Cambridge Waste Water Treatment Plant Relocation Project
Anglian Water Services Limited

Appendix 6.3: Outline Soil Management Plan

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1 Introduction

1.1 Purpose of the Outline Soil Management Plan

1.1.1 Soil is a non-renewable natural resource and invaluable national asset. Mishandling of soils may have consequences for soil quality and eventual suitability for soil end-use by exacerbating erosion, run-off, compaction and contamination. A Soil Management Plan (SMP) is required to minimise damage to the soils during and after construction of the Proposed Development.

1.1.2 The Outline SMP provides a framework for the sustainable handling of soil resources and describes the minimum standards and measures, based upon current legislation and best practice, which will be adopted by the Applicant and its Principal Contractor(s) to use as a basis for the development of a detailed SMP as required by the Code of Construction Practice (CoCP) (Appendix 2.1 and 2.2, Application Document Reference 5.4.2.1 and 5.4.2.2). A detailed SMP will be used by the Principal Contractor(s) to manage and monitor soils disturbed during the construction phase of the Proposed Development.

1.1.3 The Outline SMP for the Proposed Development was informed by the baseline information on soil properties collected as part of the desktop study and the soil survey. The soil survey was undertaken to examine the soil resources and determine the distribution of Agricultural Land Classification (ALC) grades across the land required for the proposed WWTP (Appendix 6.1, App Doc Ref 5.4.6.1).

1.1.4 For areas not subject to a detailed soil survey, the desktop study was utilised to inform the baseline. In the six months prior to construction, these areas shall be subject to an ALC survey to inform the detailed SMP, including identifying the location of peat and peaty soils.

1.1.5 The soil management measures specified in Section 05 ~~5~~ are applied provided that a soil specialist is present on-site to monitor key soil management stages, or that a soil specialist has delivered appropriate training to the Contractor prior to the commencement of the construction. The controls and management measures presented in the Outline SMP apply to all soils within the Scheme Order Limits.

1.1.6 This Outline SMP should be read alongside the following documents:

- Agricultural Land Classification Report (Appendix 6.1, App Doc Ref 5.4.6.1); and
- Code of Construction Practice (CoCP) Part A (Appendix 2.1, App Doc Ref 5.4.2.1).

1.1.7 This document does not cover control of dust such as from soil stockpiles. Refer to the CoCP Part A Section 7.8, Air Quality and the measures here relating to dust control.

1.1.8 This document does not cover biosecurity. Refer to the CoCP Part A Section 7.3, Ecology and Nature Conservation, and the measures here relating to biosecurity.

1.1.9 The CoCP Part A also requires the avoidance of land drains and the reinstatement of disturbed land drains as agreed with the landowner.

1.1.10 The complaints procedure defined in the CoCP will be set out within the final CEMP. Any complaints relating to soil and soil management would follow the process. A record would be made of the complaint or incident for audit purposes.

1.2 Document structure

1.2.1 Table 1-1~~Table 1-1~~ provides a summary of the document structure and content.

Table 1-1: Document structure

Section number	Heading	Content
1	Introduction	Provides background to the Proposed Development and the purpose of the Outline SMP.
2	Guidance	Provides an overview of the guidance relevant to the SMP.
3	Baseline	Summary of the baseline detailed in the ALC report (Appendix 6.1, App Doc Ref 5.4.6.1).
4	Roles and responsibilities	Provides an overview of the roles and responsibilities to ensure implementation of an SMP.
5	Soil Management Measures	Detailed soil management measures covering pre-construction planning, construction measures, reinstatement, aftercare and monitoring.
Appendices		
Appendix A.1	Site and Auger Borehole Location Map	
Appendix A.2	Soil Management Checklist	
Appendix A.3	Soil Type Map	
Appendix A.2	Stockpile Record Card	

2 Guidance

2.1 Introduction

2.1.1 This Section sets guidance relating to soil management measures pertinent to the Proposed Development. It should be checked and updated for detailed SMP prepared by the Contractor(s).

2.2 Guidance

Safeguarding our Soils: A Strategy for England:

2.2.1 The Safeguarding our Soils: A Strategy for England (Defra, 2009) emphasises the sustainable use of soil as a non-renewable natural resource that provides ecosystem services and is threatened by intensive agriculture, pollution and urban development.

Construction Code of Practice for the Sustainable Use of Soils on Construction Sites

2.2.2 This Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009) is a practical guide to assist those involved in the construction industry to protect the soil resources with which they work.

2.2.3 Below is a summary of the key messages of the code:

- conduct a soil resource survey (for the agricultural land required permanently and temporarily, this will be an ALC survey) prior to construction;
- stay informed on waste regulations;
- consider the use of sustainable drainage systems on site as these can provide more long-term protection of soils beyond the construction phase, by facilitating the infiltration and attenuation of surface water;
- prepare a Soil Resource Plan showing the areas and type of topsoil and subsoil to be stripped, haul routes, the methods to be used, and the location, type and management of each soil stockpile;
- when stripping, stockpiling or placing soil, do so in the driest condition possible and use tracked equipment where possible to reduce compaction;
- confine traffic movement to designated routes;
- keep soil storage periods as short as possible;
- clearly define stockpiles of different soil materials;
- ensure that the entire soil profile is in a condition to promote sufficient aeration, drainage and root growth; and

- safeguard and utilise on-site soil resources where possible. If importing soils, use a reputable supplier, establish the source of the soil and ensure it is suitable for the intended use.

British Standards

2.2.4 The following standards provide guidance on the handling of soils during construction:

- BS 3882 Specification for topsoil (British Standards Institution, 2015)
  - This British Standard specifies requirements for the classification, composition and use of topsoils that are moved or traded for creating soil profiles intended to support plant growth.
- BS 8601 Specification for subsoil and requirements for use (British Standards Institution, 2013)
  - This British Standard specifies requirements for the classification, composition and use of subsoils that are moved or traded for creating soil profiles intended to support plant growth.

The Definition of Waste: Development Industry Code of Practice

2.2.5 The Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011) outlines the process required to determine if site-won materials are to be considered as waste. Notably, where natural stripped soils are scheduled to be reinstated within the project area (use on site of origin), these are not considered a waste. If the site is a brownfield site, the quality of soils on site must be established and only if contamination has been discounted can those naturally occurring materials be considered for direct transfer and use.

Good Practice Guide for Handling Soils

2.2.6 The Good Practice Guide for Handling Soils (Institute of Quarrying, 2021) provides guidance on good soil handling by machines to protect soil from the adverse effects of handling, notably compaction. It represents an update to the MAFF guidance published in 2000.

3 Environmental context

3.1 Survey location

3.1.1 The Outline SMP was informed by the information on soil properties collected for the full extent of the Scheme Order Limits as part of the desktop study and supported by the findings of the soil survey undertaken in the area of the proposed WWTP only.

3.2 Baseline summary

3.2.1 A summary of the baseline information reported in the ALC (Appendix 6.1, App Doc Ref 5.4.6.1) and used to inform the soil management measures specified in Section 5 is contained in Table 3-1~~Table 3-1~~.

Table 3-1: Baseline information summary

Baseline topic	Summary information	Other sources within the Environmental Statement
Geology	There is no recorded superficial geology for the proposed WWTP (area surveyed), as per the Geology of Britain viewer. Varying superficial deposits are present along the Waterbeach zone, these include River Terrace Deposits, Alluvium and peat deposits. Underlying bedrock is recorded as West Melbury Marly Chalk Formation and the Gault Formation.	Chapter 6: Land Quality (App Doc Ref 5.2.14)
Soil associations	Soils within the Scheme Order Limits comprise: • Adventurers' 1: Deep peat soils. Flat land. Groundwater levels often controlled by ditches and pumps, some undrained areas. Risk of wind erosion. • Clayhythe: Deep humose fine loamy over sandy and fine loamy over clayey soils mainly calcareous. Some peat soils. Groundwater controlled by ditches and pumps. • Evesham 3: Slowly permeable calcareous clayey, and fine loamy over clayey soils. Some slowly permeable seasonally waterlogged non-calcareous clayey soils. • Midelney: Stoneless clayey soils mostly overlying peat. Soils variably affected by groundwater which is, in places, controlled by ditches and pumps. Flat land. Risk of flooding locally. • Milton: Deep permeable calcareous fine loamy soils variably affected by groundwater. Some similar shallower well drained soils over gravel in places. Complex soil patterns locally. • Peacock: Deep humose calcareous clayey and non-calcareous fine loamy over clayey soils. Some peat soils. Groundwater controlled by ditches and pumps. • Reach: Shallow humose fine loamy calcareous soils over chalk or chalk rubble with groundwater controlled by ditches and pumps.	Book of Figures – Agricultural Land and Soils (App Doc Ref 5.3.6)

