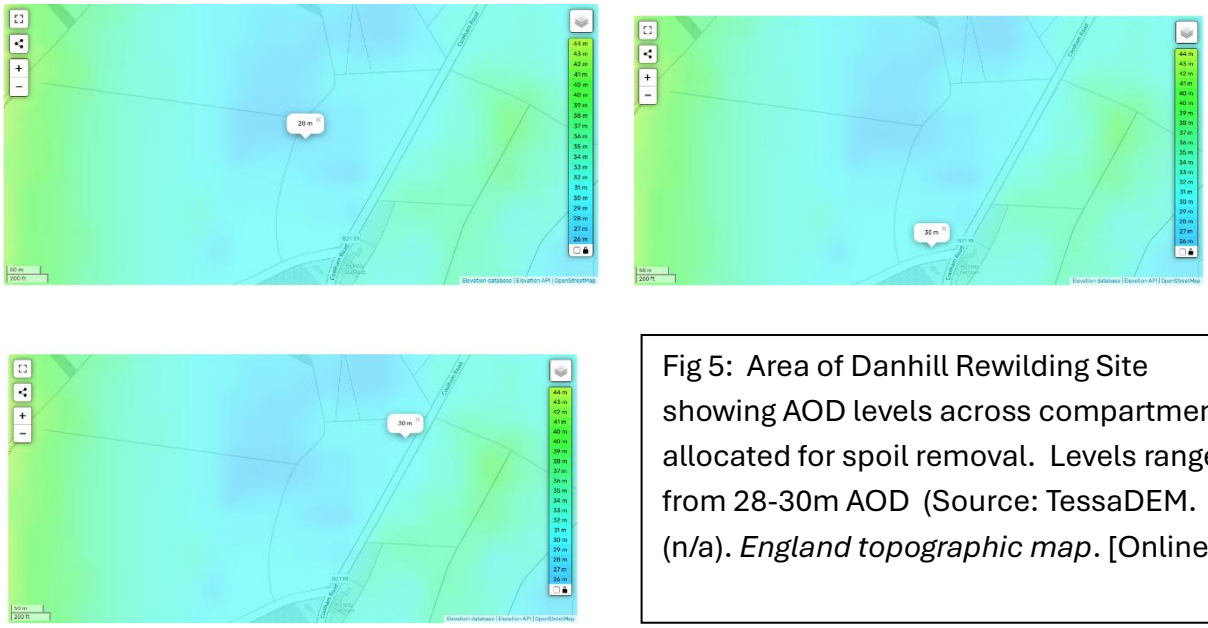

Fig 5: Area of Danhill Rewilding Site showing AOD levels across compartment allocated for spoil removal. Levels range from 28-30m AOD (Source: TessaDEM. (n/a). *England topographic map*. [Online].

Level Contingencies

Should anticipated levels of 49cm height gain, not be attained, levels will be reduced correspondingly to ensure that soil is deposited in an even manner across the site in order to prevent the creation of any issues from water run off across the field area. Should soil volumes be exceeded, soil will be removed out of the excavation field zones into the fields to the north west within the Danhill site.

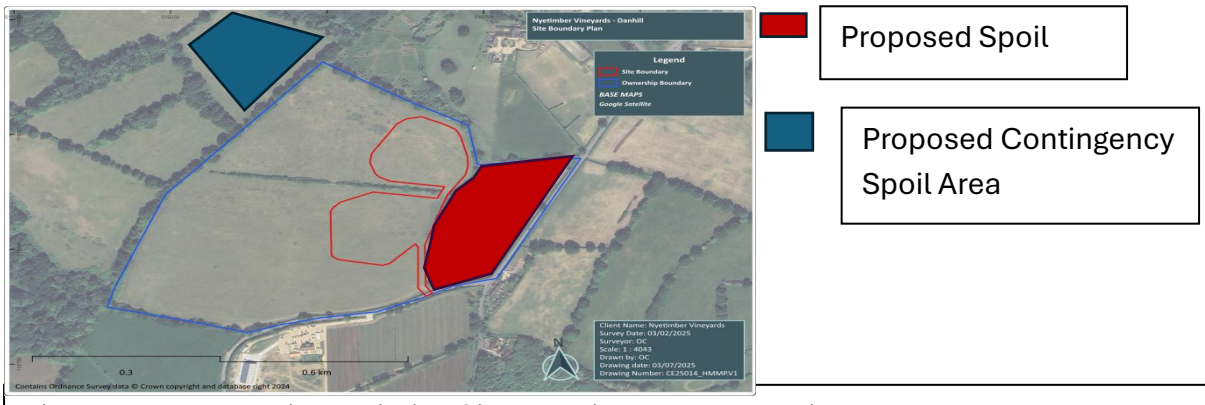

Fig 6: Area of Danhill Rewilding Site showing reserve contingency area should excavated soil quantity exceed predicted levels

Conclusion

The placing of removed spoil from the pond excavation area in the designated field compartment will raise AOD elevations by 49cm. It is anticipated that this spoil will settle over time, reducing this elevation value. Soil removed is travelling a short distance of up to 367m with this taking place at the time of removal. This ensures that seed and biology within it are well adapted to the ecosystem they will be deposited in and sustain the minimum interference from the removal process. This method best ensures rapid recolonisation and vegetational growth within the deposition area, creating a minimal visual impact.

References

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Appendices



Fig 7: Image of Proposed Soil Deposition Compartment looking North



Fig 8: Image of Proposed Soil Deposition Compartment looking South



Fig 9: Image of Proposed Soil Deposition Compartment looking East



Fig 10: Image of Proposed Soil Deposition Compartment looking West



Fig 11: Hedgerow from West Chiltington Road looking North



Fig 12: Hedgerow from Coolham Road looking West