

Crown Quay Lane, Sittingbourne: Environmental Setting and Site Design Report



August 2022

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Prepared for
Keltbray Built Environment Limited
St. Andrew's House,
Portsmouth Road,
Esher,
Surrey,
KT10 9TA

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New Zealand House, 160-162 Abbey Foregate,
Shrewsbury, Shropshire
SY2 6FD

Telephone: +44 (0)1743 276 100
Facsimile: +44 (0)1743 248 600




Registered Office:
Stantec UK Ltd
Buckingham Court
Kingsmead Business Park
Frederick Place, London Road
High Wycombe HP11 1JU
Registered in England No. 1188070

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	Name	Signature
Author	Georgina Watkins	
Checked by	Chris Berryman	
Reviewed by	Chris Berryman	

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Contents

1	INTRODUCTION	1
1.1	Report Context	1
1.2	Pre-Application Correspondence	1
1.3	Proposed Activity Planning Status	2
2	SITE DETAILS AND BOUNDARY	3
2.1	Site Details	3
2.2	Environmental Permit Boundary	3
3	SOURCE TERM CHARACTERISATION	6
3.1	Historical development	6
3.2	Proposed development	6
3.3	Material Requirements	7
3.4	Material Placement	8
4	PATHWAY AND RECEPTORS	10
4.1	Data sources	10
4.2	Sensitive Receptors	10
4.3	Geology	11
4.3.1	Bedrock Geology	11
4.3.2	Superficial Geology	12
4.3.3	Made Ground	13
4.4	Hydrology	14
4.4.1	Rainfall	14
4.4.2	Surface water features	14
4.4.3	Licensed surface water abstractions	14
4.4.4	Surface water quality	14
4.4.5	Flood Zones	14
4.4.6	Discharge consents	15
4.5	Hydrogeology	16

4.5.1	Groundwater classifications	16
4.5.2	Groundwater abstractions	17
4.5.3	Groundwater levels and flow	18
4.5.4	Aquifer properties	18
4.5.5	Groundwater quality	19
4.5.6	Hydrogeological Risk Assessment	19
4.5.7	Summary of identified pathways	19
4.5.8	Summary of identified receptors	19
4.6	Local human population	19
4.6.1	Dust and Particulates	20
4.6.2	Noise	20
4.6.3	Odour	21
4.6.4	Mud and Debris	21
4.6.5	Pests and vermin	21
4.7	Habitats and protected sites	22
5	POLLUTION CONTROL MEASURES	23
5.1	Site Engineering	23
5.2	Development	23
5.3	Post-closure controls	23
6	MONITORING	24
6.1	Leachate	24
6.2	Gas	24
6.3	Topographical Survey	24
7	SITE CONDITION REPORT	25
8	CLOSURE	26
9	REFERENCES	27

FIGURES

Figure 2.1	Site location	5
Figure 3.1	Areas proposed for placement of waste material currently available at the Site (stabilised waste) and importation of additional waste	9
Figure 4.1	Bedrock Geology	12
Figure 4.2	Superficial Geology	13

TABLES

Table 2.1	Site Setting	4
Table 3.1	Proposed Waste Types	8
Table 4.1	Potentially sensitive receptors in the vicinity of the Site	10
Table 4.2	Active discharge consents with 1km of the Site	15
Table 4.3	Licensed abstractions with 1 km	17

DRAWINGS

Permit Boundary Plan	Drawing No. 330201595D1
Sensitive Receptors	Drawing No. 330201595D2

APPENDICES

Appendix A	Pre-Application Correspondence
Appendix B	Planning Permission
Appendix C	Development Plans
Appendix D	Waste Acceptance Procedure

1 Introduction

1.1 Report Context

Stantec UK Ltd (Stantec) has been instructed by Keltbray Built Environment Ltd (Keltbray) to prepare an Environmental Permit (EP) application for deposit of waste for recovery operations at Crown Quay Lane, Sittingbourne, Kent, ME10 3ST (the Site).

Keltbray will be the “Operator” under the EP and its role as Contractor to the Developer of the Site, Bellway Homes Ltd (Bellway).

This report prepared by Stantec addresses Appendix 2, Question 1 of Part B4 of the Environment Agency (EA) EP application forms (EPB4 Version 12, August 2020), which requires the provision of an Environmental Setting and Site Design (ESSD) report.

The deposit of waste for recovery operations at the Site will be operated under a Bespoke EP as, based on location criteria, there is no suitable standard rules permit for the proposed activity. It is estimated that 26,000m³ of material will be deposited at the Site under the EP in order to construct a development platform for a residential development.

The aim of this report is to describe the regulated facility in relation to its environmental setting, identifying the source term, pathways and receptors that will be used as the basis for the supporting Environmental Risk Assessment (ERA), - which is required to consider the potential environmental impacts from the proposed operations (Stantec, 2022b)

The ESSD also sets out the Pollution Control Measures that need to be incorporated within the Site Design to minimise the risks to the environment.

An assessment on climate change is not required for this EP application due to the expected timescale of the EP of fewer than five years. As stated in Question 6b of EA permit application form Part B2 (EPB2 Version 17, July 2021), if the permit is required for fewer than five years than a climate change risk assessment does not need to be completed.

1.2 Pre-Application Correspondence

Pre-application discussions were undertaken between Stantec and the EA in 2021 under EA pre-application reference EPR/KB3005XD/A001. A summary of the pre-application correspondence to date is provided in chronological order below. Correspondence is also provided in full in **Appendix A**:

- 3 March 2021: EA Pre-application advice (basic service) for the application.
- 1 April 2021: Letter from Mark Oxford (EA) to Stantec. Advice received indicated that the EA did not agree with the recovery versus disposal assessment provided in the original Waste Recovery Plan (WRP) due to the absence of planning permission at the time.

As indicated above, a WRP was submitted to the EA by Stantec which the EA was unable to confirm would constitute recovery in its advice letter dated 1 April 2021. The EA however advised that the proposed works at the Site would likely be considered as “recovery” once planning permission for the Site was issued. As such the formal application has not been advanced until planning permission and associated legal agreements have been confirmed.

Planning permission for the Site has since been granted on 22 June 2022 (Section 1.3). Amendments to the WRP have been made in light of planning permission and associated obligations and legal agreements. A copy of the amended WRP is included as part of the deposit for recovery Environmental Permit Application Package for assessment (Stantec, 2022a). Based on previous correspondence with the EA, it is understood that the EA will provide agreement with the assessment, that the proposed activity is a deposit for recovery operation.

1.3 Proposed Activity Planning Status

A planning application (Ref. 20/503325/FULL) was submitted to Swale Borough Council in July 2020 by Bellway. The application sought permission for the:

“Erection of 107 residential dwellings together with associated access, infrastructure, drainage, open space and landscaping.”

Planning permission for the works was granted on 22 June 2022. A copy of the Decision Notice is included as **Appendix B**.

Reports and drawings included within the planning application are used within the Environmental Permit application, where applicable. The full planning application can be viewed online from the planning website of Swale Borough Council:

<https://pa.midkent.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVa:=QDZ63UTY0XI00>

Planning drawings of the development are provided in **Appendix C**.

2 Site Details and Boundary

2.1 Site Details

The Site is located within a 'mixed use' area, with large industrial units immediately bounding the Site. Further south of the Site is Sittingbourne Railway Station, with Sittingbourne High Street and Town Centre being located approximately 650 m south west of the Site. Milton Creek, part of the Swale Estuary, is located adjacent to the Site and to the north and north east of the Site. The general Site location is indicated in Figure 2.1. The Site is accessed via an entrance point off Crown Quay Lane.

The Site is proposed to be developed into an area of 107 residential properties with associated infrastructure. The planning application identifies a development area of 2.08 hectares, with the Site boundary being shown on the 'Supporting Planning Layout' Drawing No. 051904-BEL-K-02 (**Appendix C**). The Site is centred on approximate National Grid Reference TQ 90821 64060. Further detail regarding the Site setting and local land use is provided in Table 2.1.

There are a number of properties / businesses in the vicinity of the Site. Nearby receptors to the Site are considered in Section 3.4 of this ESSD report.

2.2 Environmental Permit Boundary

The proposed EP application boundary is shown in green on Stantec Drawing No. 330201595D1.

Table 2.1 Site Setting

Site address	Land East Of Crown Quay Lane Sittingbourne Kent ME10 3ST	
NGR	TQ 90821 64060	
Site location	The Site is located within the residential town of Sittingbourne, Kent and is located approximately 650 m north east of the town centre and high street. Existing access to the Site is via Crown Quay Lane, which runs along the eastern boundary of the Site.	
Topography	The majority of the land is relatively flat, with ground elevations in the order of between 4.4 mAOD (metres Above Ordnance Datum) to 4.8 mAOD. There are slopes located along the northern and eastern boundaries, where the ground levels decrease to a low of approximately 1.3 mAOD. Three stockpiles of inert waste are located on the Site, which are proposed to be used in the recovery activity. The topography of the Site is shown on the Topographical Survey Sheet 1, Drawing No. CM/181000 (Appendix C).	
Previous land use	The Site has been used for a range of land uses, including printing works, concrete production / cement works, bulk liquid storage, backfilling marshland, and docks. The most recent use of the Site was as a waste transfer site for construction and demolition waste.	
Surrounding land use	North	The site abuts mudflats to the north, which form part of Milton Creek. Milton Creek is designated as part of the Swale Estuary Marine Conservation Zone (MCZ) and Milton Creek Local Wildlife Site (LWS). Milton Creek Country Park is located further north, approximately 70 m from the Site. To the north west of the Site lies Bayford Meadows Kart Circuit, approximately 140 m from the Site. Biffa Sittingbourne (household waste transfer facility) is located approximately 770 m north of the Site.
	East	A concrete producer (Supreme Concrete) is located off Crown Quay Lane to the immediate east of the Site. Industrial units making up Eurolink Industrial Estate are located further to the east. A small tributary of the Swale is located immediately east of the Site.
	South	A timber supplier (Odds Timber) is located immediately south of the Site, with other industrial units located further south. The B2006 is located approximately 230 m south of the Site, with Sittingbourne Train Station being located approximately 470 m south west of the Site.
	West	A builders' merchant (Jewson Sittingbourne) is located to the west of the Site, adjacent to Crown Quay Lane. An area of disused land (allocated for residential development) is also located to the west of the Site.

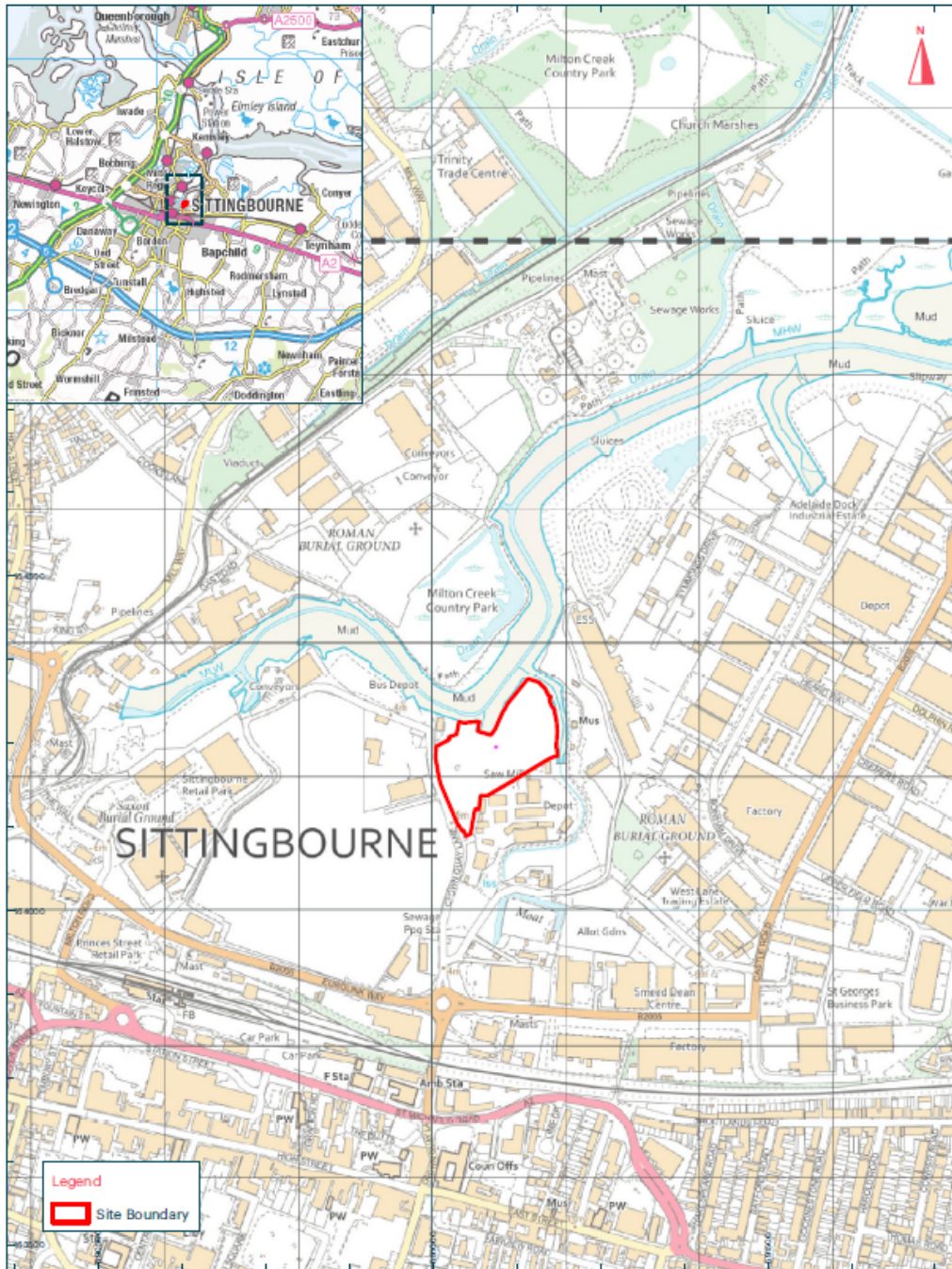


Figure 2.1 Site location

3 Source Term Characterisation

3.1 Historical development

The Site has been subject to a variety of different uses, including as the location of oilcake works, cement works, printing works, waste operations and use as a wharf. It is evident from historical mapping of the Site that backfilling of the wharf and tidal mud flats has previously occurred.

From 2007 to mid-2013, waste operations were undertaken of the Site associated with a grab hire lorry business. It is understood that the waste operations were initially undertaken under a waste exemption until 2010. Waste operations continued without a Waste Exemption or Environmental Permit being in place until 2013 at which time Bellway took possession of the Site. A deposit of waste was left on the Site from the waste operations undertaken by the previous occupier of the land. The material is defined as 'waste' purely due to its circumstance. These materials were deemed to have originated from previous waste transfer activities and include grab hire materials. It was therefore considered that the material has been generated from multiple sources.

An investigation was carried out on the waste in 2013 by Leap Environmental Limited (Leap) (LEAP Environmental, 2013). Leap found that the waste contained contravening materials e.g. metal, plastic, glass and visually identifiable asbestos. In 2017, Keltbray undertook processing of the stockpiled waste, recovering suitable soil material for re-use on the Site. Subsequent sampling and analysis of the soil component of the material showed the soil was suitable for reuse on a site with a residential end-use and would not pose a risk to controlled waters. Keltbray produced a Completion Report, documenting the removal of asbestos and contravening materials from the stockpiled material (Keltbray Remediation Limited, 2017)). The resulting stockpiled waste currently stored on the Site is therefore free from asbestos and contravening materials. The screened soils have been retained on-Site and total a volume of approximately 14,000m³. This material will be subject to stabilisation to render it chemically and geotechnically suitable for placement. Stabilisation trials have been undertaken by CE Geochem Ltd (CE Geochem, 2022). The EP that this ESSD supports seeks to both regularise the storage of this deposited waste and facilitate its recovery and permit the import of an additional c. 12,000 m³ of suitable material.

In April 2020, it is understood that there was a further incident of an unauthorised deposit of approximately 4,000m³ of waste at the Site by an unknown third-party. The incident was reported to the EA. Analysis of the waste indicated that the material was not suitable to be sent off-site to an inert landfill. Therefore, the unauthorised wastes were removed from Site at the client's cost for disposal at a suitably licensed waste facility.