Baseline topic	Summary information	Other sources within the Environmental Statement
	• Restored Coprolite: Restored coprolite workings. Generally slowly permeable seasonally waterlogged calcareous fine loamy over clayey soils. Associated with disturbed calcareous fine loamy and occasional coarse loamy soils. • Swaffham Prior: Well-drained calcareous coarse and fine loamy soils over chalk drift or rubble. Some similar shallow soils. Deep non-calcareous loamy soils in places. Striped and polygonal soil patterns locally. • Wantage 2: Shallow well-drained calcareous silty soils over argillaceous chalk. Sometimes affected by groundwater. Deeper well-drained coarse loamy soils in places. Complex soil patterns locally.	
Flood risk	The area of land required for the construction of the proposed WWTP (including treated effluent pipeline and outfall) and Landscape Masterplan is located in Flood Zone 1, with (less than 1 in 1,000 annual probability of river flooding). The area of land required for construction of part of the treated effluent pipeline, the outfall and the outfall compound is located is and within Flood Zone 2 (1 in 100 and 1 in 1,000 annual probability of river flooding). The area of land temporarily required for the construction of the northern extent of the Waterbeach pipeline (up to 1.6km) is within Flood Zone 2.	Chapter 20: Water Resources (App Doc Ref 5.2.20) Flood Risk Assessment (Appendix 20.1, App Doc Ref 5.4.20.1) Fluvial model report (Appendix 20.5, App Doc Ref 5.4.20.5)
Climate	Field capacity days are 96, which are low (less than 225) and indicate that the land may not be prone to waterlogging. Average rainfall is lower than the UK average recorded by the Met Office. The accumulated temperature above 0°C (January to June) (AT0) is higher than 1125 day-degrees and can therefore be considered warm enough for sustained cereal production.	Chapter 10: Climate Resilience (App Doc Ref 5.2.9)
Topography	The land is generally flat with the highest point located within the area of land required for the proposed WWTP. Topography is indicated within Figure 15.4.	Figure 15.4 (Book of Figures – Landscape and

Baseline topic	Summary information	Other sources within the Environmental Statement
		Visual Amenity (App Doc Ref 5.3.15))
Land use	In land required for the proposed WWTP, winter wheat was identified in the fields in the west and oilseed rape and beans in the east. The land required for the transfer tunnel and shafts is predominantly arable. The area of land required for the outfall is also used for conservation purposes. The land required for the Waterbeach pipelines is predominantly arable.	Agricultural Impact Assessment (Appendix 6.2, App Doc Ref 5.4.6.2)

4 Roles and responsibilities

4.1 Introduction

4.1.1 The effective implementation of the SMP requires that roles and responsibilities are clearly defined and understood. Overall roles and responsibilities for the Cambridge Waste Water Treatment Plant Relocation (CWWTPR) project will be specified in the final CEMP. Roles and responsibilities in relation to soil management and the implementation of the SMP will be specified in the final SMP.

4.1.2 The main roles and responsibilities specific to the outline SMP are set out in Table 4-1~~Table 4-1~~ along with the specification for the roles where applicable. These are indicative and the responsibilities will be allocated according to the organisational structure of the appointed Contractor(s) and Applicant in the construction stage. The main thing is that suitably qualified persons are appointed to oversee soil handling activities and that there are sufficient resources allocated to implement the CoCP and SMP.

Table 4-1: Indicative roles and responsibilities

Roles and specification	Responsibilities
Principal Contractor(s)	Producing the final SMP and ensuring compliance with the requirements of the final SMP and CoCP during all stages of the CWWTPR project. Preparation of Method Statements Responsible for record keeping and site checks during construction. Reinstatement of land drains Coordination with Land Agent/ Stakeholder Lead Soil aftercare and monitoring Organising and delivering initial training and communication to site staff focusing on the sustainable handling of soils at all stages, including key SMP information and why this is important
Soil Specialist	Supervising the relevant soil management activities such as soil handling, soil stripping, stockpiling and reinstatement where identified in the final SMP.
Land Agent / Stakeholder Lead	Communicating with landowners, their agents and/or tenants in relation to the timing and nature of works activities, the duration of activities and to agree the detailed works layouts within agricultural land, and arrangements for land drains.

Roles and specification	Responsibilities
Environmental Manager / Environmental Clerk of Work	Regular environmental inspections.
Site manager / foreman	Inspections during soil handling and reinstatement activities Record keeping Deferring to ECoW / Soil Specialist as needed Coordination with the Land Agent / Stakeholder Lead

5 Soil Management Measures

5.1 Introduction

5.1.1 The guidance within this SMP concerns soils up to a depth of 1.2m. It is given in line with industry best practice ('The Construction Code of Practice for the Sustainable Use of Soils on Construction Sites', BS 3882 Specification for topsoil, BS 8601 Specification for subsoil, Good Practice Guide for Soil Handling in Mineral Workings), and is designed to ensure that soil structure and overall quality does not unduly deteriorate during construction, thereby remaining suitable for eventual reinstatement or reuse.

5.2 Pre-construction planning

5.2.1 Table 5-1~~Table 5-1~~ outlines the planning operations required to be undertaken ahead of construction to ensure appropriate soil handling during construction of the Proposed Development and clarifies how the required operation have been undertaken as part of the CWWTPR project.

Table 5-1: Pre-construction planning operations

Operation	Details
Agricultural Land Classification survey	An ALC survey was undertaken within the proposed WWTP (Appendix A.1, drawing 409071-MMD-00-XX-GIS-Y-0813) by suitably qualified and experienced Soil Scientists between 22nd and 26th November 2021. The purpose was to identify and quantify specific soil properties to calculate the quality of the land for agriculture and inform decisions on development and construction. An ALC survey is planned on areas of temporary acquisition (namely the Waterbeach pipeline) in the six months prior to construction. This survey will identify soil types to inform soil handling methods, taking particular care to note locations of peat and peaty soils.
Baseline Survey	A desk-based study was undertaken for information ahead of the ALC survey and to support results from the survey. Informed by open-access data, the study established anticipated geology, and soil associations, climate, flood risk and predicted ALC grades.
Soil Management Plan	This document reports upon the soil properties identified in the ALC survey and provides both general principles and site-specific soil management guidance to be consulted throughout all construction phases and during the reinstatement of displaced soils. As the report precedes the finalisation of scheme design, such soil management information should be treated flexibly and updated once plans are finalised.

Operation	Details
Appropriate and regular liaison arrangements	Throughout the planning and execution stages of the ALC survey, regular contact has been made between the Soil Scientists and the Applicant. Upon construction, it will be crucial to ensure that regular contact continues. This is to guarantee the sharing of up-to-date site information, including earthwork, stockpiling and haul route design.
Operation Checklist	An operation checklist has been produced to guide all stages of soil handling and includes a "stop" mechanism to prevent proceedings if the criteria are not hit. Please refer to Appendix A.2 for a copy of the Operation Checklist, which includes key audit agendas regarding: (1) pre-development (2) soil resource planning (3) topsoil stripping (4) subsoil stripping (5) soil stockpiling (6) soil placement (7) sourcing and importing soil (8) topsoil manufacture (9) soil aftercare (10) uses for surplus soil. Activity should not proceed if one of the criteria of the checklist is not met.

5.2.2 Prior to the commencement of construction there should be a detailed review of the area required for construction activity including and assessment of all areas where there will be a requirement to excavate for the purpose of construction.

5.2.3 To secure effective delivery of the SMP, the Principal Contractor(s) must implement it through location-specific construction method statements. 'Locations' will be determined by the Principal Contractor(s) or their soils specialist depending upon factors such as, but not limited to, the works to be undertaken, the machinery to be used, soil types and results of any additional survey works, site constraints (for example, depth to the water table, or ecological constraints) and the construction programme.

5.2.4 Details of the construction programme in relation to the soil management, for example, the timings for soil stripping and reinstatement in terms of seasonal working will be provided in the final SMP.

5.2.5 The final SMP will contain additional details based on the Principal Contractor's construction design and methodology. Methodologies for soil handling during all relevant stages of the Proposed Development will be based on the information provided in this Outline SMP and will include the following:

- identification of appropriate plant to strip, reinstate and handle soils;
- methods for compaction and grading of stockpiles;
- methods for working in naturally wet soils; and
- specification of appropriate decompaction measures to be used during reinstatement.

5.2.6 The methodology will be agreed between the Principal Contractor(s) and the soil specialist prior to construction commencing.

5.2.7 The works must also be monitored to audit compliance with the SMP (and location-specific construction method statements) and to allow ongoing advice on soil handling to be provided.

Site planning and preparation

5.2.8 Site preparation will include the clear marking and signposting of access tracks and all areas that will remain undisturbed during construction activities. Areas of soil that are not to be stripped will be protected. This will either be by total exclusion with the use of fencing or other barriers or by the provision of ground protection, for example track matting, geomembrane etc. No trafficking of vehicles/plant or materials storage will occur outside demarcated working areas.

5.3 Construction Soil Management Measures

Soil handling constraints

5.3.1 The term 'handling' refers to all stages of the construction process including stripping, storage and reinstatement. Handling of site soils should always be conducted in accordance with the Construction Code of Practice for Sustainable Use of Soils on Construction Sites (Defra, 2009).

5.3.2 To ensure that soil quality is retained, soils should be handled in appropriate weather conditions, with suitable soil moisture and consistency. More specifically, handling (non-peaty) soils in a sufficiently dry and friable state ensures that compaction and smearing are reduced, both of which may result in the deterioration of overall soil quality. These considerations are particularly relevant to the Proposed Development as it predominantly comprises of medium-textured loams, which are susceptible to structural damage when handled at high moisture content or when plastic.

5.3.3 Peat or peaty soils should not be handled when dry and brittle.

Field test for suitably dry soils

5.3.4 Ahead of operations, a field test should be performed to determine the suitability of soil for handling as described in Supplementary Note 4 of the Good Practice Guide for Handling Soils (Institute of Quarrying, 2021). Soil tests are to be undertaken in the field. Samples shall be taken from at least five locations in the soil handling area and at each soil horizon to the full depth of the profile to be recovered/replaced. The tests shall include (i) visual examination of the soil and (ii) physical assessment of the soil consistency.

(i) Examination

- If the soil is wet, films of water are visible on the surface of soil particles or aggregates (e.g. clods or peds) and/or when a clod or ped is squeezed in the

hand it readily deforms into a cohesive 'ball' means no soil handling to take place.

- If the sample is moist (i.e. there is a slight dampness when squeezed in the hand) but it does not significantly change colour (darken) on further wetting, and clods break up/crumble readily when squeezed in the hand rather than forming into a ball means soil handling can take place.
- If the sample is dry, it looks dry and changes colour (darkens) if water is added, and it is brittle means soil handling can take place.

(ii) Consistency

First test

- Attempt to mould the soil sample into a ball by hand:
  - Impossible because soil is too dry and hard or too loose and dry means soil handling can take place.
  - Impossible because the soil is too loose and wet means no soil handling to take place.
  - Possible - Go to second test.

Second test

- Attempt to mould the ball into a 3mm diameter thread by hand:
  - Impossible because soil crumbles or collapses means soil handling can take place.
  - Possible means no soil handling can take place.

~~5.3.3~~ N.B.: It is not possible to roll most coarse loamy and sandy soils into a thread even when they are wet. For these soils, the Examination Test alone is to be used.

Appropriate weather and ground conditions

~~5.3.4~~5.3.5 Work must be suspended if sustained heavy rainfall (>10mm in 24 hours) occurs during soil stripping, stockpiling or placement operations. It cannot be restarted until the ground has had at least a full dry day.

~~5.3.5~~5.3.6 It is recommended that handling is not undertaken when: (1) rain – however heavy – has persisted for more than 15 minutes; (2) there is heavy rain (i.e., slow-moving depressions or intense showers); (3) there are other forms of heavy precipitation (e.g., hail, snow) for a spell. In these instances, following the end of precipitation, soil must be demonstrated to pass a field test for consistency before it may be handled again (Paragraph 5.3.4).

5.3.7 Soils should not be handled when soils are waterlogged, frozen or covered by snow, nor if pools of water are present.

5.3.8 Soils are most likely to be wet during October to March and are unlikely to be suitable for handling during this period. However, if weather conditions result in

dry soils, it can be advantageous to proceed with work that would allow soils to be reinstated faster, providing that the soil passes the field test.

~~5.3.6~~5.3.9 Peat or peaty soils should not be handled in the summer months when there is a risk of them drying out.

Soil stripping

~~5.3.7~~5.3.10 It is recommended that tracked/low ground pressure vehicles are used throughout stripping and haulage to reduce structural damage through compaction.

~~5.3.8~~5.3.11 Excavators and dump trucks are to be used to strip soil using the sequential 'bed'/strip by strip practice as displayed in **Figure 5-1**~~**Figure 5-1**~~. Normally the excavator operates only from the soil surface with the dump trucks travelling on the exposed lower non-soil layer.

~~5.3.9~~5.3.12 For peat soils or organic soils, which are prone to compaction, the excavator will need to operate from the exposed 'basal' layer or a raised access strip. The excavator should not operate on top of the peat or peaty soils. The surface layer of peat and vegetation (acrotelm) should be stripped separately from the catotelmic peat. The acrotelm should be kept vegetation side up.

~~5.3.10~~5.3.13 If peat is of a thickness of more than 60cm, a floating road should be considered.

~~5.3.11~~5.3.14 Separate soil horizons should be recovered to the full width of the strip without mixing with the underlying horizon (not more than 20% of the lower horizon should be exposed at the layer junction within the strip).

~~5.3.12~~5.3.15 The thickness of soil horizons is outlined in Table 5-2~~Table 5-2~~, with reference to the fields labelled in Appendix A.1 – Site and Auger Borehole Location Map and soil type depicted in Appendix A.3 – Soil Type Map.

~~5.3.13~~5.3.16 For more detailed guidance on soil stripping, the reader should refer to Sheet A of the Good Practice Guide for Handling Soils (Institute of Quarrying, 2021).