The current topography of the Site is shown on "Topographical Survey Sheet 1", Drawing No. CM/181000 (**Appendix C**).

3.2 Proposed development

The proposed redevelopment of the Site is for residential housing, including private gardens, areas of public open space, access roads and associated car parking.

Due to the location of the Site adjacent to Milton Creek, levels are to be raised to mitigate the flood risk to the site. Prior to development proceeding, remediation works will be undertaken on the Made Ground at the Site as previous investigations have shown that there are currently risks to Controlled

Waters from this material. This will be followed by the placement of a clean cover system of subsoil and topsoil in private gardens and public open space to protect future end users. All works will be undertaken in accordance with the planning approval.

For clarity, the development proposed to be undertaken under the deposit for recovery EP are the works associated with the construction of the development platform to facilitate the construction of residential dwellings only. Waste is not proposed to be deposited into water. The total amount of material required to complete the construction of the development platform is expected to be 26,000m³.

The existing 14,000m³ of deposited material by the previous occupier of the land, as well as an additional 12,000m³ of material to be imported onto the Site, is required to develop the Site in accordance with the development plans included in the granted planning permission.

The planning permission for the proposed development was granted by Swale Borough Council on 22 June 2022. Information from the documents within the planning application is used in this report, where relevant, to detail the measures Keltbray will employ to operate the Site, whilst minimising harm to the environment and human health.

Appendix C contains Development Plans relating to the operations to be carried out in accordance with the planning permission when approved by Swale Borough Council. Development plans include:

- Supporting Planning Layout Drawing No. 051904-BEL-K-02
- Indicative Development Platform Section Drawing No. 9200-EWK-002 P02
- Topographical Survey Sheet 1 Drawing No. CM/181000
- Landscape Strategy Plan Drawing No. 7037.LS.1.0

The WRP (Stantec, 2022a) includes additional planning documents, including the Design and Access Statement for the Site.

The proposed final landform at the Site is shown on Indicative Development Platform Section Drawing No. 9200-EWK-002 P02.

3.3 Material Requirements

Materials required for the recovery operation will include the use of the material currently stored on the Site (14,000m³) and imported engineering materials (12,000m³). As such there are considered to be two distinct waste streams for the Site. Stabilisation works are to be undertaken on the material currently stored on the Site. The stabilisation works are not covered under this EP application. The resulting material will be assigned the List of Waste (LoW) code 19 13 02 "*Solid wastes from soil remediation other than those mentioned in 19 13 01**".

Materials to be used in the recovery operation will principally include topsoil, aggregates and cohesive fill. Suitable imported materials are proposed to be inert in nature.

Inert material is defined by the Landfill Directive as material that does not undergo any significant physical, chemical or biological transformations. Inert material will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total

leachability and pollutant content of the inert material and the ecotoxicity of the water passing through it must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

Wastes to be used in the development will be accepted and classified in accordance with the Waste Acceptance Procedures as presented in **Appendix D**.

Details of the LoW codes that will be accepted under the EP are provided in Table 3.1. A detailed risk assessment for the inclusion of these waste types is included within the ERA (Stantec, 2022b).

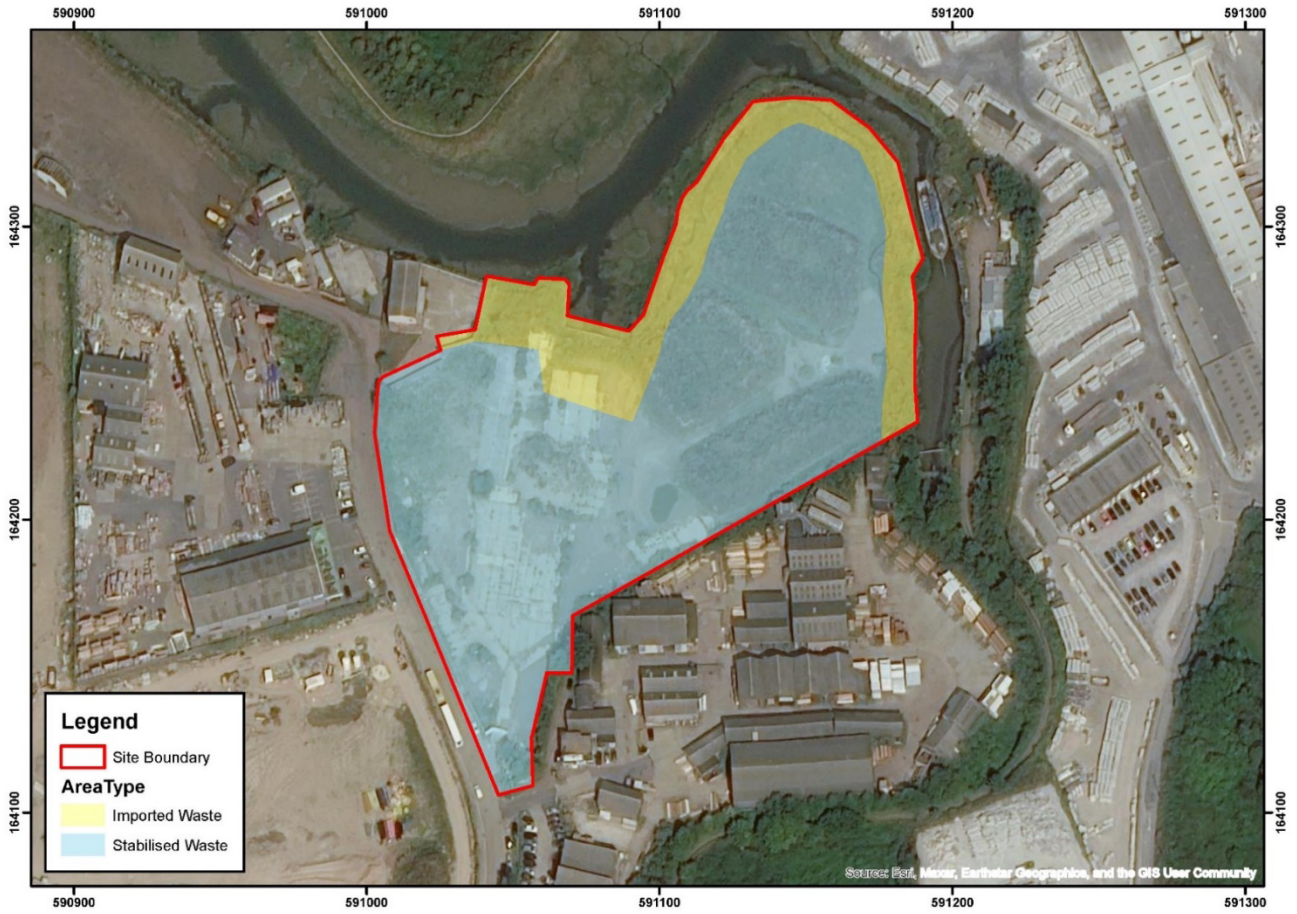
Table 3.1 Proposed Waste Types

LoW Code	Description
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOILS FROM CONTAMINATED SITES)
17 05	Soil (including excavated from contaminated sites) soil and dredging spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Other wastes (including mixtures of materials) that have undergone mechanical treatment, other than those mentioned in 19 12 11
19 13	Soil and groundwater remediation
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01

3.4 Material Placement

Prior to the placement of waste in the Site, the top 1 m of Made Ground will be excavated leaving a remaining depth of around 2 m of Made Ground. The stabilised material and imported waste will be placed in engineered layers providing a development platform and raising the site level to approximately 1 m above existing level. Imported wastes will be placed around the perimeter of the Site adjacent to Milton Creek and stabilised material towards the centre, as shown on Figure 3.1. It should be noted that that imported wastes will also be placed on top of the stabilised material to achieve the required formation level.

Figure 3.1 Areas proposed for placement of waste material currently available at the Site (stabilised waste) and importation of additional waste



4 Pathway and Receptors

4.1 Data sources

The conceptual Site setting has been interpreted from several sources as follows:

- Preliminary Contamination Risk assessment prepared by LEAP (LEAP Environmental, 2013), Ref. LP00584, dated 30th September 2013
- Investigation Report and Asbestos Risk Assessment prepared by LEAP (LEAP Environmental, 2014), Ref. LP00716, dated 6th June 2014
- Phase II Geotechnical Report prepared by LEAP (LEAP Environmental, 2017a), Ref. LP01205, dated 3rd March 2017
- Material Processing Closure Summary prepared by LEAP (LEAP Environmental, 2017b) Ref. LP01205, dated 27th April 2017
- Phase II Contamination Report prepared by LEAP (LEAP Environmental, 2017c) Ref. LP01205, dated 25th July 2017
- Phase III Site Investigation Report prepared by LEAP (LEAP Environmental, 2019a) , Ref. LP1802, dated 28 February 2019
- Additional Investigation Letter Report prepared by LEAP (LEAP Environmental, 2019b), Ref. LP2081 dated 29 November 2019
- Illegal Waste Classification Report prepared by LEAP (LEAP Environmental, 2020), Ref. LP2244, dated 05 June 2020.
- Risk Assessment for Reuse of Stockpiled Materials prepared by LEAP (LEAP Environmental, 2021a) , Ref. LP2448, dated 25 January 2021
- Detailed Quantitative Risk Assessment for Controlled Waters prepared by LEAP (LEAP Environmental, 2021b), Ref. LP2448, dated 29 January 2021
- Flood Risk Assessment (FRA) prepared in support of planning (WSP, 2019).

4.2 Sensitive Receptors

The Sensitive Receptors identified in Table 4.1 are considered in the supporting ERA (Stantec, 2022b) and the HRA (Stantec, 2022d). The direction and distances from the boundary of the Site to each of the sensitive receptors are provided. The references R1 to R18 are shown on Stantec Drawing No. 330201595D2.

Table 4.1 Potentially sensitive receptors in the vicinity of the Site

Ref	Receptor	Receptor type	Distance (m)	Direction from nearest boundary
R1	Public Highway: Crown Quay Lane	Public highway (road)	<10	W
R2	Milton Creek	Surface water feature	10	N and NE
R3	Odds Timber	Timber merchant and storage area	10	S

R4	Jewson Sittingbourne	Builders' merchant	20	W
R5	Supreme Concrete	Concrete manufacturer	60	E
R6	Milton Creek Country Park	Country Park	80	N
R7	Bayford Meadow Kart Circuit	Outdoor go-cart track	140	NE
R8	Regent Quay	Residential development off Robertson Drive	170	SW
R9	Allotment gardens	Allotment gardens	190	SE
R10	B2006	Public highway (road)	230	S
R11	Sittingbourne Retail Park	Retail units and associated parking / infrastructure	270	W
R12	Eurolink Industrial Estate	Industrial units	450	E
R13	Sittingbourne Train Station	Railway station	490	SW
R14	Milton Creek Local Wildlife Site	Protected habitat – Local Wildlife Site	520	NE
R15	Biffa Sittingbourne	Household waste transfer facility	770	N
R16	Deciduous woodland	Nearest deciduous woodland to the Site	910	E
R17	Murston Old Church	Scheduled Monument	1000	NE
R18*	The Swale	SSSI, SPA and Ramsar Site	1600	NE
R19	Groundwater	Groundwater	0	N/A – beneath the Site

*Although the exact location of the Swale SSSI, SPA and Ramsar Site is not shown on 330201595D2, it is the nearest significant sensitive protected habitat to the Site.

All of the sensitive receptors identified in **Table 4.1** have been considered within the ERA completed as part of the EP application and are considered within the subsequent sections of this ESSD report.

4.3 Geology

4.3.1 Bedrock Geology

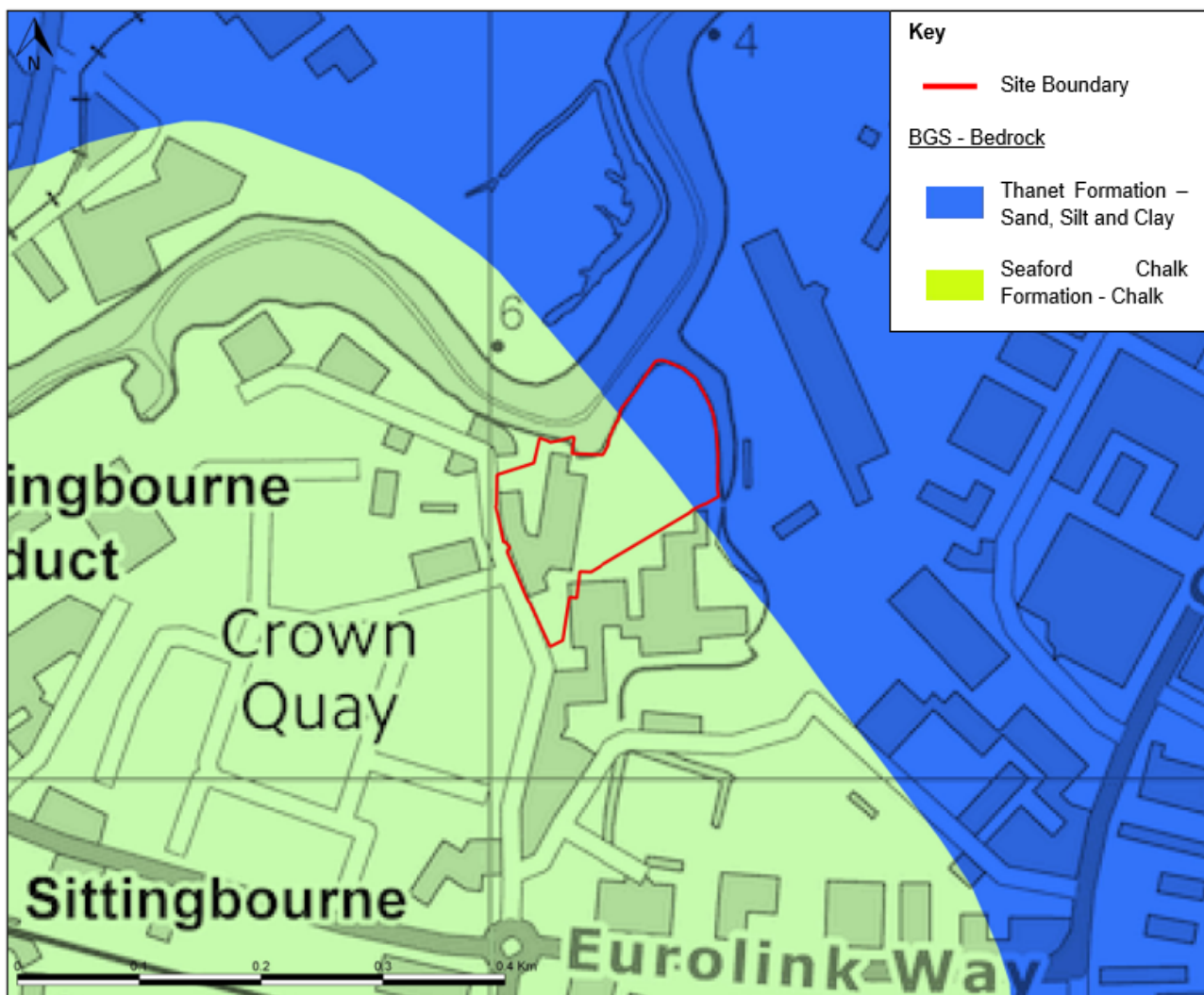
Bedrock geology is defined by British Geological Survey website as

“a term used for the main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water”.

The majority of the bedrock geology at the Site is classified as “Seaford Chalk Formation – Chalk”. The sedimentary bedrock formed approximately 84 to 90 million years ago in the Cretaceous Period. The local environment was previously dominated by warm seas. These sedimentary rocks are shallow-marine in origin. According to the borehole and trial pit logs from previous investigations at the Site, between 1.5 and 9.5 m at the top of the Chalk comprises structureless chalk, comprising silts and gravels.

Bedrock geology in the north-eastern corner of the Site is considered to be of the “Thanet Formation – Sand, Silt and Clay” sedimentary bedrock formed approximately 56 to 59 million years ago in the Palaeogene Period. These sedimentary rocks are shallow marine in origin. This classification has been obtained from the British Geological Survey Geology Map.