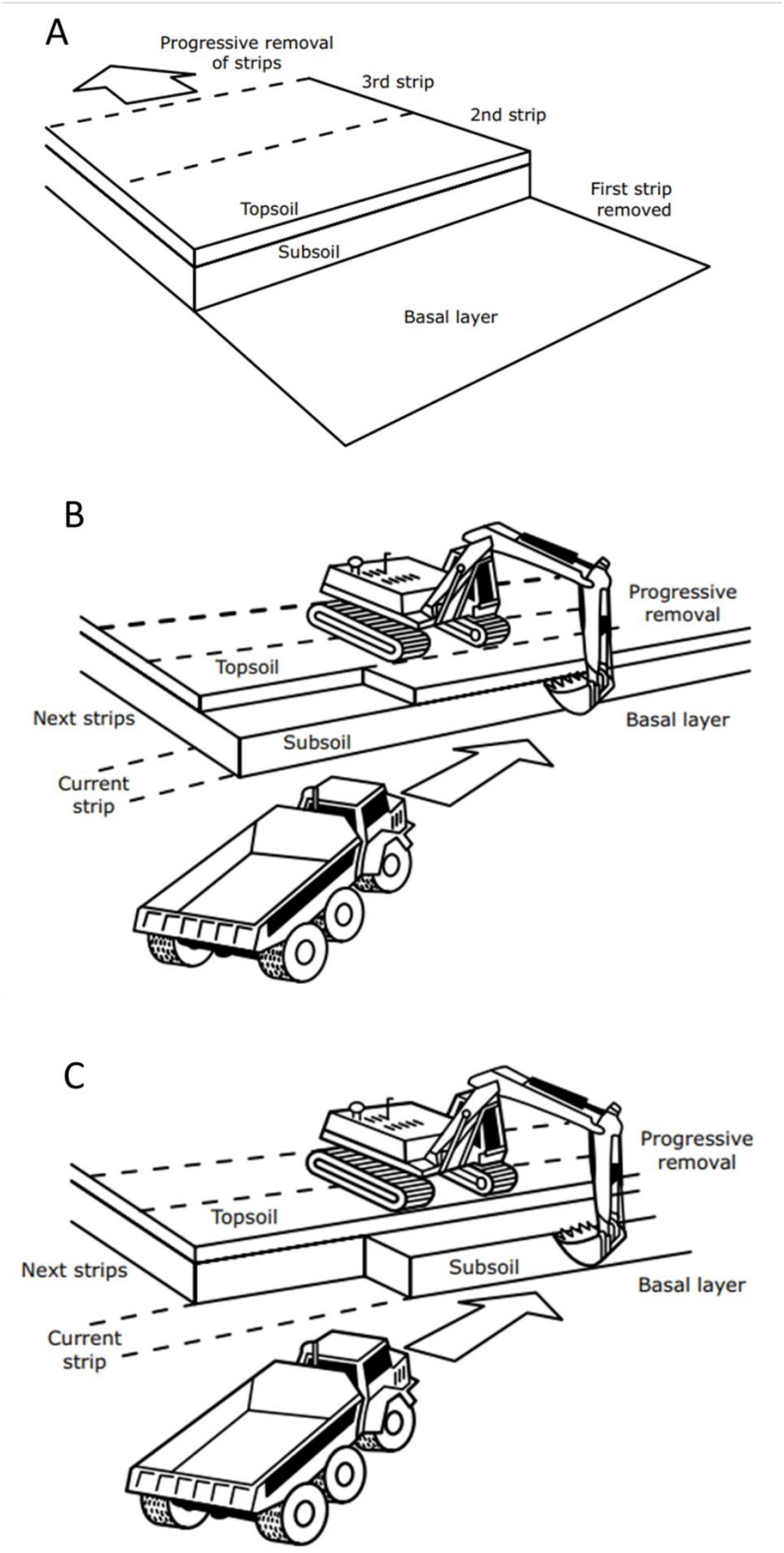

Figure 5-1. Soil stripping of resilient soil with excavators and dump trucks A) the bed system B) removal of topsoil from a strip C) removal of subsoil from a strip. Source *(Institute of Quarrying, 2021)*.

Table 5-2: Average soil thickness and approximate volumes per soil type within different fields (proposed WWTP)

Soil type	Depth, cm			Field	Area, m^2	Approximante volume, m^3		
	Topsoil	Upper subsoil	Lower subsoil			Topsoil	Upper Subsoil	Lower subsoil
1	28	21	24	R037-1	49,000	13,700	10,300	11,800
				R037-3	13,000	3,600	2,700	3,000
				R037-4	79,000	22,100	16,600	19,000
				Y039-1	14,000	4,000	2,900	3,400
				Y039-4	7,700	2,200	1,600	1,800
				Total	**162,700**	**45,600**	**34,200**	**39,000**
2	27	22	48	G036-10	18,000	4,900	4,000	8,600
				R037-1	68,500	18,500	15,000	32,900
				R037-2	105,000	28,400	23,100	50,500
				R037-3	72,500	19,600	16,000	34,800
				R037-4	63,000	17,000	13,900	30,200
				Y039-1	31,000	8,400	6,800	14,900
				Y039-2	45,000	12,200	9,900	21,600
				Y039-4	8,300	2,200	1,800	4,000
				Total	**411,300**	**111,000**	**90,500**	**197,400**
3	27	25	47	G036-2	6,500	1,800	1,600	3,000
				G036-10	6,200	1,700	1,500	2,900
				R037-1	2,000	500	500	940
				R037-2	120,000	32,400	30,000	56,400
				R037-3	73,000	19,700	18,300	34,300
				R037-4	35,000	9,500	8,800	16,500
				Y039-1	20,000	5,400	5,000	9,400

Soil type	Depth, cm			Field	Area, m^2	Approximante volume, m^3		
	Topsoil	Upper subsoil	Lower subsoil			Topsoil	Upper Subsoil	Lower subsoil
				Y039-2	49,200	13,300	12,300	23,100
				Total	**311,300**	**84,200**	**78,000**	**146,600**

Topsoil stripping

~~5.3.14~~5.3.17 Topsoil should be stripped from all areas that will be disturbed by earthworks, construction and storage. Areas designated as haul routes and access tracks must be stripped of topsoil to avoid compaction and should be designed to ensure that vehicles do not traverse surrounding soils (e.g., tracks may be designed to accommodate two passing vehicles, or a one-way system may be implemented).

~~5.3.15~~5.3.18 Topsoil should be stripped to its maximum depth (as set out in Table 5-2~~Table 5-2~~ and no deeper.

~~5.3.16~~5.3.19 The following should be adhered to at all times during the construction process:

- Land should remain vegetated for as long as possible before moving topsoil.
- Vegetation should be cleared prior to stripping to ensure that it is not incorporated within stockpiled soils. If herbicide is to be used, this should be undertaken at least two weeks prior to the commencement of stripping operations.
- Stripping should be undertaken during the driest possible conditions.
- Soils that are stripped with comparatively wetter profiles or horizons (in a plastic state) should be stockpiled separately to allow for subsequent reconditioning prior to reinstatement.
- Soil stripping should be stopped during or directly after heavy rain, or when water is pooled on the surface (please refer to Section 5.3 for soil handling constraints with regard to weather conditions).
- Where identified as being required, stripping should be conducted in the presence of an archaeological watching brief as part of the archaeological investigation mitigation strategy.
- Where possible, tracked equipment should be used to reduce compaction.
- Vehicles required for stripping and haulage should stay on the designated routes to avoid additional compaction.
- Wheeled vehicles should be kept off topsoil where possible.
- Dust generation should be kept to a minimum to avoid air pollution.
- Topsoil in the surveyed area (proposed WWTP) should not be stripped below the specified depths, as detailed in Table 5-2~~Table 5-2~~ as this would reduce topsoil fertility and overall quality;
- Topsoil with different textures (e.g. clay loam) and different soil types and made ground should be handled (stripped and stored) separately (refer to Figure 6.4 of the Book of Figures – Agricultural Land and Soils (App Doc Ref 5.3.6);

- Peat turves should be stripped and handled with care and kept vegetation side up such that damage to the living vegetation mat would be prevented or minimised as far as possible.
- The stripping operation should be supervised and monitored at all times; and
- Excavators and dump trucks may be used for stripping, which should be undertaken in line with the process from the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra, 2009). Bulldozers and earth-scrapers are no longer recommended.

Subsoil stripping

~~5.3.17~~5.3.20 If subsoils are to be stripped and replaced for reinstatement post construction, this must be done after the stripping of topsoils to their maximum depth. During subsoil stripping, the following list should be adhered to at all times:

- Stripping should be undertaken during the driest possible weather conditions to avoid excessive subsoil wetting.
- Upper and lower subsoil should be stripped separately.
- Soils stripped with comparatively wetter horizons (plastic) should be stockpiled separately where applicable to allow for subsequent reconditioning prior to reinstatement.
- Where possible, tracked equipment should be used to reduce compaction.
- Dust generation should be kept to a minimum to avoid air pollution when subsoils are dry.
- Soil stripping should be stopped during or directly after heavy rain, or when water is pooled on the surface (please refer to paragraph 5.3.5~~5.3.4~~ for soil handling constraints with regard to weather conditions);
- Subsoils in the surveyed area (proposed WWTP) should not be stripped below the specified depths, as detailed in Table 5-2~~Table 5-2~~; and
- Subsoil with different textures (e.g. clay loam) should be handled separately.

~~5.3.18~~5.3.21 Low fertility soils (see Agricultural Land Classification (Appendix 6.1, App Doc Ref 5.4.6.1) and multipurpose soils should be stockpiled separately; and

~~5.3.19~~5.3.22 Vehicles required for stripping and haulage should stay on the designated haul routes to avoid additional compaction.

Soil stockpiling

~~5.3.20~~5.3.23 To ensure suitability for reinstatement, it is imperative that soils are stockpiled in a sustainable manner to limit degradation from weather and construction activities and minimise occupation of surface area.

Stockpile storage location

~~5.3.21~~5.3.24 Stockpile construction should where possible take place on dry, flat ground, avoiding hollows. Where possible the stockpile should be away from tree crowns, ditches, watercourses, boreholes or other areas where they might disturb local surface drainage. Vegetation and waste must be cleared from the intended locations prior to stripping operations, although it may be preferable to retain vegetation surrounding nearby ditches and watercourses or to establish grass buffer strips following stockpiling, to minimise drainage disturbances.

~~5.3.22~~5.3.25 The stockpile locations should take into account other site constraints such as flood zones (see Flood Risk Assessment, Appendix 20.1, App Doc Ref 5.4.20.1), archaeologically sensitive features (see Chapter 13: Historic environment and habitat areas (Chapter 8: Biodiversity and Figure A.1 & A.2 NVC Baseline)).

~~5.3.23~~5.3.26 Stripped soils should be stored according to type (i.e. topsoil, subsoil), texture (i.e. clay loams, sandy loams) and as close to where they were stripped from where possible. This will help to avoid the mixing of different soil types or soils from different fields/farms and reduce the potential of avoidable structural damage resulting from unnecessary double-handling and excessive trafficking.

~~5.3.24~~5.3.27 If it is necessary to store soil significant distances from where it will be reinstated, it is paramount that guidance relating to soil transport is followed to minimise soil degradation associated with such situations. This particularly relates to ensuring that soils are dry and non-plastic before loading and transporting them.

Stockpile formation

~~5.3.25~~5.3.28 Topsoils, upper subsoils and lower subsoils should be segregated when forming stockpiles to ensure suitability for appropriate soil horizon reinstatement or reuse. Furthermore, soil textures should be segregated when forming stockpiles. Where it is necessary to store topsoil and subsoil stockpiles in close proximity whereby there is a risk of mixing, a distinctive geotextile, straw or similarly non-detrimental material should be used for segregation.

~~5.3.26~~5.3.29 The size and height of stockpiles should be based on soil moisture status and consistency (plasticity) as per the 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (Defra, 2009). Appropriate stockpile heights normally adhere to the following:

- 1 – 3m for topsoil in a dry state in order to minimise impact of storage on biological activity.
- Up to 5m for subsoil in a dry state, as it is considered biological activity is lower.
- Up to 1m for peat and for no longer than 6 months.
- If it is inevitable for wet soils to be stockpiled, the height should not exceed 2m as outlined in 'Method 2' below.

~~5.3.27~~5.3.30 Although soils have a natural angle of repose of up to 40°, the maximum angle to ensure stockpile stability should be less than that. For stockpiles that are stored over winter and/or for long periods (e.g., more than 6 months), they should be stored at 25°, with the added recommendation that they are grass seeded.

~~5.3.28~~5.3.31 The final SMP will set out how areas of vegetation will be stripped to minimize the presence of plant material in the stockpile which could affect the soil quality. Cuttings must not be added to or mixed with the stripped soil.

Method 1: stockpile formation on dry non-plastic soils

~~5.3.29~~5.3.32 The excavated soils contained within dump trucks should be tipped in heaps. This should be undertaken in order, starting with the furthest end of the stockpile site from the access entrance. After designated stockpile areas are filled with soil heaps, tracked excavators or dozers may start to level and firm soil heaps. Following this, the sequence may be repeated. When stockpiles reach their planned height and size, a tracked vehicle should firm soils and shape and smooth sides to the planned slope angle.

Method 2: stockpile formation on wet, plastic soils

~~5.3.30~~5.3.33 It is not advised to stockpile wet soils as the soil is easily compacted by the weight of the soil above it. However, in unavoidable circumstances, the soils should be placed into windrows of no more than 2m in height to minimise compaction and maximise the surface area for drying. When dry, the soil may be re-turned to dry further before gathering into higher stockpiles.

~~5.3.31~~5.3.34 Excavated soils from dump trucks should be tipped in heaps to form 'windrows'. This should be undertaken in order, beginning with the furthest end of the stockpile to the access entrance. Space between 'windrows' should be sufficient for tracked vehicles to work between them to form larger 'windrows', which may be up to a maximum height of 2m.

~~5.3.32~~5.3.35 Once soils are dry (usually several weeks of dry and windy or warm weather), 'windrows' may be combined into larger stockpiles, for which the surface of the stockpile should be shaped into the target gradient and firmed by a tracked machine to limit rainwater infiltration.

~~5.3.33~~5.3.36 Gaps between stockpiles should be left for passing vehicles, which should not run over stockpiles.

Method 3: storage of peat soils

~~5.3.34~~5.3.37 Windrows are not suitable for peat soils and excavators should not travel over the top of stockpiled peat.

~~5.3.35~~5.3.38 Peat turves should be transferred intact to their stockpile location, with vegetation upright in a single layer on a geotextile material. They may be stored for up to 6 months. If storage is no more than 2 months, peat turves may be stored in double layers (separated by a geotextile).

~~5.3.36~~5.3.39 Loose peat that is not overly wet can be stored in stockpiles up to 2m high. Loose peat that is very wet should be stored in a bunded storage area to a

maximum depth of 1m. The bunded area should have a sedimentation pond to dewater wet peat and aid sediment containment. If the bunded area is to be connected to a sustainable drainage system (SuDS), it should be associated with filtration treatment facilities before being connected to the SuDS.

~~5.3.37~~5.3.40 Large stockpiles are preferable to numerous small stockpiles to minimize exposure to sun and wind.

~~5.3.38~~5.3.41 In periods of dry weather, watering may be required to protect the peat and stop it drying out.

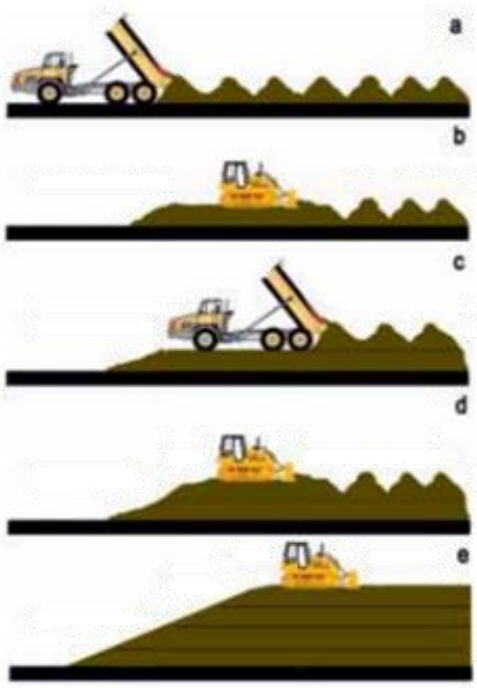

Figure 5-2. Stockpiling dry non-plastic soils

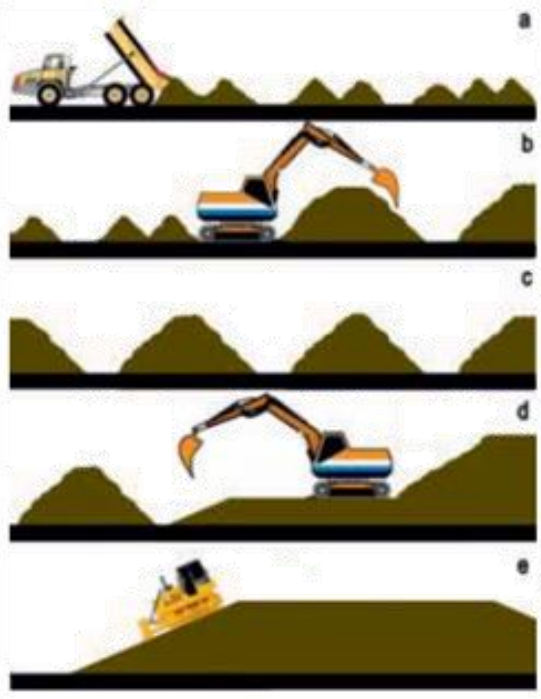

Figure 5-3 Stockpiling wet plastic soils.

Source: (Defra, 2009)

Stockpile maintenance

~~5.3.39~~5.3.42 Once soil stockpiles have been formed, the area should be cordoned off with secure fencing to prevent any disturbances or contamination by other construction activities.

5.3.43 If stockpiles are to be stored over winter or for a period of over six months (excluding peat soils), it is recommended that they are seeded with a grass/clover mixture as soon as possible to minimise soil erosion, nutrient loss and reduce ingression by weeds which may spread seed onto adjacent land. If weeds appear during the summer months, they should be removed by mowing/strimming to prevent seed spreading. Green cover over winter is particularly important as growing vegetation helps soil to dry out quickly to depth.

~~5.3.40~~

~~5.3.41~~5.3.44 If rainwater gathers on the stockpile surface or in areas adjacent to them, drainage pathways to soakaway areas should be provided.

~~5.3.42~~5.3.45 Peat soils may need to be watered to prevent them drying out. They should not be seeded.