Figure 4.1 Bedrock Geology



4.3.2 Superficial Geology

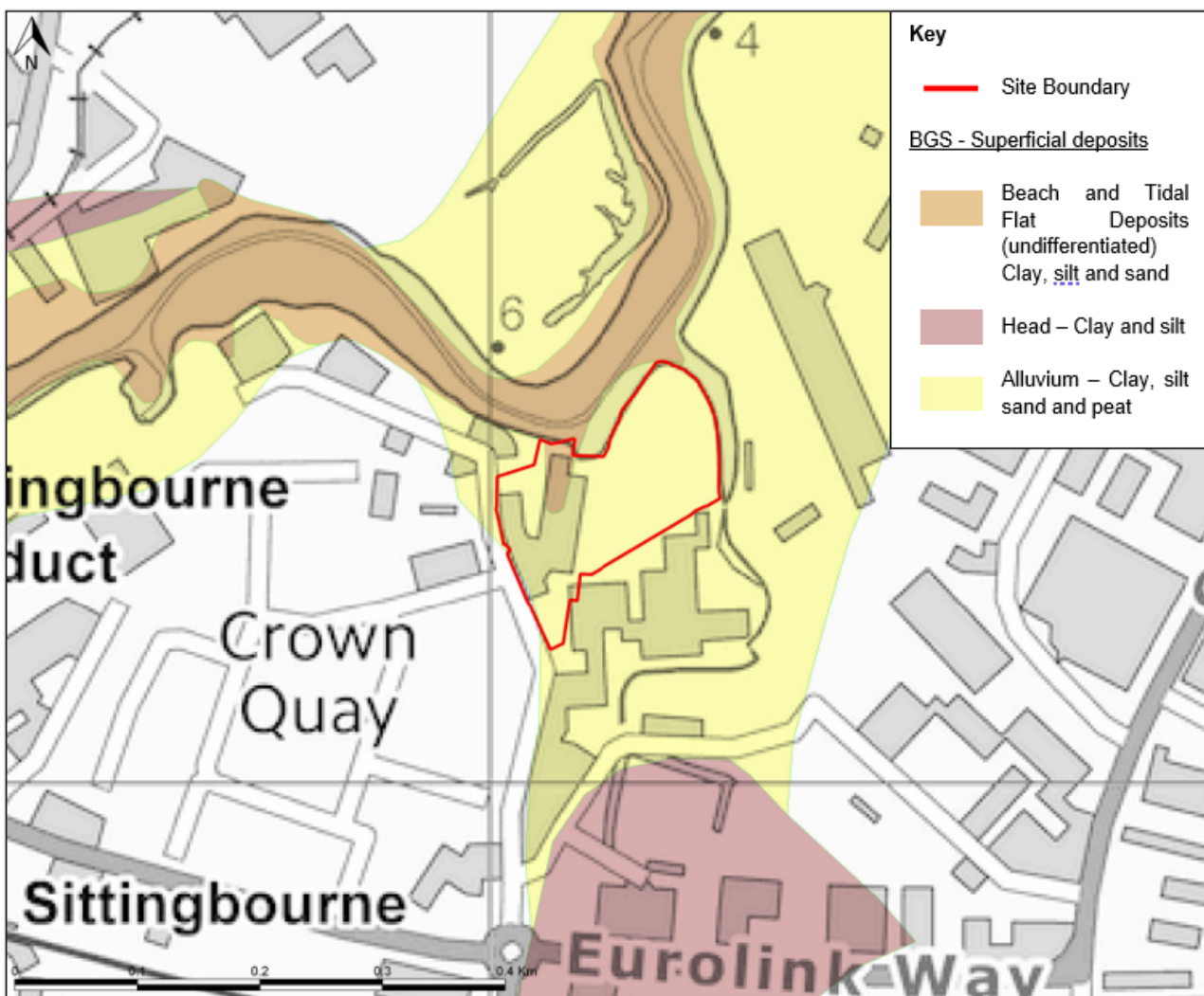
Superficial deposits are defined by the British Geological Survey website as

“the youngest geological deposits forms during the most recent period of geological time, the Quaternary, which extends back about 2.6 million years from the present.”

The superficial deposit geology at the Site is classified as “Alluvium – clay, silt, sand and peat”. The superficial deposits formed up to 2 million years ago in the Quaternary Period. The local environment was previously dominated by river conditions. These sedimentary deposits are fluvial in origin. They are detrital, ranging from coarse to fine grained and form beds and lenses of deposits. This classification has been obtained from the British Geological Survey Geology Map.

According to the borehole and trial pit logs from LEAP, the Alluvium has a thickness of between 2.6 and 3.9 m and comprises silty and sandy clays with occasional gravelly clay.

Figure 4.2 Superficial Geology



4.3.3 Made Ground

The Site has been subject to various intrusive investigations, as set out in Section 4.1. The investigations undertaken between 2013 and 2018 have identified a variable thickness of Made Ground beneath the Site, extending to depths of between 2.8m and 6.3m below ground level. The

deepest extents of Made Ground relate to the wharf and tidal mud flats areas in the northwest of the Site that have been previously infilled (LEAP Environmental, 2017c). Made Ground beneath the Site has been recognised to be impacted with lead, benzo(a)pyrene and petroleum hydrocarbon contamination and localised asbestos contamination. According to LEAP Environmental (2021a), the Made Ground comprises clay and sand containing a variable thickness of flint, brick, chalk, ash, concrete, and clinker. Alluvial and organic odours were recorded within the Made Ground soils.

The underlying Alluvium was identified to depths between 6m and 7.4m, over the White Chalk Subgroup which extended to depths beyond that investigated as part of previous intrusive works.

4.4 Hydrology

4.4.1 Rainfall

According to the UK Centre for Ecology and Hydrology, long term annual average rainfall (SAAR6190) at the Site is 600 mm. The baseflow index (Bfihost) is 0.72 implying that a significant proportion of incident rainfall runs off at the Site rather than infiltrating to groundwater. This is consistent with the recorded geology in the vicinity of the Site which comprises low permeability alluvial deposits.

4.4.2 Surface water features

There are a number of surface watercourses and bodies within 1km of the Site. The dominant surface watercourse in the vicinity of the Site is Milton Creek, located 10m north and northeast of the Site. Milton Creek flows into the Swale Estuary approximately 2.5km of the Site. A smaller tributary of the Milton Brook flows south to north around the eastern side of the Site.

A small waterbody is located 500 m northeast of the Site adjacent to Milton Creek.

4.4.3 Licensed surface water abstractions

Data provided by the EA in May 2022 indicated that there are no licensed surface water abstractions within 1 km of the Site.

4.4.4 Surface water quality

Surface water quality monitoring has not been undertaken at the Site. Following a data request in May 2022, the EA did not supply any surface water quality monitoring data for the Site or the surrounding area.

4.4.5 Flood Zones

The majority of the Site is located in Flood Zone 3, where the probability of fluvial flooding is considered to be 1 in 100 or greater in any year. The remaining area of the Site is located in a combination of Flood Zone 1 and Flood Zone 2. The main risk for the Site is noted to be from tidal flooding. The Site is to be raised to circa 5.75m AOD to place to resulting development above the long-term predicated extreme tidal flood level.

A Flood Risk Assessment (FRA) for the Site was written in support of the planning application (WSP, 2019).

The FRA states that the proposed increase in ground levels for the development platform will manage risks associated with tidal flooding, groundwater flooding and coastal flooding. The FRA

outlines the requirements to raise the ground levels of the platform to reduce flood risk. The FRA indicates that the risk to the Site from flooding, prior to mitigation being in place is “high” for tidal flooding, “low to medium” for pluvial flooding, and “low” for groundwater flooding.

The risk of flooding from surface water at the Site is generally classified as “very low”, except for some localised areas of “low” risk located in topographic depressions in the northern and central parts of the Site. The Site is also not at risk from reservoir flooding.

There are a number of mitigation measures included within the ERA prepared for the Environmental Permit application to reduce risk from the proposed operations on the nearby hydrological receptors. Mitigation measures to be implemented at the Site include:

- Waste types to accepted at the Site will be mainly inert in nature and will not include sludges or liquids. Through the EMS, strict waste acceptance procedures will be implemented to ensure that no unsuitable waste enters the Site.
- All liquids including fuels will be provided with secondary containment.
- There will be no point-source emissions to water.

4.4.6 Discharge consents

According to the EA’s Public Register, there are twelve active discharge consents within 1km of the Site. Information regarding each discharge consent, including the reference, holder, site address and grid reference is included in Table 4.2.

Table 4.2 Active discharge consents with 1km of the Site

Discharge Consent ref.	Holder	Site Address	Site Reference	Grid
SO/K02078/004	Southern Water Services Limited	K02078, Surf. Water Sewer Sittingbourne, Surf. Water Sewer Sittingbourne, Junction Of East St. & Crown Quay, Sittingbourne, Kent, ME10 3HT	TQ9110064050	
SO/A00443/005	Southern Water Services Limited	A00443, Millway Sittingbourne Cso, Millway, Sittingbourne, Kent, ME10 2QB	TQ9057064460	
SO/AU6862/001	UK Paper	AU6862, Release Point W1, Release Point W1, Sittingbourne Paper Mill, Sittingbourne, Kent, ME10 3ET	TQ9048064300	
SO/P06791R/001	PR - Trinity Ltd	P06791R, Unit 6/3, Unit 6/3, Trinity Trading Estate, Sittingbourne, Kent	TQ9077064771	

SO/W00518/010	Southern Water Services Limited	W00518, Sittingbourne Wwtw, Gas Road, Church Marshes, Sittingbourne, Kent, ME10 2QE	TQ9107864856
SO/P05085/001	Asda Stores Ltd	P05085, Dales Foodstore, Dales Foodstore, Mill Way, Sittingbourne, Kent	TQ9084064850
SO/P05086/001	Asda Stores Ltd	P05086, Dales Foodstore, Dales Foodstore, Mill Way, Sittingbourne, Kent	TQ9101064900
SO/A00444/004	Southern Water Services Limited	A00444, St Pauls Street Sittingbourne Cso, St. Paul's Street, Sittingbourne, Kent, ME10 2LA	TQ9035064400
SO/P05084/001	Asda Stores Ltd	P05084, Dales Foodstore, Dales Foodstore, Mill Way, Sittingbourne, Kent	TQ9110064950
SO/AU7184/001	UK Paper	AU7184, Release Point W1, Release Point W1, New Thames Mill, Kemsley, Sittingbourne, Kent, ME10 2SG	TQ9030064100
SO/A00441/004	Southern Water Services Limited	A00441, East St Sittingbourne Cso, East Street, Sittingbourne, Kent, ME10 4RX	TQ9138063480
SO/P07462/001	FCC Recycling (UK) Limited	P07462, Church Marshes Waste Transfer Stn, Church Marshes Waste Transfer St, Gas Road, Milton, Sittingbourne, Kent	TQ9145065100

4.5 Hydrogeology

The hydrogeology of the Site has been derived from EA groundwater vulnerability mapping, MagicMap (Defra, 2022), previous reports completed by LEAP Environmental and as part of the Hydrogeological Risk Assessment (HRA) completed as part of the EP application (Stantec, 2022d).

4.5.1 Groundwater classifications

The majority of the Site is located on a Principal Bedrock Aquifer (the Chalk). Principal Aquifers are defined by the Environment Agency (EA) as “layers of rock or drift deposits that have high intergranular and/or fracture permeability. This means they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale”. It is noted that the top 1.5 to 9.5 m of the Chalk comprises structureless chalk which will not be effective in transmitting water and may act as a barrier to the vertical movement of water between the structured chalk and Made Ground.

The Thanet Sands in the vicinity of the Site are defined as a Secondary A Aquifer. Secondary A aquifers comprise permeable layers that can support local water supplies and may form an important source of base flow to rivers. Only the north-eastern corner of the Site is located on a Secondary A bedrock aquifer.

Alluvial deposits in the vicinity of the Site are defined as a Secondary Undifferentiated Aquifer. Secondary undifferentiated aquifers are defined where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. These aquifers were often formally defined as non-aquifer under previous definitions. The Secondary (undifferentiated) superficial drift aquifer is mapped beneath the entirety of the Site.

4.5.2 Groundwater abstractions

The Site is for the most part located within Groundwater Source Protection Zone 1 (SPZ1). The north-eastern corner part of the site is located within Groundwater Source Protection Zone 2 (SPZ2). The SPZ1 and SPZ2 are understood to be associated with abstractions from the Chalk bedrock aquifer.

As detailed on Table 4.3, there are two groundwater abstractions within 1 km of the Site and one at an unspecified distance, but within the 4 km search radius provided to the EA in May 2022. It is noted that the groundwater abstractions are from the Chalk and will be isolated from any Site contamination by the Alluvium.

Table 4.3 Licenced abstractions with 1 km

Operator	Licence	Distance, direction	Source	Purpose	Name
D. S. Smith Paper Ltd	9/40/02/0021/GR	0.9km WSW	Swale Chalk	Industrial, Commercial and Public Services	Kemsey Mill
Bennett Opie (MFG) Ltd	9/40/02/0022/GR	0.99km W	Swale Chalk	Industrial, Commercial and Public Services	Point 1 at Bennett Opie Premises
Southern Water Services Ltd	9/40/02/0237/G	Unspecified	Swale Chalk	Water Supply	Borehole at Highstead

The nearest recorded private abstractions to the Site have been identified 466m north east (paper and printing process works), 897m west (food and drink process water) and 1,363m east (drinking water) of the Site.

4.5.3 Groundwater levels and flow

Previous investigations of the Site have determined that the shallow groundwater within the Made Ground flows generally to the north, towards the Milton Creek. Groundwater monitoring and sampling was undertaken in 2019 to confirm any tidal effects on the shallow groundwater and changes to contaminant levels. Recorded groundwater levels varied between 2.03 mAOD (WS105) and 3.88 mAOD (WS202). No groundwater was recorded in boreholes WS204 and WS205 throughout the duration of the monitoring. (LEAP Environmental (2019a) give an unsaturated zone thickness under the Site of between 1.35 and 2.25 m.

The shallow groundwater has been shown to be tidally influenced to a limited extent in the northern and eastern areas of the Site and therefore is considered to be in hydraulic continuity with the surface water of Milton Creek as demonstrated by LEAP Environmental (LEAP Environmental, 2019a).

BH2, BH3 and BH4 have the well screen installed across the Made Ground, Alluvium and Chalk and could, therefore be providing a short circuit for contamination between the Made Ground / waste stockpiles and the Chalk. The borehole logs show that groundwater was struck upon penetrating the Chalk. Thus, the water levels recorded in these wells are probably representative of the Chalk, but they may not provide reliable estimates of the Chalk groundwater piezometric levels.

LEAP Environmental (LEAP Environmental, 2019a) has interpreted the deep Chalk groundwater as generally flowing west, towards the groundwater abstractions. Groundwater levels within the deep boreholes installed in the Chalk aquifer ranged between 1.40 mAOD (BH2) and 1.77 mAOD (BH4), indicating that the Chalk groundwater is confined by the Alluvium and / or Made Ground.

Based on the available data, there is no clear evidence on vertical hydraulic gradients. In November 2020, the level at WS106 (Made Ground) was 2.20 mAOD and the level at BH4 (Chalk) was 2.24 mAOD, implying an upwards hydraulic gradient. However, there are no other adjacent wells that monitor the Made Ground and Chalk with water level data on similar dates.

4.5.4 Aquifer properties

There are no site-specific aquifer properties data available at the Site.

Given the lithological composition of the Made Ground, and based on the hydraulic conductivity range for silt, sandy silts and clayey sands with various percentages of gravel, brick and chalk given in Fetter (2001) it is estimated that the hydraulic conductivity at the Site ranges between 0.01 to 10 m/d.

The Alluvium lithology suggests a hydraulic conductivity in the range of 0.0001 to 0.01 m/d might be typical.

The hydraulic conductivity of the structureless Chalk could be quite low and a range of 0.0001 to 0.01 m/d is estimated. The matrix hydraulic conductivity of the structured Chalk is likely to be low with the majority of flow occurring within fissures. Thus, the bulk hydraulic conductivity will depend on the frequency, size and connectedness of the fissures. Chalk bulk hydraulic conductivities of between 1 and 10 m/d are typical in this type of environment.

4.5.5 Groundwater quality

Made Ground beneath the Site has been recognised to be impacted with lead, benzo(a)pyrene and petroleum hydrocarbon contamination and localised asbestos contamination. Further details of the risk assessment undertaken can be found in LEAP Environmental (2019a). A remediation plan is being developed under the planning regime to mitigate against this.