~~5.3.43~~5.3.46 A storage database should be produced to accurately record all appropriate details regarding stored soils. This should include:

- farm name;
- field name;
- soil type;
- projected end-use;
- field vegetation type;
- soil depth stripped;
- soil layer (e.g. topsoil or subsoil);
- dates stripped and stockpiled; and
- an example of a soil storage record card is shown in Appendix A.4.

5.4 Soil reinstatement and reuse

5.4.1 The projected end-use of the soils will be for reinstatement of profiles and the formation of landscape features within the landscape masterplan as part of the LERMP (Appendix 8.14, App Doc Ref 5.4.8.14).

5.4.2 The main objective for the reinstatement of agricultural land is to restore the land to its original (pre-development) soil quality, as determined by ALC grade obtained during the pre-construction survey. This includes areas such as field scale ecological mitigation areas and borrow pits where reinstatement to the physical characteristics of its pre-development grade is required.

5.4.3 This is primarily achieved by ensuring that the full soil profile is reinstated in the correct sequence of horizons with minimal damage to soil structure, and in a state where good soil profile drainage and plant root development are achieved.

Soil reconditioning

5.4.4 Prior to reinstatement, soils may need to be reconditioned to restore quality and structure if soils are observed to be plastic due to soil wetness, or in instances of anaerobic conditions. Although this practice is suggested as a means of restoring quality, it presents the risk of causing additional damage, particularly as the target soils are likely to be at the limit of acceptable plasticity and may have low resilience to handling. The procedure should therefore not be relied upon, and a qualified soil

scientist should conduct a field test to determine whether the soil is too wet to be reconditioned. ~~T~~The following procedure should be followed:

- Tip soils in heaps to form windrows. This should start at the furthest point along the stockpile area and run toward the access point. Windrows should be spaced to allow for vehicles between them;
- Windrows should be produced with a rough surface to maximise drying;
- No machinery should traverse the windrows to avoid compaction, which may damage the suitability of the soil for reuse;
- Windrows should be turned until all soil has been exposed to the air to facilitate drying; and
- Throughout the process, windrows should be monitored.

5.4.5 In addition to the reconditioning of the stored soils, the substrate receiving the topsoil or subsoil should be loosened on the basis that it will be compacted during construction activities (Section 6.1 of Defra's CoCP (Defra, 2009)). Decompaction promotes deeper root growth and reduces flood risk by reducing the impedance of water drainage. Decompaction can be achieved with a method tailored to the available space and degree of compaction, as outlined in Table 5-3~~Table 5-3~~.

Table 5-3. Soil decompaction methods

Circumstance	Method
Restricted amount of space (e.g. planting beds and road verges)	A small (1 – 5t) to medium sized (13t) tracked excavator, fitted with a single rigid tine.
Open areas with moderately compacted soil	A tractor-drawn subsoiler or compressed air injection.
Highly compacted soil	A heavy-duty ripper equipment, such as a single rigid tine device.

Soil placement

5.4.6 Soil reinstatement will be subject to the same weather and soil texture constraints as soil stripping. Once it has been established that soils are suitable for reinstatement, they should be tipped and spread according to the 'loose-tipping' method as defined by Defra (Defra, 2009). The 'loose-tipping' method should only occur if the following conditions are met:

- soils must only be handled as per Section 5.3;
- all foreign objects (i.e. construction debris, wire, rope, wood, metal, plastic) should be removed from both receiving land and stockpiled soils before reinstatement;
- stripping vehicles must have room to easily pass each other; and
- prior to soil placement, the receiving ground (whether a basal layer or compacted subsoil) must first be loosened as per above.

5.4.7 This method involves working to a strip system where the width of the strip is determined by the reach of the excavator and the soil is replaced sequentially across the soiling area. The process is indicated within the diagram in **Figure 5-4~~Figure 5-4~~** and as follows:

1. A hydraulic excavator loads soil from stockpiles into dump-trucks. Dump-trucks may then discharge soils onto receiving surfaces.
2. An excavator stands next to the newly dropped soil and spreads this to the required thickness.
3. The whole length of the strip is restored with subsoil before the process is repeated with topsoil. The topsoil is lifted onto the subsoil without the excavator travelling on the newly placed subsoil, and topsoil and subsoil are not mixed. Only when the strip has been completed is the next one started.
4. If soil is cloddy in structure, the excavator bucket can be used to break up the clods. Large stones can be removed during the operation.

5.4.8 Modified versions of the loose-tipping method, for use when both subsoil and topsoil are to be placed, include spreading the subsoil as described above but then spreading the topsoil layer out using a low ground pressure dozer. Providing that soil conditions are suitably dry and dozer movements are minimised, this can gently consolidate the placed soil without causing over-compaction.

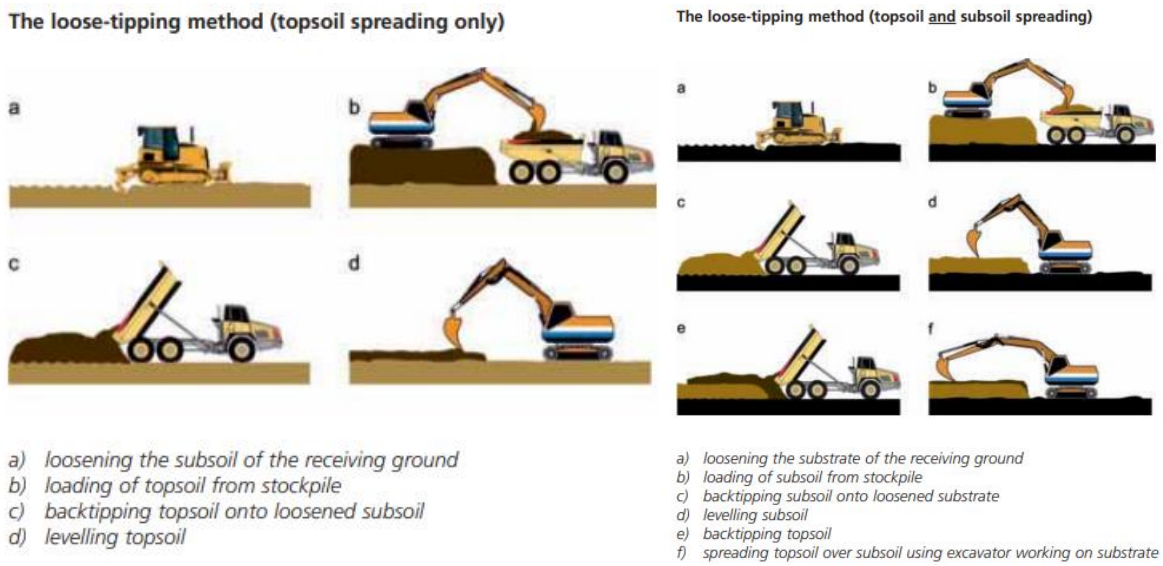

Figure 5-4. The loose-tipping method of soil reinstatement

5.5 Aftercare

5.5.1 Although well-executed soil management will minimise damage to soil resources, it is crucial to adhere to a period of aftercare and soil monitoring to ensure that reinstated soils are functional to the required level. For this reason, Defra guidance

(Defra, 2009) usually suggests that reinstated soils are subject to a period of aftercare. During this period, it is required that both soil and plant health is closely monitored to swiftly identify and rectify deficiencies. Guidance recommends 'hand digging small trial pits or auger holes at representative locations at agreed intervals with the landowner, or where adverse impacts are identified'. Adverse impacts include instances such as the identification of water seepage (indicating waterlogged conditions) or grey/olive colour and a sour odour (typical of soils suffering from anaerobic conditions).

5.5.2 Following any monitoring, aftercare reports should be produced, reporting upon the inspections conducted, results and dates. A minimum of one report will be prepared as the proposed minimum aftercare period is one year. It is recommended for aftercare monitoring to have a duration of one to five years. Although aftercare represents a crucial stage of the soil management process, an aftercare plan should not be relied upon as an alternative to sound soil handling procedures at any stage of the management process.5.5.