4.5.6 Hydrogeological Risk Assessment

A quantitative hydrogeological risk assessment (HRA) has been completed for the Site (Stantec, 2022d). The HRA is submitted alongside this ESSD Report as part of the EP Application for deposit for recovery operations at the Site.

Strict waste acceptance procedures will be implemented at the Site to ensure that no contaminated waste types are accepted onto the Site.

The ERA has shown that there is unlikely to be a risk to groundwater and controlled water due to the nature of wastes being used in the proposed recovery operations on the Site.

4.5.7 Summary of identified pathways

The following pathways have been identified from reviewing the hydrological and hydrogeological regimes:

- Horizontal migration via Made Ground to Milton Creek. Within this pathway, contaminants may be subject to attenuation. Upon reaching Milton Creek they will be subject to instantaneous dilution.
- Vertical migration via Made Ground and Alluvium to Chalk. Within the Made Ground and Alluvium, contaminants may be subject to attenuation. Upon reaching the Chalk, they will be subject to dilution within the receiving Chalk groundwater.

4.5.8 Summary of identified receptors

The following receptors have been identified from reviewing the hydrological and hydrogeological regimes:

- Milton Creek. Contaminant discharge to Milton Creek will be subject to instantaneous dilution such that concentrations are unlikely to be discernible within a very short distance from the discharge point.
- Chalk. For hazardous substances, the compliance point is taken to be the top of the Chalk and no dilution within Chalk groundwater can be accounted for. Thus, the only mechanism to reduce hazardous substance concentrations is via attenuation within the Made Ground and Alluvium. For non-hazardous pollutants, the compliance point is taken to be the Chalk and dilution within the receiving Chalk groundwater can be accounted for. We note that no account is taken here of the structureless chalk which may actually act as quite an effective barrier to contaminant migration to the underlying structured chalk where groundwater flow occurs.

4.6 Local human population

The local human population surrounding the Site includes residential dwellings, businesses and industrial estates. The following sources included in the ERA are considered to have the potential to

cause harm to the local population. Mitigation measures are outlined to show where risk can and will be reduced.

4.6.1 Dust and Particulates

Particulate emissions can arise from the unloading and on-Site handling and placement of materials, handling of existing on-Site materials and vehicle movements on-Site and on potentially dusty roads. This can cause harm to the local population by harming human health by respiratory irritation and lead to nuisance from the deposit of dust on cars and homes etc.

An Air Quality Assessment (Phlorum, 2020) has been completed as part of the planning application for the development at the Site. While the Site is not located within an AQMA, Swale Borough Council have declared five AQMA across the Swale, two of which are located in Sittingbourne.

Pre-application advice received from the EA in March 2021 stated that the EA consider that the deposit for recovery EP application would require the submission of a Dust Management Plan due to the nature of the proposed operations and the proximity of the Site to receptors. As such, a Dust Management Plan has been completed for the Site and refers to mitigation measures that will be implemented at the Site for dust emissions (Stantec, 2022c).

Soil handling works will be conducted in accordance with prevailing EA guidance as well as relevant industry guidance, including but not limited to MAFF (2000) and DEFRA (2009).

In order to reduce any impact on local receptors, the method of handling existing on-Site soils will be through appropriate use of excavators and Site plant to ensure that the soils are only moved in small quantities at any one time allowing these to be stockpiled and compacted soon after to minimise further drying and the risk of dust generation.

Strict waste acceptance controls will ensure that only suitable materials will arrive to and be deposited at the Site, which will not include dry or dusty materials. Any rogue or dusty loads which may arrive on Site will either be rejected upon arrival or quarantined on-Site with sheeting prior to off-Site disposal. The waste types to be accepted onto the Site for the deposit for recovery operations only include those described in Table 3.1 of this ESSD report. Waste will only be accepted onto the Site in strict accordance with the waste acceptance procedures included within the Site's EMS.

Soil handling will be halted in high wind conditions to limit the risk of dust generation. It is generally considered that day-to-day activities should not generate dust as the materials to be handled on-Site will be generally cohesive with a natural moisture content.

The ERA considers that there is a "low" residual risk to nearby receptors from dust and particulates with the described mitigation measures in place.

4.6.2 Noise

Noise has the potential to cause nuisance, loss of amenity and loss of sleep to the local human population.

All of the plant and equipment kept on the Site will be maintained in accordance with the manufacturer's recommendations. This results in a low-likelihood of excessive noise from plant due to malfunction.

There is considered to be a “low” risk of nuisance to the nearby local human population as a result of noise from the Site.

4.6.3 Odour

Waste types accepted onto the Site have a low potential to give rise to odour. They are not putrescible. Strict waste acceptance procedures are applied to incoming loads to ensure that they do not contain malodourous materials.

It is considered that there will be a “very low” residual risk to the surrounding local human population from the deposit for recovery operations at the Site.

4.6.4 Mud and Debris

The local human population may be sensitive to mud and debris along the highways around the Site. The mud and debris may have been tracked out of the Site by heavy goods vehicles.

All vehicles will have travelled to the Site via the public highway, accessing the Site via Crown Quay Lane through the entrance along the western boundary of the Site. Although vehicles may track over potentially muddy surfaces when on-Site, a wheel wash facility will be maintained to clean any mud from vehicles before leaving the Site.

Surfacing of existing Site access and internal roads shall be maintained in a good state of repair and kept clean and free of mud and other dirt and debris at all times to reduce the risk of mud being tracked on-to the public highway.

Prior to exiting the Site vehicles will, if necessary, be stopped and inspected and cleaned of any material adhering to the wheels or chassis using the on-Site wheel-wash.

Should it become apparent that mud has been tracked off-Site, sweeping of relevant areas, including the public highway will be undertaken as soon as possible. A road sweeper will be employed if required. The risk from tracked mud is only likely to have an impact on highways (and associated users) in the immediate vicinity of the Site.

Materials received for recovery at the Site will not present a litter risk due to their low potential to produce litter.

The ERA considers there to be a “low” residual risk of mud and debris to cause nuisance and loss of amenity to the local population when the mitigation measures described above are implemented at the Site.

4.6.5 Pests and vermin

Materials received for recovery at the Site will not contain putrescible materials which may attract pests or vermin. Housekeeping and strict waste acceptance procedures will ensure that activities and materials that could attract vermin and pests are not undertaken or accepted onto the Site.

It is considered likely that there will be a naturally-occurring vermin population in the surrounding of the Site due to the proximity of Milton Creek to the north and other surrounding land-uses.

The ERA considers there to be a “very low” residual risk of pests and vermin causing harm and nuisance to the local population.

4.7 Habitats and protected sites

Milton Creek Local Wildlife Site has been identified 520m northeast of the Site. A scheduled monument, Murston Old Church and the Swale SSSI, SPA and Ramsar Site are located 1,000m and 1,600m northeast of the Site respectively. Due to the distance of these receptors from the Site, it is considered that they will be at a very low risk from operations at the Site. However it is considered that SPA bird species could use Milton Creek as a supporting habitat. Mitigation measures at the Site in relation to dust, noise, mud, surface water and groundwater at the Site will all be implemented to minimise the impact from Site operations to surrounding receptors.

Overall, there is considered to be a “low” risk to habitats and protected sites from the proposed operations at the Site.

5 Pollution Control Measures

5.1 Site Engineering

An outline engineering plan has not been provided. Waste materials will be placed in the development following good practice techniques.

5.2 Development

A total of 26,000m³ of suitable material has been calculated as being required in the construction of the development platform. The constructed platform should raise levels of the Site to mitigate the flood risk.

The ESSD guidance on the EA website refers to pre-settlement and post-settlement contours (Environment Agency, 2022). Settlement is only likely to be significant for sites filled with putrescible waste. Waste types to be imported at the Site will be inert and therefore the Site is not anticipated to be subject to significant settlement. Waste materials will be placed in the works following good practice techniques. A stability risk assessment has not been provided for this Site due to the scale and nature of the proposed works.

The Site will operate in accordance with strict waste acceptance procedures to ensure that only suitable waste types are brought onto the Site. The waste types to be used at the Site are included in Table 3.1 of this ESSD report.

A topographical survey following the completion of the works at the Site will be undertaken to confirm that the Site has been completed in accordance with drawings within the planning permission.

5.3 Post-closure controls

The Site will be completed in accordance with the plans included within the approved planning permission.

The likelihood of differential settlement and structural failure across the Site is considered to be low due to the waste types to be used in the recovery operation. The proposed waste types are not biodegradable and therefore it is not anticipated that there will be gas generation or significant settlement.

An EP surrender application will be made to the EA once deposit for recovery operations are completed at the Site. The recovery operations will be deemed as “complete” when the proposed ground levels shown on Indicative Development Platform Section Drawing No. 9200-EWK-002 P02 have been met.

A topographical survey will be undertaken to compare the final ground levels to the proposed ground levels.

6 Monitoring

6.1 Leachate

Leachate is generated by rainfall infiltrating through deposited waste. Due to the inert nature of the materials that will be accepted at the Site leachate generated will not contain any hazardous substances or non-hazardous pollutants throughout the lifecycle of the Site. As such, no leachate management or monitoring is proposed.

Strict waste acceptance criteria will be implemented on the Site by the implementation of the Waste Acceptance Procedures (**Appendix D**), to ensure that only appropriate waste is accepted on to the Site.

6.2 Gas

Gas monitoring is not proposed to be undertaken during the operations, due to the inert nature of the materials being deposited and their respective no gassing potential. A gas monitoring plan has therefore not been completed.

It will be confirmed that no biodegradable waste will be present in the Site through the implementation of strict waste acceptance. Waste Acceptance Procedures are in place to ensure that only waste types allowed under the Environmental Permit are accepted onto and used in the works at the Site. No putrescible wastes will be accepted on the Site as they will not be allowed under the Environmental Permit.

Any contravening waste types will be identified at the following points:

- Pre-acceptance checks on incoming soils by way of a Hazardous Waste Assessment in accordance with WM3 Technical Guidance and WAC analysis.
- By checking the accompanying Waste Transfer Note. For example, wastes that have been incorrectly coded on the Waste Transfer Note will not be accepted onto the Site.
- Visual assessment of the load prior to offloading.
- Visual checks during offloading.
- Visual checks during the placement of material.

If contravening waste types are discovered during these checks, they will be removed in accordance with the Site's Waste Rejection Procedure.

A Gas Risk Assessment has not been provided. It is considered that implementation of the Waste Acceptance Procedures on the Site will ensure that no biodegradable waste will be used in the restoration works. There is not a potential of the proposed waste types to produce gas even at depth of more than 2m.

6.3 Topographical Survey

A topographical survey of the final landform will be undertaken once the construction of the development platform has been completed.

7 Site Condition Report

EA guidance (Environment Agency, 2013) states that a Site Condition Report is '*not applicable to those parts of a permitted landfill that have permanent deposits of waste.*' Although this Site is not a landfill, it is considered that this EA Guidance is relevant. All areas within the proposed EP boundary (Stantec Drawing No. 330201595D2) will be subject to the permanent deposit of waste for the purpose of recovery and therefore a Site Condition Report is not necessary for the Site.

8 Closure

A Site Closure Plan has not been provided as part of this ESSD report. The development will be completed in accordance with the plans included within the approved planning permission. On completion of the recovery operations at the Site, a topographical survey will be undertaken to confirm that the proposed ground levels with the planning permission documents have been met.

Any such topographical survey will be provided when a surrender application is made to the EA to surrender the EP. Any deviations from the plans will be addressed within that surrender application.

It is considered highly unlikely that there will be differential settlements and structural failure of the Site due to the waste types being used in the development works. As discussed in previous sections of this ESSD report, the waste types are not biodegradable and therefore it is anticipated that there will be no significant settlement nor gas releases.

9 REFERENCES

CE Geochem, 2022. *Crown Quay Lane Laboratory Bench Scale Stabilisation Trials, Report A210806/01*, s.l.: s.n.

Defra, 2022. *Magic Map*. [Online]
Available at: <https://magic.defra.gov.uk/MagicMap.aspx>

Environment Agency, 2013. *Site condition report - guidance and templates*, s.l.: s.n.

Environment Agency, 2022. *Landfill operators: environmental permits; https://www.gov.uk/guidance/landfill-operators-environmental-permits/what-to-include-in-your-environmental-setting-and-site-design-report*, s.l.: s.n.

Keltbray Remediation Limited, 2017. *Completion Report. Report Ref. 6009.CR.LH.10022017*, s.l.: s.n.

LEAP Environmental, 2013. *LP00584 Preliminary Contamination Risk Assessment LP00584*, s.l.: s.n.

LEAP Environmental, 2014. *LP00716 Investigation Report and Asbestos Risk Assessment*, s.l.: s.n.

LEAP Environmental, 2017a. *LP01205 Phase II Geotechnical Report*, s.l.: s.n.

LEAP Environmental, 2017b. *LP01205 Material Processing Closure Summary*, s.l.: s.n.

LEAP Environmental, 2017c. *LP01205 Phase II Contamination Report*, s.l.: s.n.

LEAP Environmental, 2019a. *LP1802 Phase III Site Investigation Report*, s.l.: s.n.

LEAP Environmental, 2019b. *LP2081 Additional Investigation Letter Report*, s.l.: s.n.

LEAP Environmental, 2020. *LP2244 Crown Quay Illegal Waste Classification Report*, s.l.: s.n.

LEAP Environmental, 2021a. *LP2448 Risk Assessment for Reuse of Stockpiled Materials*, s.l.: s.n.

LEAP Environmental, 2021b. *LP2448 Detailed Quantitative Risk Assessment for Controlled Waters*, s.l.: s.n.

Phlorum, 2020. *Air Quality Assessment*, s.l.: s.n.

Stantec, 2022a. *Crown Quay: Waste Recovery Plan, Ref. 330201595R1*, s.l.: s.n.

Stantec, 2022b. *Crown Quay: Environmental Risk Assessment. Ref. 330201595R3*, s.l.: s.n.

Stantec, 2022c. *Crown Quay: Dust Management Plan*, s.l.: s.n.

Stantec, 2022d. *Crown Quay: Hydrogeological Risk Assessment. Ref. 330201595R4*, s.l.: s.n.

WSP, 2019. *Flood Risk Assessment, Ref. 49200-FRA-001*, s.l.: s.n.