5.6 Monitoring

5.6.1 To minimise the risk to soil health and quality throughout the construction process, it is recommended that soil specialists monitor key stages of the soil handling process. This helps to ensure that the measures outlined in the recommendations for soil handling are being implemented to the required standard, during both construction and aftercare. As part of this, the Applicant should be notified if areas of soil resources are at risk of damage. Outside of key soil handling stages (stripping, stockpiling and reinstatement), auditing procedures will also be necessary to ensure that the appropriate inspections and checks continue to be undertaken, including the identification and rectification of non-compliances. It is recommended that supervision follows Defra's guidance (Defra, 2009) and includes:

- soil stripping, including verification of horizon depths and soil texture, moisture and weather condition assessment prior to soil stripping;
- soil stockpiling, including routine testing of soils in all stockpiles, confirmation of soil segregation, stockpile structure (checking for surface signs of erosion, water infiltration and intact boundaries between stockpiles) and appropriate stockpile recording;
- soil reconditioning, including the visual assessment of windrows and routine testing of key soil characteristics to deduce the effectiveness of reconditioning (as outlined in Section 5.4); and
- soil reinstatement monitoring to verify the effectiveness of restoration at representative locations, as well as ensuring that soils have been reinstated in correct sequence (as described in Section 5.4).

5.6.2 Table 5-4~~Table 5-4~~ summarises the needs for monitoring and record keeping during the construction phase.

Table 5-4*:* Proposed monitoring schedule

Item / activity	Monitoring approach	Responsibility	Frequency
Soil stockpiles	Check for heights Weed growth Erosion rills and gullies Run off to neighboring land	Contractor	Monthly After rainfall events of 10mm+ in 24h
Soil records	Check that the soil storage record cards are completed and kept until the soil is reinstated.	Contractor / Environment manager	
Soil handling practices	Compliance to measures within the SMP / construction method statements and plans. Have records been retained such as operations and weather observations, soil conditions observed, problems/challenges encountered, and corrective actions taken.	Contractor	Daily during soil handling activities
		Environment manager	Depends on monitoring frequency but assume weekly during peak soil handling periods
Reinstatement	Checking that the soil profile been reinstated, as much as practicable to do so, to pre works conditions. Have land drains been reinstated / is the reinstatement in line with approach agreed with the landowner.	Contractor / Environment manager	Following reinstatement activities
Aftercare	Significant differences in crop performance, compaction and waterlogging between the reinstated and undisturbed land.	TBC	Annually or as agreed for specific locations

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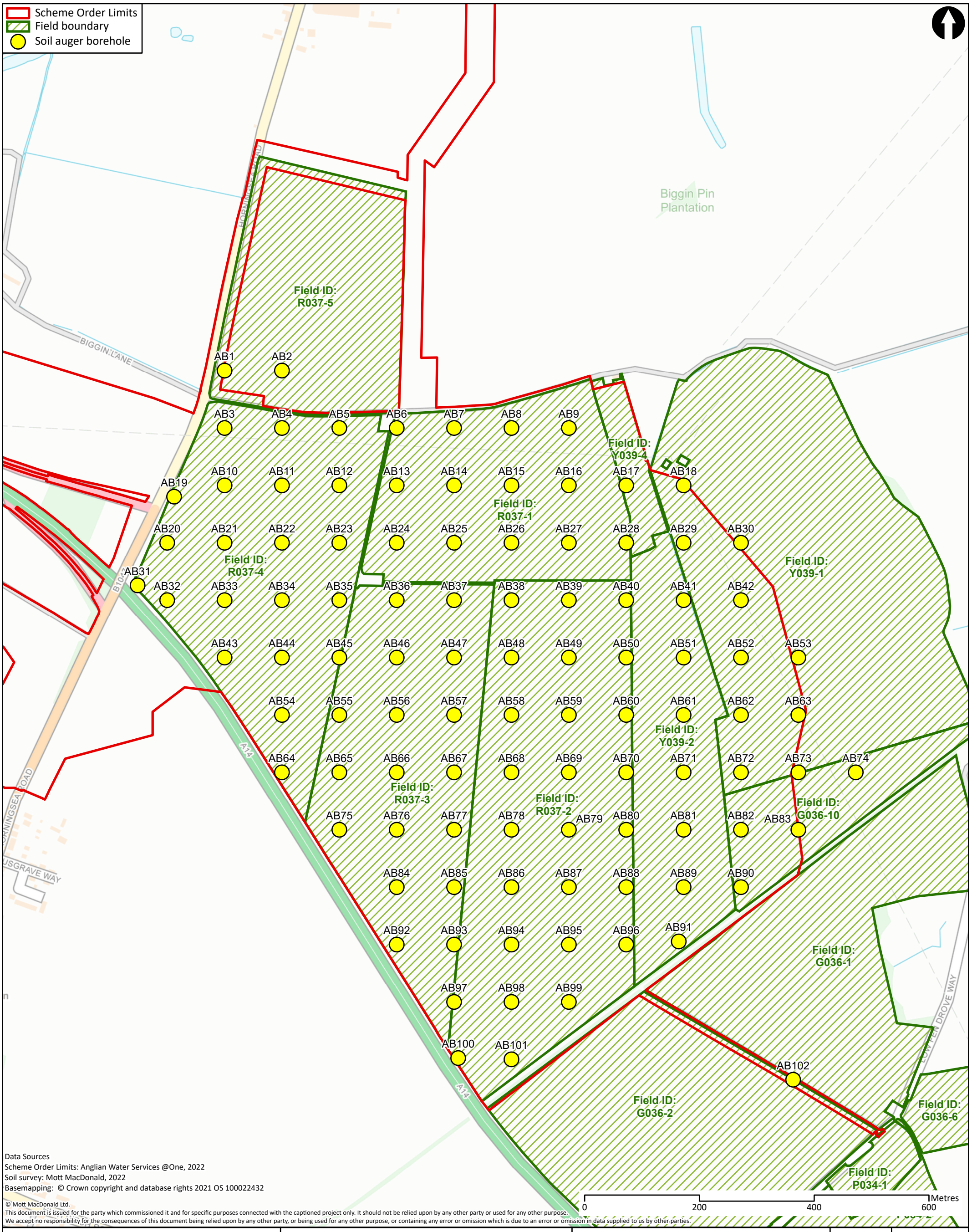
Appendices

Appendix A.1 – Site and Auger Borehole Location Map

Figure 6.3 of Book of Figures – Agricultural Land and Soils (App Doc Ref 5.3.6)



Data Sources
Scheme Order Limits: Anglian Water Services @One, 2022
Soil survey: Mott MacDonald, 2022
Basemapping: © Crown copyright and database rights 2021 OS 100022432

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Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	27/10/22	JB	First Draft	EM	CS

Title
Cambridge Waste Water Treatment Plant Relocation Project
Agricultural Land Classification
Soil survey auger borehole locations

Drawn	JB
Checked	EM
Approved	CS
Scale at A3	1:6,000

Drawing Number: WW01012-CAMEST-MOT-14-XX-DR-X-0010

Security	Status	Rev
STD	PRE	P1

Appendix A.2 – Soil Management Checklist

1. Predevelopment soil audit	✓ X
Have uncontaminated soil resources been identified on site?	
Has a detailed Soil Resource Survey of them been carried out by a suitably qualified soil scientist?	
Has a detailed report of the results been placed on file?	
Has the report been used to identify soil surpluses and soil deficits?	
Has space been identified for storage of any soils to be retained on-site for reuse?	

2. Soil Resource Planning	✓ X
Has a detailed Soil Resource Plan been produced?	
Has sufficient space been identified to store soils to be retained on site?	
Have volumes of each soil type been calculated?	
Has the type(s) of reuse been identified for each soil type to be retained?	
Have measures been put in place to protect soils to be stored or left in place from vehicle traffic?	
Has a qualified person been identified to supervise soil management?	

3. Topsoil stripping	✓ X
Is uncontaminated topsoil to be stripped from the site for reuse?	
Has surface vegetation been removed or killed?	
Has the overall soil stripping plan been developed and communicated to machine operators?	
Has topsoil stripping depth been defined and communicated to machine operators?	
Has the appropriate equipment been selected for stripping the topsoil?	
Does the working plan avoid machines travelling over topsoils to be reused?	
Have stripping activities been scheduled to avoid wet conditions?	
Is there provision to stand-down equipment if heavy rain occurs during topsoil stripping?	

4. Subsoil stripping	✓ X
Is uncontaminated subsoil to be stripped from the site for reuse?	
Has the overall soil stripping plan been developed and communicated to machine operators?	
Has subsoil stripping depth been defined and communicated to machine operators?	
Has the appropriate equipment been selected for stripping the soil?	
Does the working plan avoid machines travelling over subsoils to be reused?	
Have stripping activities been scheduled to avoid wet conditions?	
Is there provision to stand-down equipment if heavy rain occurs during topsoil stripping?	