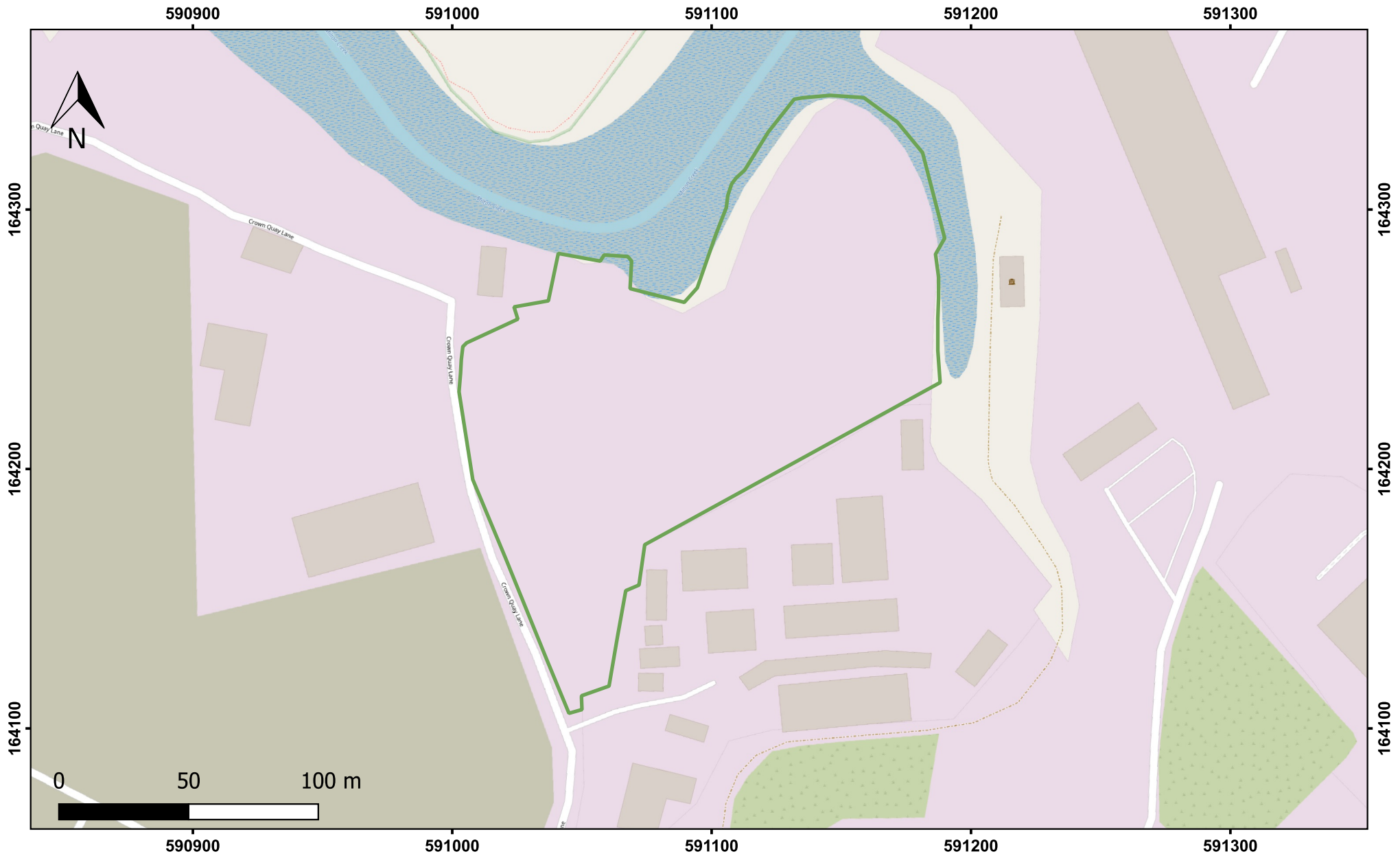


Figure 330201595D1

Title: Permit Boundary Plan

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Date August 2022

Scale 1:2,000

Original A4

Drawn Final

Revision 2

File Reference
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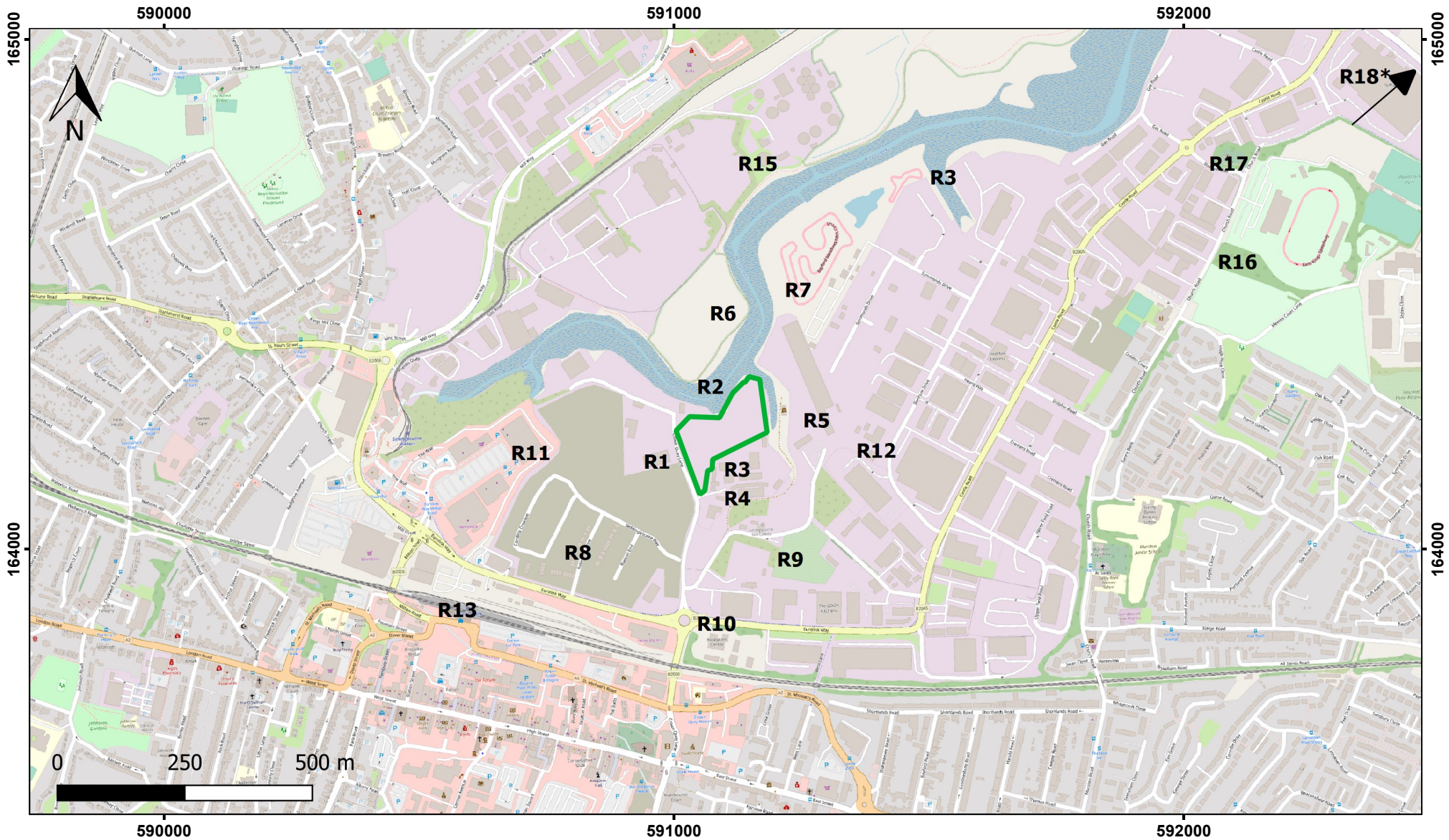


Figure 330201595D2

Title: Sensitive Receptors

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Date	2022	Drawn	GCW
Scale	1:10000	Checked	CJB
Original	A4	Revision	1
File Reference	O:\330201595\Others\330201595D2 SR.qgs}		



APPENDICES

Appendix A

Planning Details



Bellway Homes
C/O DHA Planning
Mr Matthew Woodhead
Eclipse House
Sittingbourne Road
Maidstone
Kent
ME14 3EN

22 June 2022

PLANNING DECISION NOTICE

APPLICANT:	Bellway Homes
DEVELOPMENT TYPE:	Large Maj Dwellings
APPLICATION REFERENCE:	20/503325/FULL
PROPOSAL:	Erection of 107 residential dwellings together with associated access, infrastructure, drainage, open space and landscaping.
ADDRESS:	Land East Of, Crown Quay Lane, Sittingbourne, Kent, ME10 3ST

The Council hereby **GRANTS** permission/consent for the proposal referred to above subject to the following Condition(s):

- 1) The development to which this permission relates must be begun not later than the expiration of five years beginning with the date on which the permission is granted.

Reason: In pursuance of Section 91 of the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004.
 - 2) No development beyond the construction of foundations shall take place until details in the form of samples of external finishing materials to be used in the construction of the
-

MKPS – Working in Partnership with: Swale Borough Council

Please Note: All planning related correspondence for SBC should be sent to:

Mid Kent Planning Support, Maidstone House, King Street, Maidstone ME15 6JQ

Email: planningsupport@midkent.gov.uk

Access planning services online at: www.swale.gov.uk or submit an application via www.planningportal.co.uk

development hereby approved have been submitted to and approved in writing by the Local Planning Authority, and works shall be implemented in accordance with the approved details.

Reason: In the interest of visual amenity.

- 3) The development shall be carried out strictly in accordance with the following approved plans - 051904-BEL-K-01D, 02D, 03C, 04C, 05C, 06, 07B, SS01A, SS02B, SS03B, T01, T02, T03, T04, T05, T06A, T07A, T08, T09, T10, T11; 051904-SEC01A, 02A; PO-2B-2S-TC-E1, E2, E3; PO-2B-2S-P1, P2; PO-2B-2S-TC-M-E2, PO-2B-2S-M-P1; SA-2B-2SC-TC-M-E1, SA-2B-2SC-M-P3, SAI-2B-2SC-TC-E1, SAI-2B-2SC-P3, SAI-2B-2SC-TC-M-E1, SAI-2B-2SC-M-P3; SAIV-2B-2SC-TC-M-E1, SAIV-2B-2SC-M-P3, BM-3B-2S-TC-E1, BM-3B-2S-P2, BM-3B-2S-TC-M-E1, BM-3B-2S-M-P2; TU-3B-2S-TC-E1, TU-3B-2S-TC-E2, TU-3B-2S-P1B, TU-3B-2S-TC-M-E1, TU-3B-2S-TC-M-E2, TU-3B-2S-M-P1B, TU-3B-2S-TC-M-E3, TU-3B-2S-M-P2; QU-3B-2S-TC-E1, QU-3B-2S-TC-E2, QU-3B-2S-P1; GI-4B-3S-TC-E1, GI-4B-3S-P2, GI-4B-3S-TC-E2, GI-4B-3S-P3; NOA-4S-TC01-E1, NOA-TC-1-P1, NOA-TC01-P2, NOA-TC01-P3; BSA-3S-TC01-E1, BSA-TC01-P1, BSA-TC01-P2, BSA-TC01-P3; ARA-3S-TC01-E1A, ARA-TC01-P1A, ARA-TC01-P2A, ARA-TC01-P3A; HAA-3S-TC01-E1A, HAA-TC01-P1A, HAA-TC01-P2A, HAA-TC01-P3A; WRA-3S-TC01-E1A, WRA-TC01-P1A, WRA-TC01-P2A, WRA-TC01-P3A, 051904-SH01, SH02, SH03

Reason: To accord with the terms of the application and in the interests of proper planning.

- 4) Notwithstanding the submitted details, no development shall take place beyond the construction of foundations until a scheme to mitigate the dwellings from noise impacts has been submitted to and approved in writing by the Local planning Authority. The scheme shall include a modelled sound plan based on the noise monitored data contained in the Environmental Noise Survey and Acoustic Design Statement Report by Hann Tucker Associates dated March 2021, as well as a detailed scheme of measures and evidence to their effectiveness to mitigate noises both internally and within external amenity areas, including full details of the location, height and specification of acoustic fencing to be installed. The works specified in the approved scheme shall then be carried out in accordance with the approved details prior to occupation of the dwellings and retained thereafter.

Reason: In the interests of residential amenity and to protect the reasonable operation of neighbouring commercial uses.

- 5) Before development commences, details shall be submitted to and approved in writing by the local planning authority for the installation of fixed telecommunication infrastructure and High-Speed Fibre Optic (minimal internal speed of 1000mb) connections to multi point destinations and all buildings including residential, commercial and community. The infrastructure shall be installed in accordance with the approved details during the construction of the development, capable of connection to commercial broadband providers and maintained in accordance with approved details.

Reason: To ensure suitable infrastructure and utility connections.

- 6) No development shall take place beyond the construction of foundations until a detailed scheme of hard landscaping works has been submitted to and approved in writing by the Local Planning Authority. Such scheme shall include -
- o Details of the materials to be used for the hard surfaces within the development.
 - o Details of all fencing, walls and enclosures, which shall include secure gates and fencing to be installed to restrict access to parking spaces at the rear of units 75 and 76, provision of railings to enclose the car park area between units 1-11 and plot 29, and measures to restrict access to the area of land rear of plots 77-107.
 - o Details of the measures to restrict access to the cycle / footpath by unauthorised vehicles, and which should include measures to restrict access at each end of the path.
 - o Details of benches and bins to be provided within the open space.
 - o Provision of a heritage interpretation board within the open space to provide historical information on the former use of the site and surrounding area.

Reason: In the interests of visual amenity and crime prevention.

- 7) Notwithstanding the provisions of Class A, Part 2, Schedule 2 to the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) no gates, fences, walls or other means of enclosure shall be erected or provided in advance of any wall or any dwelling fronting on a highway, other than as approved under this planning permission.

Reason: In the interests of visual amenity.

- 8) No development shall be commenced until details of existing and proposed site levels and finished floor levels have been submitted to and approved in writing by the Local Planning Authority. The details shall include cross-sectional drawings through the site and shall demonstrate how the site levels will be designed and managed at the site boundaries. The development shall be carried out in accordance with the approved details.

Reason: In order to secure a satisfactory form of development having regard to the sloping nature of the site.

Construction

- 9) No development shall take place, including any works of demolition, until a Construction Method Statement and Traffic Management Plan has been submitted to, and approved in writing by, the Local Planning Authority. The approved Statement shall be adhered to throughout the construction period. The Statement shall provide for:
- i the parking of vehicles of site operatives and visitors
 - ii loading and unloading of plant and materials.
 - iii Recording the condition of the immediate local highway prior to commencement, and measures to make good any damage attributed to construction traffic
 - iv storage of plant and materials used in constructing the development.
 - v the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate
 - vi wheel washing facilities
 - vii measures to control the emission of dust and dirt during construction.
 - viii a scheme for recycling/disposing of waste resulting from demolition and construction works.

iv Routing and timing of construction traffic

Reason: In the interests of the amenities of the area and highway safety

- 10) Construction of the development shall take place in strict accordance with the measures identified in Sections 5.5, 5.6 and 5.7 of the Report to Inform a Habitats Regulations Assessment and Appropriate Assessment by Aspect Ecology dated December 2020.

Reason: To ensure that wildlife and ecologically important species are protected during construction.

Highways

- 11) No dwellings on the development hereby permitted shall be occupied until a contract has been let to undertake highway improvement works to Key Street roundabout in accordance with the HIF-funded scheme (or as otherwise amended) to be delivered by Kent County Council.

Reason: To improve the capacity and operation of the Key Street roundabout in order to accommodate development growth, in the interests of highways safety.

- 12) No dwellings on the development hereby permitted shall be occupied until the opening to the public of a Roads Investment Strategy scheme at M2 Junction 5 (or scheme to the same effect that may be agreed in writing by the local planning authority who shall consult Highways England).

Reason: To ensure that the A249 Trunk Road and M2 Junction 5 continue to be an effective part of the national system of routes for through traffic in accordance with section 10 of the Highways Act 1980 and to satisfy the reasonable requirements of road safety.

- 13) No development beyond the construction of foundations shall take place until a detailed scheme of improvements to Crown Quay Lane has been submitted to and approved in writing by the Local Planning Authority. The scheme shall incorporate a footway, landscaping and tree planting and provision of parking bays, as generally shown on the off-site works drawing 14121-H-04 Rev P1. The approved scheme shall be completed prior to first occupation of the dwellings hereby permitted.

Reason: In the interests of highways safety and to improve the road environment in accordance with the Local Plan.

- 14) Prior to first occupation of the dwellings hereby permitted the developer shall submit a Traffic Regulation Order application to secure a package of suitable traffic restrictions for the roads within the development hereby approved and on Crown Quay Lane.

Reason: To minimise anti-social parking in the interest of local residential amenity.

- 15) Prior to the occupation of the dwellings hereby approved, the proposed estate road, footways, street lighting, sewers, drains, retaining walls, service routes, surface water outfall, vehicle overhang margins, embankments, visibility splays, access, carriage gradients as appropriate, shall be constructed and laid out in accordance with details to

be submitted and approved by the Local Planning Authority in writing before their construction begins. For this purpose, plans and sections indicating as appropriate the design, layout, levels, gradients, materials, and method of construction shall be submitted to the Local Planning Authority.

Reason: To ensure that the roads are constructed and laid out in a satisfactory manner, in the interest of Highway Safety

- 16) Before the first occupation of a dwelling / premises the following works between that dwelling / premises and the adopted highway shall be completed as follows:
- (A) Footways and/or footpaths shall be completed, with the exception of the wearing course;
 - (B) Carriageways completed, with the exception of the wearing course, including the provision of a turning facility beyond the dwelling together with related:
 - (1) highway drainage, including off-site works,
 - (2) junction visibility splays,
 - (3) street lighting, street nameplates and highway structures if any.

Reason: In the interests of highway safety.

- 17) The areas shown on the approved plan for car parking (including visitor spaces) shall be provided, surfaced and drained prior to first occupation of the dwellings and kept available for such use at all times. No external alterations to the car ports or any other permanent development, whether permitted by the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (or any order revoking or re-enacting that Order) or not, shall be carried out on the land so shown or in such a position as to preclude vehicular access thereto; such land and access thereto shall be provided prior to the occupation of the dwelling(s) hereby permitted.

Reason: Development without adequate provision for the parking or garaging of cars is likely to lead to car parking inconvenient to other road users.

- 18) No dwelling shall be occupied until a detailed scheme for electric vehicle charging has been submitted to and approved in writing by the Local Planning Authority, and such scheme shall include -
- a) Active electric vehicle charging points to be provided for individual dwellings as identified on the supporting planning layout drawing.
 - b) A minimum of two active electric vehicle charging points to be provided within the visitor parking spaces.
 - c) A minimum of four active electric vehicle charging points to be provided within the unallocated resident parking spaces, and details of passive charging provision for remaining unallocated resident parking spaces.
 - d) A strategy for the operation, management and maintenance of any charge points that are not within a private dwelling plot.

The scheme shall include details of the charge point specification, which shall be designed to utilise best available technology. No dwelling shall be occupied until the electric vehicle charging point for that dwelling or building has been installed in accordance with the approved details.

- 19) No dwelling/building shall be occupied or the approved use commenced until space has been laid out within the site in accordance with the approved plans for cycles to be securely parked.

Reason: To ensure the provision and retention of adequate off-street parking facilities for cycles in the interests of sustainable development and promoting cycle visits.

- 20) Pedestrian visibility splays 2 m x 2 m with no obstruction over 0.6 m above the access footway level shall be provided at each private vehicular access prior to it being brought into use and shall be subsequently maintained.

Reason: In the interests of highway safety.

Sustainability and Air Quality

- 21) The dwellings hereby approved in shall be constructed and tested to achieve the following measure:

At least a 20% reduction in Dwelling Emission Rate compared to the Target Emission Rates as required under Part L1A of the Building Regulations 2013 (as amended).

No development shall take place until details of the measures to be undertaken to secure compliance with this condition have been submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the approved details.

Reason: In the interest of promoting energy efficiency and sustainable development.

- 22) No gas boilers shall be fitted in the dwellings hereby permitted other than a low emission boiler of a minimum standard of <40mgNOx/kWh. No dwellings shall be occupied until details of the boilers to be installed have been submitted to and approved in writing by the Local Planning Authority, and the development shall be carried out in accordance with such details.

Reason: In the interests of minimizing air quality impacts.

- 23) The proposed residential development hereby permitted shall be designed to achieve a water consumption rate of no more than 110 litres per person per day, and no residential unit(s) shall be occupied until details of the measures used to achieve the rate for that unit(s) have been submitted to and approved in writing by the Local Planning Authority.

Reason: To reduce demands on water consumption within a water stressed area.

Flooding, Drainage and Contamination

- 24) The development shall be carried out in accordance with the submitted flood risk assessment (ref 70049200, dated December 2019) and the following mitigation measures it details:

- Minimum finished floor levels of living units: 6.05m AOD
- Minimum finished floor levels of sleeping units: 6.35m AOD.

Reason To reduce the risk of flooding to the proposed development and future occupants.

- 25) No development approved by this permission shall be commenced prior to a contaminated land assessment and remediation strategy to deal with the risks associated with contamination of the site in respect of the development hereby permitted, has been submitted to, and approved in writing by, the local planning authority. This strategy will include the following components:
- 1) A further phase II investigation in areas that were not accessible during the initial phase II investigation, including further gas monitoring and gas risk assessment which is also prescribed in the initial Phase II Contaminated Land report.
 - 2) An updated Phase II Contaminated Land report detailing all investigative works and sampling on site, together with the results of analyses, risk assessment to any receptors and a proposed remediation strategy which shall be of such a nature as to render harmless the identified contamination given the proposed end-use of the site and surrounding environment, including any controlled waters.
 - 3) The results of the site investigation and the detailed risk assessment referred to in (1) and (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
 - 4) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action. Any changes to these components require the written consent of the local planning authority. The scheme shall be implemented as approved. Part 1 and Part 2 for this condition were met by the abovementioned Phase 1 and Phase 2 reports.

Reason: To ensure that any contaminated land is adequately dealt with and that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution in line with paragraph 170 of the National Planning Policy Framework.

- 26) Prior to any part of the permitted development being occupied, a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to, and approved in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Reason: To ensure that the site does not pose any further risk to the water environment by demonstrating that the requirements of the approved verification plan have been met and that remediation of the site is complete. This is in line with paragraph 170 of the National Planning Policy Framework.

- 27) The development hereby permitted shall not commence until a monitoring and maintenance plan in respect of contamination, including a timetable of monitoring and submission of reports to the local planning authority, has been submitted to, and approved in writing by, the local planning authority. Reports as specified in the approved plan, including details of any necessary contingency action arising from the monitoring, shall be submitted to, and approved in writing by, the local planning authority.

Reason: To ensure that the site does not pose any further risk to the water environment by managing any ongoing contamination issues and completing all necessary long-term remediation measures. This is in line with paragraph 170 of the National Planning Policy Framework.

- 28) If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the local planning authority. The remediation strategy shall be implemented as approved.

Reason: To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site. This is in line with paragraph 170 of the National Planning Policy Framework.

- 29) No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the local planning authority. Any proposals for such systems must be supported by an assessment of the risks to controlled waters. The development shall be carried out in accordance with the approved details.

Reason: To ensure that the development does not contribute to, and is not put at unacceptable risk from or adversely affected by, unacceptable levels of water pollution caused by mobilised contaminants. This is in line with paragraph 170 of the National Planning Policy Framework.

- 30) The development hereby permitted shall not commence until a detailed sustainable surface water drainage scheme for the site has been submitted to and approved in writing by the local planning authority. The detailed drainage scheme shall be based upon the Flood Risk Assessment by WSP submitted with the application, and shall demonstrate that the surface water generated by this development (for all rainfall durations and intensities up to and including the climate change adjusted critical 100-year storm) can be accommodated and disposed of [within the curtilage of the site] without increase to flood risk on or off-site. The drainage scheme shall also demonstrate (with reference to published guidance):

- that silt and pollutants resulting from the site use can be adequately managed to ensure there is no pollution risk to receiving waters.
- appropriate operational, maintenance and access requirements for each drainage feature or SuDS component are adequately considered, including any proposed arrangements for future adoption by any public body or statutory undertaker.

The drainage scheme shall be implemented in accordance with the approved details.

Reason: To ensure the development is served by satisfactory arrangements for the disposal of surface water and to ensure that the development does not exacerbate the risk of on/off site flooding.

- 31) No building on any phase (or within an agreed implementation schedule) of the development hereby permitted shall be occupied until a Verification Report, pertaining to the surface water drainage system and prepared by a suitably competent person, has

been submitted to and approved by the Local Planning Authority. The Report shall contain information and evidence (including photographs) of details and locations of inlets, outlets and control structures; full as built drawings; information pertinent to the installation of those items identified on the critical drainage assets drawing; and, the submission of an operation and maintenance manual for the sustainable drainage scheme as constructed.

Reason: To ensure that flood risks from development to the future users of the land and neighbouring land are minimised, together with those risks to controlled waters, property and ecological systems, and to ensure that the development as constructed is compliant with and subsequently maintained pursuant to the requirements of paragraph 165 of the National Planning Policy Framework.

- 32) No development shall be commenced until details of the proposed means of foul water sewerage disposal have been submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Reason: To ensure suitable provision of foul drainage infrastructure

Landscaping and Ecology

- 33) No development shall take place (including any ground works, site or vegetation clearance) until a method statement for biodiversity has been submitted to and approved in writing by the local planning authority. The content of the method statement shall include the:
- a) Purpose and objectives for the proposed works:
 - b) Detailed design(s) and/or working method(s) necessary to achieve stated objectives including any required updated surveys.
 - c) Measures for the protection of retained habitats as shown on the Habitats and Ecological Features Plan by Aspect Ecology dated April 2021.
 - d) Extent and location of proposed works, including the identification of a suitable receptor site, shown on appropriate scale maps and plans.
 - e) Timetable for implementation, demonstrating that works are aligned with the proposed phasing of construction.
 - f) Persons responsible for implementing the works, including times during construction when specialist ecologists need to be present on site to undertake / oversee works.
 - g) Use of protective fences, exclusion barriers and warning signs.
 - h) Initial aftercare and long-term maintenance (where relevant); and,
 - i) Disposal of any wastes for implementing work.

The works shall be carried out in accordance with the approved details and shall be retained in that manner thereafter.

Reason: In the interests of biodiversity

- 34) A Landscape and Ecological Management Plan (LEMP) shall be submitted to, and be approved in writing by, the local planning authority prior to occupation of the development. The content of the LEMP shall demonstrate that its implementing appropriate management to achieve a Biodiversity Net Gain as set out in the Technical Briefing Note by Aspect Ecology dated 30/04/21 and must include the following:

- a) Description and evaluation of features to be managed.
- b) Ecological trends and constraints on site that might influence management.
- c) Aims and objectives of management.
- d) Appropriate management options for achieving aims and objectives.
- e) Prescriptions for management actions, together with a plan of management compartments.
- f) Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).
- g) Details of the body or organisation responsible for implementation of the plan.
- h) Ongoing monitoring and remedial measures.

The LEMP shall also include details of the legal and funding mechanism(s) by which the long-term implementation of the plan will be secured by the developer with the management body(ies) responsible for its delivery. The plan shall also set out (where the results from monitoring show that conservation aims and objectives of the LEMP are not being met) how contingencies and/or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally approved scheme. The approved plan will be implemented in accordance with the approved details.

Reason: In the interests of biodiversity

- 35) No development beyond the construction of foundations shall take place until full details of soft landscape works have been submitted to and approved in writing by the Local Planning Authority. These details shall include existing trees, shrubs and other features, planting schedules of plants, noting species (which shall be native species and of a type that will encourage wildlife and biodiversity), plant sizes and numbers where appropriate, and an implementation programme. The details shall include a scheme of landscaping on the land to the rear of units 77-107 which shall be designed to provide a landscaped buffer to the adjacent commercial use, and details of the use of species to deter access between private and public spaces.

Reason: In the interests of the visual amenities of the area and encouraging wildlife and biodiversity.

- 36) All hard and soft landscape works shall be carried out in accordance with the approved details. The works shall be carried out prior to the occupation of any part of the development or in accordance with the programme agreed in writing with the Local Planning Authority.

Reason: In the interests of the visual amenities of the area and encouraging wildlife and biodiversity.

- 37) Upon completion of the approved landscaping scheme (other than for the areas of public space and communal landscaping), any trees or shrubs that are removed, dying, being severely damaged or becoming seriously diseased within five years of planting shall be replaced with trees or shrubs of such size and species as may be agreed in writing with the Local Planning Authority, and within whatever planting season is agreed.

Reason: In the interests of the visual amenities of the area and encouraging wildlife and biodiversity.

- 38) No development beyond the construction of foundations shall take place until details of external lighting for the development, have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be designed in accordance with recommendations from the Bat Conservation trust and the Institute of Lighting Professionals, titled Guidance Note 8 Bats and Artificial Lighting. The development shall be carried out in accordance with the approved details.

Reason: In the interests of biodiversity and crime prevention

- 39) No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority.

Reason: To ensure that features of archaeological interest are properly examined and recorded.

Informative(s):

- 1) The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:
- on or within 8 metres of a main river (16 metres if tidal)
 - on or within 8 metres of a flood defence structure or culvert (16 metres if tidal)
 - on or within 16 metres of a sea defence
 - involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
 - in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it is a tidal main river) and you do not already have planning permission.

For further guidance please visit

<https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact the EA National Customer Contact Centre on 03702 422 549.

- 2) All Electric Vehicle chargers provided for homeowners in residential developments must be provided to Mode 3 standard (providing up to 7kw) and SMART (enabling Wifi connection). Approved models are shown on the Office for Low Emission Vehicles Homecharge Scheme approved chargepoint model list:
<https://www.gov.uk/government/publications/electric-vehicle-homecharge-scheme-approvedchargepoint-model-list>
- 3) It is the responsibility of the applicant to ensure , before the development hereby approved is commenced, that all necessary highway approvals and consents where required are obtained and that the limits of highway boundary are clearly established in order to avoid any enforcement action being taken by the Highway Authority.
- 4) Across the county there are pieces of land next to private homes and gardens that do not look like roads or pavements but are actually part of the road. This is called 'highway land'. Some of this land is owned by The Kent County Council (KCC) whilst some are owned by third party owners. Irrespective of the ownership, this land may have 'highway rights' over the topsoil. Information about how to clarify the highway boundary can be

found at <https://www.kent.gov.uk/roads-and-travel/what-we-look-after/highway-land/highway-boundary-enquiries>

- 5) The applicant must also ensure that the details shown on the approved plans agree in every aspect with those approved under such legislation and common law. It is therefore important for the applicant to contact KCC Highways and Transportation to progress this aspect of the works prior to commencement on site.

The Council's approach to this application:

In accordance with paragraph 38 of the National Planning Policy Framework (NPPF), July 2021 the Council takes a positive and proactive approach to development proposals focused on solutions. We work with applicants/agents in a positive and creative way by offering a pre-application advice service, where possible, suggesting solutions to secure a successful outcome and as appropriate, updating applicants / agents of any issues that may arise in the processing of their application.

In this instance:

The application was considered by the Planning Committee where the applicant/agent had the opportunity to speak to the Committee and promote the application.

If your decision includes conditions that need to be discharged, please be advised that there is a separate application process to discharge them which includes a fee. For more information on this please visit https://www.planningportal.co.uk/info/200126/applications/60/consent_types/12 and to submit an application for approval of details (discharge conditions) please use this link <https://www.planningportal.co.uk/applications>



Emma Wiggins
Director Regeneration
Swale Borough Council

Please be advised that irrespective of whether your proposal requires planning permission or not, it may still require Building Regulation Approval. For more information on this please visit our website <https://www.swale.gov.uk/building-control>

IMPORTANT - YOUR ATTENTION IS DRAWN TO THE ATTACHED NOTES

NOTIFICATION TO APPLICANT FOLLOWING REFUSAL OF PERMISSION OR GRANT OF PERMISSION SUBJECT TO CONDITIONS

This decision does not give approval or consent that may be required under any act, bylaw, order or regulation other than Section 57 of the Town and Country Planning Act 1990.

Appeals to the Secretary of State

If you are aggrieved by the decision of your local planning authority (LPA) to refuse permission for the proposed development, or to grant it subject to Conditions, then you can appeal to the Secretary of State (SoS) under Section 78 of the Town and Country Planning Act 1990. **Please see “Development Type” on page 1 of the decision notice to identify which type of appeal is relevant.**

- If this is a decision on a planning application relating to the same or substantially the same land and development as is already the subject of an enforcement notice and if you want to appeal against the LPA's decision on your application, then you must do so within **28 days** of the date of this notice.
- If an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against the LPA's decision on your application, then you must do so within **28 days** of the date of service of the enforcement notice, or within **6 months [12 weeks** in the case of a **householder** or **minor commercial** application decision] of the date of this notice, whichever period expires earlier.
- If this is a decision to refuse planning permission for a **Householder** application or a **Minor Commercial** application and you want to appeal the LPA's decision, or any of the conditions imposed, then you must do so within **12 weeks** of the date of this notice.
- In all other cases, you will need to submit your appeal against the LPA's decision, or any of the conditions imposed, within **6 months** of the date of this notice.

Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>.

If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.

If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority (planningappeals@midkent.gov.uk) and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. [Further details are on GOV.UK.](#)

The SoS can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

The SoS need not consider an appeal if it seems to the SoS that the LPA could not have granted planning permission for the proposed development or could not have granted it without

the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

Appendix B

Pre-Application Correspondence

RvD Advice Form

Name of permitting officer (RvD assessor)	Mark Oxford
EPR and EAWML References	EPR/KB3005XD/A001 EAWML 407450
Name of the proposed operator	Keltbray Ltd WRP written by Stantec UK Ltd
Name of the site	Crown Quay Lane, Sittingbourne
Document reference for the submitted waste recovery plan	Crown Quay Lane, Sittingbourne: Waste Recovery Plan

Consideration of Recovery

Is the waste being used as a substitute for non-waste material?

Has the applicant confirmed that if they could not use waste, they would complete the proposed works in the same way with non-waste materials?