5. Soil stockpiling	✓ X
Has sufficient space been identified to store soils to be retained on site?	
Has topsoil been removed from areas earmarked for storing subsoil or other materials?	
Are stockpiles located away from retained trees, current or future excavations, voids or watercourses?	
Are stockpiles likely to be relocated before the contents are reused?	
Have stockpile construction methods been (or will they be) adjusted to deal with wet soils?	
Have stockpile side slopes and top been tracked down for stability and weather proofing?	
Are stockpiles to be seeded with grass?	
Is there a maintenance plan in place for management of stockpile vegetation?	
Have the contents of each stockpile been accurately recorded on a plan and on signs?	

6. Soil placement	✓ X
Are topsoils or subsoils to be spread?	
Has the overall soil placement plan been developed and communicated to machine operators?	
Has the spreading thickness for each layer been defined and marked out using level boards	
Has the appropriate equipment been selected for decompacting subsoil and spreading topsoil?	
Have appropriate work methods been defined to avoid machinery traffic over newly placed soil?	

Have spreading activities been scheduled to avoid wet conditions?	
Is there provision to stand-down equipment if heavy rain occurs during soil spreading?	

7. Sourcing and importing soil	✓ X
Is soil to be imported to site?	
Have the soil composition requirements been properly defined for the different planned uses?	
Has the source of the imported soils been verified?	
Is the soil natural (e.g. stripped from a field or stockpiled from a field)?	
Is the soil manufactured or blended from one or more components?	
Do imported topsoils come with a verified analysis to BS3882:2007?	
Have all waste legislation requirements been met for all imported soil?	
Is there an appropriate quality control and inspection strategy for individual loads?	

8. Topsoil manufacture	✓ X
Is topsoil to be manufactured on site?	
Has the feasibility been assessed and source components been analysed?	
Have all waste legislation requirements been met for all imported components?	
Has a mixing method statement been prepared for producing soils of each composition required?	

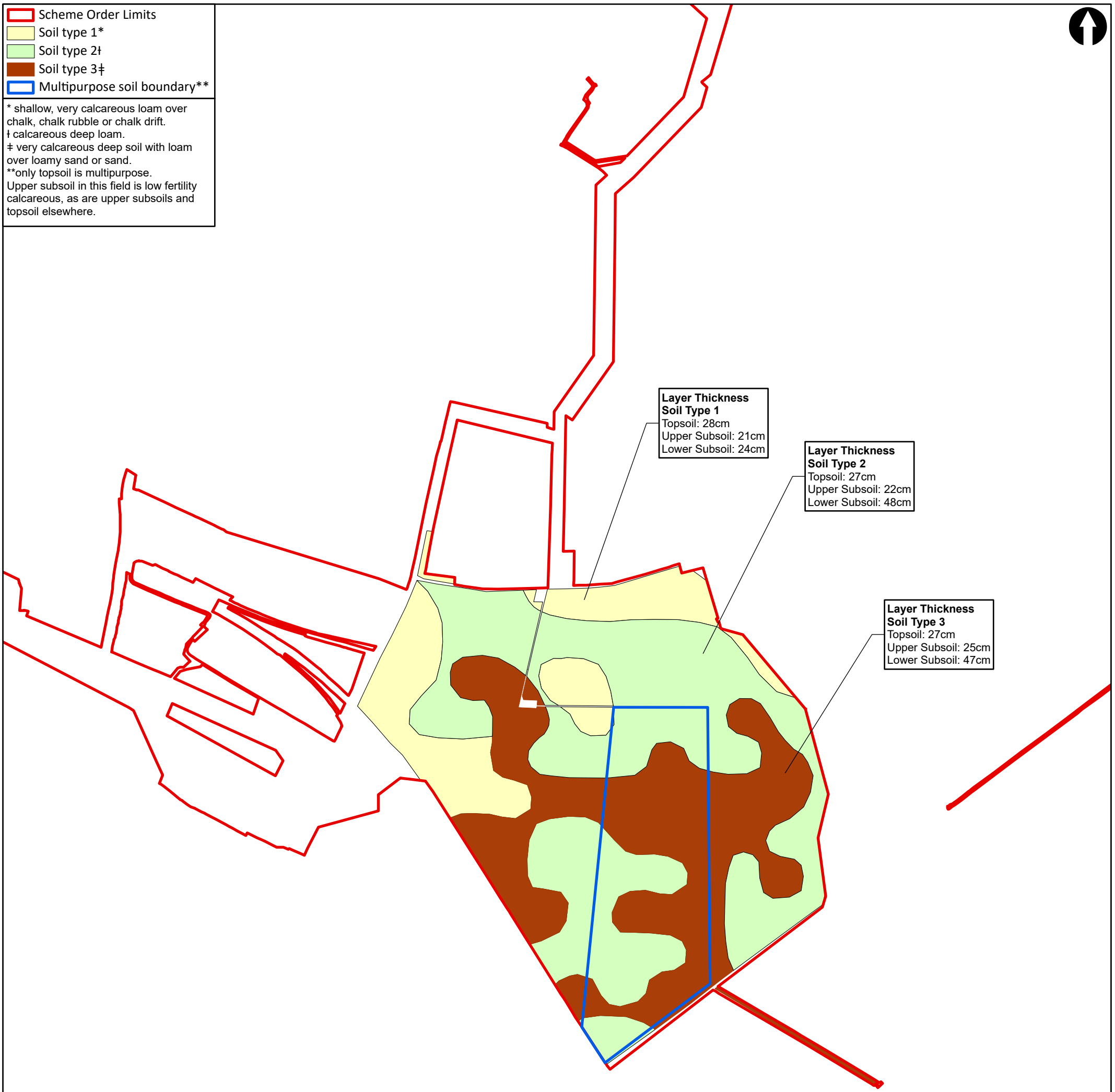
9. Soil aftercare	✓ X
Is there a plan in place to check soil and vegetation health after spreading?	
Are there provisions in the landscape maintenance contract for remediation of ongoing soil deficiencies such as soil compaction?	
Have all waste legislation requirements been met?	
Are there surplus resources of clean soil on site?	
Have the soil needs of nearby developments or reclamations been investigated?	
Has the surplus soil been advertised on soil or waste exchange networks?	
Are all waste legislation requirements being met for soils to be exported?	

Appendix A.3 – Soil Type Map

Figure 6.4 of the Book of Figures – Agricultural Land and Soils (App Doc Ref 5.3.6)

Scheme Order Limits
Soil type 1*
Soil type 2ł
Soil type 3‡
Multipurpose soil boundary**

* shallow, very calcareous loam over chalk, chalk rubble or chalk drift.
ł calcareous deep loam.
‡ very calcareous deep soil with loam over loamy sand or sand.
**only topsoil is multipurpose.
Upper subsoil in this field is low fertility calcareous, as are upper subsoils and topsoil elsewhere.



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Cambridge Waste Water Treatment Plant Relocation Project
Agricultural Land Classification
Soil type

Drawn	JB
Checked	EM
Approved	CS
Scale at A3	1:10,000

Drawing Number
WW01010-CAMEST-MOT-12-XX-DR-X-0008

Security	Status	Rev
STD	PRE	P1

Appendix A.4 – Soil Stockpile Record Card

Stockpile identification		**Record**	**Additional notes**
Stockpile ID:			
Stockpile establishment date (dd/mm/yyyy):			
Stockpile location (e.g. coordinates):			
Source (e.g. farm name, field):			
Intended soil end use:			
Soil horizon	**Soil type**	**Depths (cm)**	**Volume (m^3)**
Topsoil			
Subsoil 1			
Subsoil 2			
Subsoil 3			
Stockpile maintenance		**Record**	**Additional notes (e.g. type of seed, type of maintenance, steps undertaken if not seeded)**
Grass/clover seeded?		☐ No ☐ Yes – establishment date (dd/mm/yyyy):	
Grass/clover cover maintenance date(s) (dd/mm/yyyy):		Year 1: Year 2: Year 3: Year 4: Year 5:	
Graphical record?		☐ Stockpile sketch map (inc. horizons) ☐ Photograph	

Get in touch

You can contact us by:

Emailing at **info@cwwtpr.com**

Calling our Freephone information line on **0808 196 1661**

Writing to us at **Freepost: CWWTPR**

You can view all our DCO application documents and updates on the application on The Planning Inspectorate website:

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/cambridge-waste-water-treatment-plant-relocation/