Our guidance includes some factors they can use to show they would carry out the scheme using non-waste:

- 1. Financial gain by using non-waste materials**
- 2. Funding to use non-waste (not-for-profit organisations)**
- 3. Obligations to do the works**

They must provide a clear justification, with evidence, to demonstrate that they would do this.

Financial gain.

Section 4.3.2 covers the cost of using virgin 'unscreened topsoil' as a financially viable option, based on the import costs for this being estimated at £2,613,000 and the financial gain on this project as that on the housing development which will follow the WRP works. This has been estimated at £22,100,000.

The applicant has provided evidence to suggest the current housing market, provided in Appendix E of the updated WRP received 24/2/21. This is based on the neighbouring site house prices, calculated on £ per square foot (average).

The costs for the virgin material only includes the immediate import, and not any other costs, such as haulage, work, fuel etc. Updated WRP received 24/2/21 lists loads and costs to import the 26,000m³

The estimated cost of removal of the waste has been included within the updated WRP received 24/2/21 in section 4.3.2.

Note: this section lists £250 per load haulage and calculates total cost per load using £150 equalling £500 per load. Although this is inconsistent the increased cost (using £250 therefore £600 per load) this would not have a significant impact on the costs compared to the proposed revenue. However this should be amended for the permit application

No evidence of funding for using non-waste has been supplied.

At present there is no specific obligation to complete these works. , Planning permission has not yet been granted. Updated WRP received 24/2/21 states Bellway planning proposal are on the agenda for the April meeting.

Is the material suitable for its intended use?

Has the applicant listed the waste types that they intend to use with an appropriate EWC code and description?

The waste types must be physically, chemically and biologically suitable for the works they are proposing (see Appendix 2).

Proposed wastes are listed in section 3.2 table 3.1. These wastes relate to the import of 26,000m³, described as '*imported engineering materials*' in section 3.2.

Note that it is also stated that 14,000m³ of onsite material is also to be used for the works. This waste is '*understood to comprise crushed concrete, brick, soil and stones*' and may be used in the works

This material 'would be best described as EWC codes 17 01 01 (concrete), 17 05 04 (soil and stones) and potentially 19 12 12 (other wastes from mechanical treatment)' including mixtures of materials restricted to soil substitutes and aggregates.

The reasoning for using this material is as follows.

The material is defined as 'waste' purely due to its circumstance. In terms of physical characteristics, it is therefore considered that this waste would be identical to comparable non waste equivalents.

We therefore accept that the wastes described in table 3.1 and listed in Appendix 2 of this form are suitable in principle for their intended use.

Note:

Please note that further assessment of the proposed waste types based on the sensitivity of the site location is carried out as part of the permit determination. 'Recovery vs. Disposal' assessment considers what waste types *may* be suitable, not what waste types *will* be deemed suitable following technical assessment.

Section 4.4 Suitability of Materials - An enquiry was carried out on the waste in 2013 by Leap Environmental Limited (Leap) (Leap Environmental Ltd, 2013). Leap found that the waste contained contravening materials e.g. metal, plastic, glass and visually identifiable asbestos.

Testing of this material has been provided within Appendix D of the WRP.

Although you have provided testing data on this material this has not been assessed under this review of your WRP. Whilst it may be suitable in principle, further assessment may be needed under a full permit determination as to its site-specific suitability. This will need to show that the waste will not cause or increase the risk to human health or environmental pollution. This material will also need to conform to the Waste Acceptance Criteria ("WAC") and be pass the Waste Acceptance Procedures ("WAP") for the site. This material will be required to be included in waste returns for the site.

What is the purpose of the works?

Has the applicant clearly described the function of their proposed scheme and shown that they are carrying it out to meet a genuine need?

They must explain the need or driver for this function and provide evidence to demonstrate that the function will be delivered by the proposed works, and the extent of the resultant benefits.

Partially.

The purpose of the works is to raise the land at the Crown Quay site to be compliant with comments received during the planning permission application process for the housing development, which is to have the minimum living levels at 6.05 AOD to reduce/minimise the risk of flooding. The waste would form a 'platform' for the development to continue.

This is covered within sections 3 and 4 of the WRP, and the requirement for the land raise provided from consultations to reduce the flood risk of the new residential buildings.

If planning permission is granted, it is likely to include a condition to raise the land. This would support the need for the function to be delivered and that this work will need to be done to allow the operator to develop in full and realise the financial gain from the site, i.e. the eventual sale of property.

Is the minimum amount of waste being used to deliver the function?

Has the applicant confirmed, and provided justification with evidence, that they only intend to use the minimum amount of waste necessary to carry out the intended function that would otherwise be provided by non-waste? Have they considered alternative proposals that could use a smaller amount of waste to achieve the same function?

They must include the quantity of waste they intend to use in volume (m³) and tonnage and detail how they have calculated that figure, plus provide plans and cross-sections showing original and planned final levels.

Yes.

Section 3.1 discusses the requirement to increase the land levels by 1.36-1.95m. Section 1.1 references 14,000m³ of onsite material and 12,000m³, totalling 26,000m³. The increase in land levels are based on comments from the Environment Agency relating to the housing development Ref. 20/503325/FULL.

Section 4.3.2 provides an estimate on tonnage for non-waste and its compaction to achieve 26,000m³ but this does not appear present for waste.

Although the specific calculation has not been presented section 4.2.1 states the site is 15.8ha and from 4.2.2 the average land increase will be 1.65m this closely supports the amount of 26,000m³.

Note: This is based on the land level from the flood risk assessment and may be subject to change upon approval of the planning permission or a Flood Risk Activity Permit ("FRAP") if required. It can be considered suitable at present to demonstrate a minimum amount required in the WRP received 24/02/2021.

Will the proposal meet a quality standard?

Has the applicant demonstrated how the scheme will be designed and constructed to be fit for purpose?

They must describe the construction methods and/or standards that will be followed to ensure that the **proposed operation will be finished to an appropriate standard, so that the function will be delivered**

Yes.

The scheme is only shown via the topographical survey images in Appendix A that the lay of the land will be flat and level, to approximately 6 m AOD. The rest of the WRP does not appear to state a standard of the works. However the land raise will have to be suitable for the housing development.

The only reference is section 4.2.3. However, it is considered that the preceding sections outline a compelling argument as to why Bellway would be legally compelled to complete the overall development and further, to development the platform to the specifications and standards outlined in this WRP.

This appears to be reliant upon the requirement of the ground level for the development. However, as this planning permission has not be granted for the development, it is unclear if this would be sufficient.

Due to the site location, additional standards may be imposed by Planning Permission and/or a Flood Risk Activity Permit. Significant alterations to the WRP will have to be reassessed.

Note: that the development is adjacent to a tidal creek, Milton creek, which has a flood asset, high ground. This will likely require a Flood Risk Activity Permit ("FRAP")

Final design might be subject to review and therefore change during determination of the planning permission application. If changes are made any future application will need to consider this.

Additional comments

ADVICE: NOT YET SATISFIED TO AGREE RECOVERY

We do not agree with the assessment that this operation is a recovery activity. Not enough evidence has been provided to support the case that the proposed activity is a recovery operation and therefore we cannot confirm that this is a recovery operation.

The operator has demonstrated that the waste, only temporarily stockpiled on site and not placed, could if required be removed for disposal and the scheme would still be able to demonstrate financial gain. They have been able to demonstrate that the scheme, if permitted as anticipated, could result in financial gain.

However, other considerations which may have a bearing on the outcome cannot be made due to the current lack of Planning Permission. Additional or altered requirements may need to be implemented into the WRP if Planning Permission is granted for the site.

There may be additional or altered requirements from a Flood Risk Activity Permit due to the proximity to a flood defence.

If any amendments are required from the above considerations, or others, that will cause a significant change to the premise of the WRP received 24/02/2021, re-

assessment will be required. If the planning permission can be submitted as proposed in this plan a limited further assessment will be required to ensure what is anticipated in the current plan is that which is permitted by planning.

Note regarding wastes stored on site being proposed for the scheme. This material is considered suitable in principle prior to assessment of risk to human health or environmental pollution based on the remediation data provided. This will be assessed during the determination stage of a permit application.

Appendix 1

Supporting evidence

RFI email received on 24/02/2021 at 12:52.

Appendix 2

Waste types to be deposited

Waste code	Description	Typical uses and criteria (see key)
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS	
01 01	wastes from mineral excavation	
01 01 02	wastes from non-metalliferous excavation	A, B, E, F
01 04	wastes from physical and chemical processing of non-metalliferous minerals	
01 04 09	waste sand and clays	A, B, E, F
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
17 01	concrete, bricks, tiles and ceramics	
17 01 01	concrete	A, B, D
17 01 02	bricks	A, B, D
17 01 03	tiles and ceramics	A, B, D
17 01 07	mixtures of concrete, bricks, tiles and ceramics	A, B, D
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil	
17 05 04	soil and stones	A, B, E, F ³
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (soil substitutes and aggregates other than those containing dangerous substances only)	E, F ⁹
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	
20 02	garden and park wastes (including cemetery waste)	
20 02 02	soil and stones	A, B, E, F

Key to table codes

- A. Structural fill for building, stabilising ramps, drainage, road construction.
- B. Construction of noise bunds, screening bunds, flood defence bunds, containment bunds, golf courses. Landscaping associated with construction work. Restoration of mineral workings. General fill material.
- C. Surface treatment of roads, tracks etc. Drainage.
- D. Road/track construction and repair, hard surfacing, car parks etc.
- E. Agricultural improvement schemes.
- F. Ecological improvements, wetland schemes, lakes

1. Only shellfish shells from which the soft tissue or flesh has been removed.
2. The PFA/FBA/IBA must meet the relevant civil engineering standards for use.
3. If non inert, or where there may be contamination, you must sample and analyse the waste. You may need to carry out an environmental risk assessment to determine if material is suitable for locations where groundwater and/or surface waters could be affected. The Environment Agency will consider this when determining your permit application.
4. Bituminous road planings must not be deposited more than 2 metres deep.
5. Track ballast must be free from significant oil contamination.
6. You must remove water from dredgings before you can use them.
7. Excluding residual 'fines' from mechanical treatment of mixed waste at transfer stations.
8. You must characterise your waste against Environment Agency guidance WM3 to confirm that it is not hazardous waste. The Environment Agency will consider any risks this waste poses when determining your permit application.
9. [TGN EPR 8.01 'How to comply with your landspreading permit'](#) provides guidance on the meaning of soil substitutes.

Email only

Our ref: EPR/KB3005XD/A001
Your ref: EPR/KB3005XD/A001

Date: 01/04/2021

Dear Josh Parsons,

Environmental Permitting – Recovery or Disposal Operation

Pre-application Reference: EPR/KB3005XD/A001

Proposed Operator: Keltbray Ltd

Regulated facility: Deposit for Recovery

**Site Address : Land East Of Crown Quay Lane, Sittingbourne, Kent,
ME10 3ST**

As part of our pre-application discussions, you have submitted information to us that includes your assessment that the activity you wish to undertake at your site amounts to a recovery operation.

We have now fully considered your submission and we would advise you that we do not agree with your assessment that your activity is a recovery operation for the following reasons:

1. You have failed to obtain planning permission -
There may be restrictions or additions required from the approval of planning permission which may alter the final decision of our assessment.
2. It is unclear whether additional standards, restrictions or requirements will be required -
This is due to the site location namely being adjacent to a flood defence and the potential need of a Flood Risk Activity Permit ("FRAP") to carry out the works.

You have failed to provide sufficient evidence to support the case that the proposed activity is a recovery operation. We therefore cannot agree that this is a recovery operation. Please see the advice sheet for further information.

You may still apply for a recovery permit, however if you are unable to provide further evidence that supports your claim that the activity is a recovery operation, then the application is likely to be refused. If this happens you will lose your application fee. If your application is refused you have the right to appeal that refusal.

Please also note that following submission of an application, additional assessment will take place (for example, further assessment of the proposed waste types based on the sensitivity of the site location) and therefore agreement that an operation is a

Customer services line: 03708 506 506

Email: enquiries@environment-agency.gov.uk

www.environment-agency.gov.uk

recovery activity does not guarantee that a permit will be granted or a variation issued.

Further assessment to the suitability of wastes will be required – This is due to your Waste Recovery Plan (“WRP”) stating you wish to use approximately 14,000m³ of waste material that is currently stored on site. As this waste was contamination you have provided information to show it has been remediated. However you must ensure that the material poses no risk to human health or environmental pollution. In principle this material can be considered suitable for use, however this will required assessment in relation to your Waste Acceptance Criteria (“WAC”) and Waste Acceptable Procedures (“WAP”) and in regards to the sensitivity of the site which will be done at permit determination.

If you have any questions please phone me or email Mark.oxford@environment-agency.gov.uk.

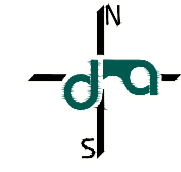
Yours sincerely

Mark Oxford

Permitting Officer

Appendix C

Development Plans



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 Do not scale other than for Local Authority Planning purposes.

LEGEND

- Proposed trees and landscaping - shown indicatively - refer to Landscape Architects' details
- Bin store / Cycle store / Refuse Collection Point
- Vehicle turning - refuse vehicle and fire appliance
- Generic turning and subject to Highways Consultants' swept path analysis
- Proposed retaining structures subject to Engineers' design
- 8m buffer from Water Course

LEGEND - PARKING ALLOCATION

The parking provision has been designed in accordance with the emerging Swale Borough Council Parking Standards - dated October 2019

- 84 Parking allocated to Plot number quoted
- 58 Apartment Residents - Unallocated
- 22 Visitors - Unallocated

Quantum of Parking Spaces

The following minimum requirements are taken from Appendix A. Requirements for "On-street controls absent or limited" and "None or very limited" are the same other than for 4 Bed Houses; none of which are proposed for this development.

1 & 2 Bed Apartments	1 space per unit	
1 & 2 Bed Houses	1 - 2 spaces per unit	
3 Bed Houses	2 - 3 spaces per unit	
Visitor Parking	0.2 per unit	

	Required spaces	Provided spaces
58 x Apartments	58	58
18 x 1 & 2 Bed Houses	16 - 32	22
31 x 3 Bed Houses	62 - 93	62
107 Units x 0.2	21.4	22 Visitor Spaces



supporting planning layout



dha architecture ltd

Brooklands Farm Business Park
 Bottle Lane
 Binfield
 Berkshire
 RG42 5QX

t. 0118 934 9666
 e. surname@dhaarchitecture.co.uk
 w. www.dhaarchitecture.co.uk

crown quay lane, sittingbourne

Supporting Planning Layout

10.07.2020 created
 1:500 @ A1 scaling
 JeH contact

reference 051904-BEL-K-02 revision

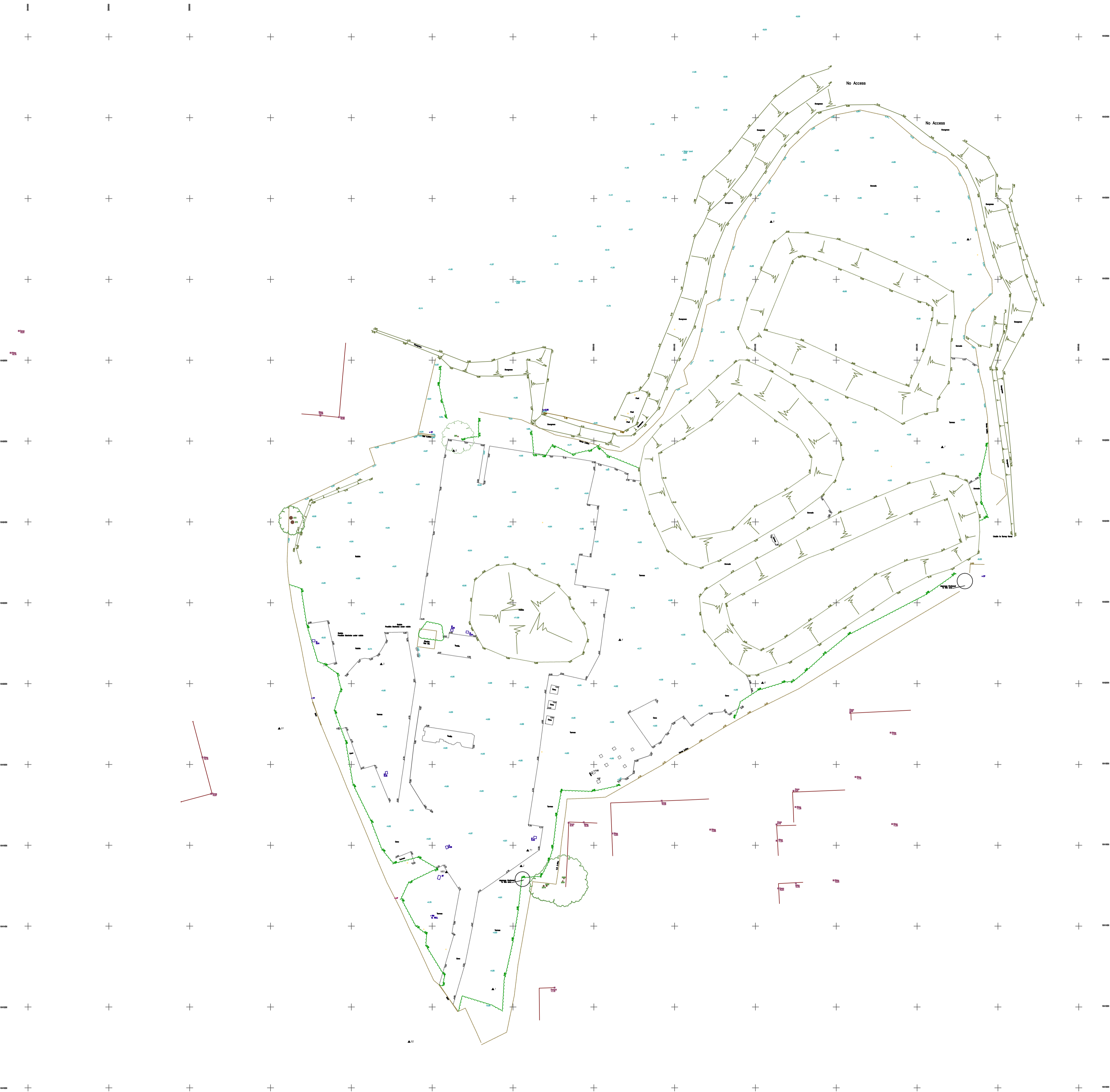
rev date by details

Important Information:

Any Drainage that has been investigated should be checked against statutory records to confirm details before proceeding with any design work.

We advise that an arborologist be appointed to correctly determine the species and condition of all trees surveyed prior to any design work.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

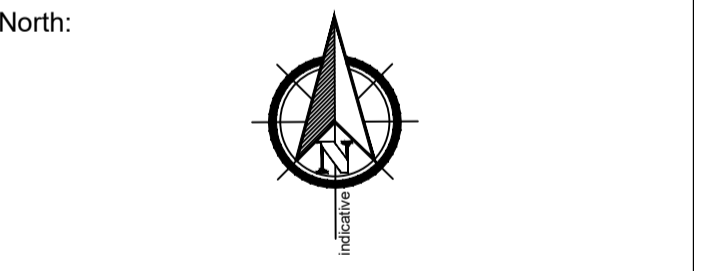


Survey Legend

FENCES	
BARBED WIRE FENCE	BWF
CORRUGATED IRON FENCE	CI
CLOSE BOARD FENCE	CB
CHESTNUT PALING FENCE	CF
IRON RAILING FENCE	IR
POST AND CHAIN FENCE	PC
POST AND RAIL FENCE	PR
POST AND WIRE FENCE	PWF
CHAIN LINK FENCE	CL
LARCH LAF FENCE	LL
INTERWOVEN FENCE	IWF
WIRE MESH FENCE	WM

ABBREVIATIONS	
BOLLARD	Bv
BRITISH TELECOM IC	BT
CONCRETE PAVING SLAB	CPS
COVER LEVEL	CL
DROP KERB	DK
ELECTRIC REDIRECTION COVER	EC
ELECTRICITY POLE	EP
FIRE HYDRANT	FH
FLOWER BED	FB
FOOTPATH	FP
GAS VALVE	GV
GALLY	Gy
IRRECTION COVER	IC
PIPE INVERT LEVEL	IL
KERB OUTLET	KO
MAN HOLE	MH
THRESHOLD	TH

Sheet Layout



Grid: OS GPS
 Levelling: OS GPS

Drawing Title:
 Topographical Survey Sheet 1

Site Address:
 Crown Quay Lane,
 Sittingbourne



Surveyor: JL	Drawn By: MWi	Verified By: MWi	Date: 14.09.18
CM No: CM/18/1000	Rev: A - additional levels		
Scale: 1:500m @ A1	Date: September 2018		

Cadmap Ltd
 67 Meadway Drive
 Horsell, Woking
 Surrey, GU21 4TF
 T: 01483 429385
 E: info@cadmap.co.uk
 W: www.cadmap.co.uk





Proposed Trees:
 Alnus glutinosa, Alnus glutinosa 'Laciniata', Alnus glutinosa 'Imperialis',
 Betula papyrifera kenaica, Magnolia grandiflora 'Goliath', Quercus rubra

Areas of coastal grassland and native planting is proposed to compliment the creek situation and provide an attractive view around the estuary.

Proposed species rich wildflower meadows to line the salt marshes with scattered native species tree specimens.



Native Hedge Planting:
 Crataegus monogyna, Ilex aquifolium, Ligustrum vulgare,
 Prunus spinosa, Viburnum lantana, Viburnum opulus

A proposed green corridor will buffer the development from Milton Creek and assist with the integration between both the creek and the residential frontages.

Creek enhancement will provide a new area of mudflat habitat. Hazel brush pile faggots help retain vegetation around the head wall and screen the



Formal landscape frontage with feature tree and ornamental shrub planting.

Viewing screen adjacent to creek enhancement; providing disturbance free, scenic views of the new mudflat habitat.



1.4-1.6m high native hedge, and post and wire fencing with stock netting, to provide formal edge to ecological corridor, enhance biodiversity and prevent access to the foreshore. Same height close board fence to be erected while hedge matures.

Additional ecological enhancements to be incorporated through the plots with the addition of building mounted bird and bat boxes and hedgehog friendly boundary treatments.

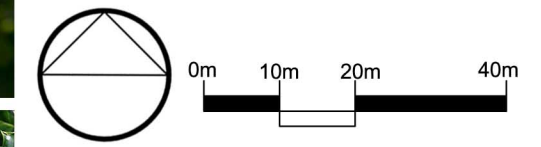
Structural native planting along southern boundary to provide landscape buffer to adjacent timber yard and land uses to the south.



Proposed Shrub:
 Berberis thunbergii, Cornus stolonifera 'Flaviramea', Cornus stolonifera, Cornus stolonifera 'Kelsey Gold',
 Eleagnus ebbingei, Hebe 'Autumn Glory', Ilex aquifolium, Mahonia aquifolium, Phormium tenax, Prunus lusitanica
 Viburnum davidi, Viburnum tinus

NOTES:
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No Dimensions to be scaled from this drawing.



- Key:**
- Application Site Boundary
 - Proposed Tree Planting
 - Proposed Native Hedge Planting
 - Proposed Shrub Planting
 - Wildflower Planting
 - Wetland Wildflower Planting
 - Hazel Brush Pile Faggots
 - Post and Wire Fence
 - Maintenance Gates
 - Information Boards
 - 8m Environment Agency Maintenance Easement
 - Proposed Salt Marsh Planting
 - Viewing Screen

A	12.07.20	Updated to new base layout	CW	CJ
REV	DATE	NOTE	DRAWN	CHK'D
REVISIONS				

aspect landscape planning

TITLE
 Crown Quay Lane, Sittingbourne
 Landscape Strategy Plan

CLIENT
 Bellway Homes

SCALE	DATE	DRAWN	CHK'D
1:1000@A3	NOV 2019	NB	CW
DRAWING NUMBER	REVISION		
7037.LS.1.0	A		

Appendix D

Waste Acceptance Procedure

Waste Acceptance Procedures

Deliveries of suitable waste material will be made by Keltbray and third party vehicles. The following waste acceptance procedure has been developed to ensure that waste accepted:

- Is suitable for the activity
- Is allowed by the environmental permit

The waste acceptance at the Crown Quay Lane, Sittingbourne will be underpinned by Keltbray's robust management system that will ensure that the procedures are effectively implemented, that non-conformance is identified and appropriate remedial action is taken.

1. Waste Types and Volumes

The site will accept up to 26,000 m³ of material during the life of the site to ensure that it is restored as per the planning permission. The following List of Waste (LoW) codes are to be accepted under the Environmental Permit

LoW Code	Description
17 05 04	soil and stones other than those mentioned in 17 05 03*
19 12 12	other wastes (including mixtures of materials) that have undergone mechanical treatment, other than those mentioned in 19 12 11*
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01*

There will be 2 no. distinct waste streams accepted at the site that will be both used for different aspects of the restoration work, these are:

- I. Stabilised materials (14,000m³ of materials currently stockpiled onsite); and
- II. Importation of surplus suitable inert soils from local sites developed / owned by the client (Bellway Homes).

1.1. Stabilised Materials

This waste stream will be limited to the LoW code 19 13 02 (solid wastes from soil remediation other than those mentioned in 19 13 01*) following the onsite treatment (stabilisation) of material currently stockpiled onsite. The treatment will be undertaken under Keltbray's Standard Rules SR2008 N0.27 (Ref. CB3902KF). Stabilisation of the material (current LoW code 19 12 12) is the screened fines from materials left onsite by the previous occupiers.

Stabilised wastes will need to meet the inert Waste Acceptance Criteria defined in 2003/33/EC, as set out in the table below:

Component	L/S 10 L/kg mg/kg dry substance
Arsenic	0.5
Barium	20
Cadmium	0.04
Chromium (total)	0.5
Copper	2
Mercury	0.01

Component	L/S 10 L/kg mg/kg dry substance
Molybdenum	0.5
Nickel	0.4
Lead	0.5
Antimony	0.06
Selenium	0.1
Zinc	4
Chloride	800
Fluoride	10
Sulphate	1,000*
Phenol Index	1
Dissolved Organic Carbon (**)	500
Total Dissolved Solids (TDS) (***)	4,000

(*) This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C0 (the first eluate of a percolation test at L/S = 0.1 L/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 L/kg under initial equilibrium conditions.

(*) If the waste does not meet these values for DOC at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500mg/kg.

(***) The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride.

(BOLD) Site-specific / where waste acceptance criteria differ from that of WAC for inert landfill.

The Waste Acceptance Criteria limit values for total content of organic parameters will be as follows:

Parameter	Value (mg/kg)
Total Organic Carbon (TOC) (****)	30,000
BTEX compounds (benzene, toluene, ethylbenzene and xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Mineral oil (C10 to C40)	500

(****) In the case of soils, a higher limit value may be permitted by the Environment Agency, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.

1.2. Imported Suitable Materials

This waste stream will be limited to the following List of Waste codes:

- 17 05 04 (including excavated from contaminated sites) soil and stones other than those mentioned in 17 05 03*); and
- 19 12 12 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11*.

By importing materials from local sites developed / owned by the client (Bellway Homes), the materials will effectively be controlled at source. It is also the client's and Keltbray's intention to limit the number of different sources / sites.

Imported suitable waste materials will meet the requirement of inert WAC.

Any imported waste materials will need to adhere to the following acceptance procedure;

1.2.1. Pre-Acceptance Process

The project team are responsible for ensuring all the information needed to determine acceptability is obtained, this includes;

- Analysis carried out by accredited laboratory to prove the waste meets the requirements of the site and does not exceed inert WAC limits.
- Desk study information, such as previous use of land, historical plans (if available);
- Site investigation information, such as boreholes, trial pits (if available); and
- Site visit to assess the material on site of origin, including, visual and/or olfactory assessment.

If the inert material comes from a single source, has been well characterised and described and that there is no risk that it could have been contaminated then an analysis will not be necessary.

1.2.2. Procedures at Crown Quay Lane

The waste acceptance procedures at the Crown Quay Lane will ensure that there is:

- Visual inspection of the load both when the tailgate is opened and during the tipping operation;
 - Further checking of the project team requests that this is undertaken; and
 - Rejection or quarantining of unacceptable loads.
- I. On arrival, the gateman/banksman will instruct the driver where the load should be deposited. Material for infill will be deposited directly at the working face;
 - II. Keltbray operatives must visually inspect every load as it is being discharged from the vehicle, this will ensure that there is no unauthorized material present within the load. The visual inspection will generally be undertaken from the mobile plant cab, however, in the event of suspicious material potentially being spotted the operative will get out of their vehicle to carry out a more detailed inspection.
 - III. If the waste being tipped is seen to be acceptable then the material will either be placed in the infill area or stockpiled until required.
 - IV. If the waste is not deemed acceptable, either because it contains unacceptable material or does not correspond to the waste description, then the Operative will report any non-compliant wastes immediately to the Site Manager or other appropriate person. They will isolate this waste and not move it, until advised by the Site Manager, who will follow the procedures detailed in Section 1.2.4 below.
 - V. The Site Manager will inspect the site at the start and end of their shift to check whether there is:
 - any waste visible that is not compliant, or
 - anything on or around the Site that is cause for concern.

1.2.3. Verification

Following the deposit of the waste, a suitably qualified person from the project team will carry out further checks to ensure that the material meets the waste criteria set within the environmental permit. The following process will be followed:

- I. 1 no. sample per 400 loads. This sample will be labelled with the Waste Transfer Note Number, the date, and the deposit location of the waste load from which the sample was taken;
- II. Samples taken will be sent for laboratory testing at a suitable accredited laboratory for assessment against inert WAC limits;
- III. Once the results are returned, these will be assessed by a competent person who will check that they comply with the permit requirements; and
- IV. The results shall be retained on site with other waste records and made available for inspection by the Environment Agency at any reasonable time. Any non-conformances will be reported to the Environment Agency without delay and further testing may be undertaken.

1.2.4. Quarantine / Rejection Procedures

The above outlined pre-acceptance procedure should prevent uncompliant waste being brought to site. However, in the event a load deposited in the tipping area is suspected of being unacceptable it will be rejected. The details of this will be recorded in the site diary.

If the Keltbray operative observes unauthorised waste either during or after deposit, the driver of the vehicle will be alerted and the waste will be reloaded onto the vehicle where possible. The driver will then be redirected to the Site Office, details will be taken and the driver will be asked to leave the site.

If the vehicle has left the tipping area the operative will contact the operatives on the gate and efforts made to intercept the vehicle before leaving the site so that the waste can be reloaded, and details be recorded.

In the event that the vehicle has left the site before the presence of unauthorised waste is identified, the waste will be isolated or moved to a temporary 'quarantine' storage area. The client's site team (at the producing site) will then be contacted and asked to arrange for the removal the waste from site. If the client's site team is unable to remove the waste it will be consigned to an alternative suitably authorised facility by a registered waste carrier. A waste transfer note will be completed for all such transactions.

Any rejected loads that are on site for more than 24 hours will be stockpiled on an impermeable membrane and suitably covered to avoid water ingress (minimising the risk of leaching contaminates). The waste will be maintained in in this state until such time as a suitable alternative facility has been identified.

A skip will be maintained close to the operational area. This skip will be used for the storage of isolated inclusions (such as wood and plastic) identified within loads of waste which would not warrant rejection of the load. Inclusions will be manually removed from the load and when removed would render the waste suitable for use at the site. These minor inclusions will be removed from the load and placed in the skip prior to off-site disposal at a suitable facility.

The client's site team (at the producing site) of any rejected waste will be advised that the waste has been rejected and the reasons for this. In the event of repeated deliveries of non-

conforming waste from an individual site, waste acceptance will be halted until a time that the site / materials can be reassessed. A record of “problem sites” will be maintained on site, and will be available for inspection by the EA.

1.3. Record Keeping

Records will be maintained of all waste transactions relating to the Crown Quay Lane Recovery operation. The records will comprise the following:

1.3.1. Waste Transfer Notes

All waste accepted for disposal at the facility will be accompanied by a waste transfer note as required by the Duty of Care Regulations, which will provide the following details: -

- waste description including appropriate waste classification code;
- waste origin;
- transferor and transferee; and
- signatures of transferor and transferee.

1.3.2. Pre-acceptance & Other Correspondence

Copies of characterisation and analysis of waste accepted and correspondence will be maintained on site, this will be in an electronic format but will be available to all relevant personnel.