

Contaminated Land Inspection Report

Fairfield Road Refuse Tip and Sewage Works
Downham Market

April 2022

Reference no. 022401

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Please Note:		

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Executive Summary

The Borough Council of King's Lynn and West Norfolk (BCKLWN) has a statutory duty to inspect its district for potentially contaminated land under Part 2A of the Environmental Protection Act 1990. The Borough Council's Part 2A inspection strategy identified Fairfield Road (the site) as being of High priority due to the presence of a former Refuse Tip and sewage works and potentially sensitive receptors.

Given the former site usage, an assessment of the site has been undertaken to assess the potential for harm to human health, property, ground/surface water and designated environmental receptors under Part 2A.

To gather information of the site's history a desk study and preliminary risk assessment were carried out by the Environmental Quality Team. From the evidence gathered during the desk study of the site history and a site walkover, the following can be stated: The site was historically a refuse tip and sewage works. Waste was deposited between 1946 and 1974. The site's present use is an area of waste ground between a railway line and residential housing estate. The site was overgrown with weeds at the time of the most recent walkover.

The site has not been subject to any previous investigations other than a Preliminary Site Assessment conducted by BCKLWN in 2015, ahead of this Contaminated Land Inspection.

From the contaminated land risk assessment plausible source pathway receptor linkages were identified. A MODERATE risk was assessed from contamination to human health, VERY LOW risk to property, LOW risk to surface waters.

There was no evidence of harm or of a significant possibility of significant harm to the receptors identified in the conceptual site model. As the risk posed is moderate, the site would be classified as Category 3 as set out in the Statutory Guidance. The land does not meet the definition of contaminated land under Part 2A and is not considered contaminated land. No further assessment of the site is considered necessary under Part 2A.

1 Introduction

This report details a review of information and risk summary about land at Fairfield Road and provides a conclusion on the risk to human health, property, groundwater and the wider environment.

The Contaminated Land Statutory Guidance (DEFRA, 2012) suggests that where the authority has ceased its inspection and assessment of land as there is little or no evidence to suggest that it is contaminated land the authority should issue a written statement to that effect.

2 Desk Study Information

Location

The site's location is shown in Appendix B. The grid reference for the centre of the site is 560439, 303935. The nearest postcode is PE38 9GN.

Previous investigation

The site has been subject to a previous investigation. Table 1 below lists details of the report used in compiling this written statement.

Table 1 Documents used in this report				
Reference	Date	Author	Title	
CL54	December 2015	AJG	Preliminary Site Assessment	

Previous Site Usage

The site was historically a refuse tip and sewage works. The Information provided by Norfolk County Council identifies the landfill site as being used for domestic and trade waste.

Present Site Usage

The site's present use is an area of waste ground. The site plan below (figure 1) shows the landfill. Photographs of the site are in appendix A.

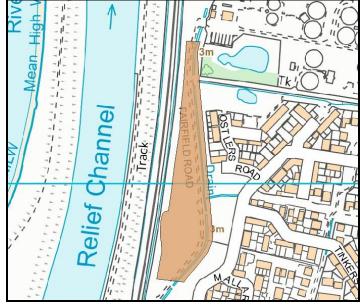


Figure 1: Site plan

Ownership

The site is owned by Anglian Water Services Limited, this report will be made available to them as site owners.

Environmental Setting Geology

Geological map indicates that bedrock geology is Kimmeridge Clay Formation – Mudstone. Superficial geology is Tidal Flat Deposits - Clay and Silt.

The site is at 4 metres above ordnance datum (m AOD). The previous investigation did not undertake any intrusive site investigations.

Hydrogeology

The superficial and bedrock deposits are designated by the Environment Agency as Non-aquifers. There are no known licensed water abstractions within 1 km of the site.

Hydrology

The nearest major water features are the Relief Channel approximately 50 m to the west and the River Great Ouse approximately 190 m to the west. Two drains bound the site to the east and west.

Local Authority Pollution Prevention and Control Regulations (LAPPC)
No LAPPC processes exist on site or within 500 m.

MAGIC website records

MAGIC website records the following

- The site is part of an area covered by a Phosphate Issues Priority (Medium Priority).
- The site is part of an area designated as Woodland Water Quality zone.
- The site is part of an area designated as being a Nitrate Vulnerable Zone 2017 (Surface Water).
- The site is part of an area designated as being covered by a Higher Level Stewardship Theme.

Historic Maps E-map Explorer

Enclosure Map 1800 – 1850 – Not available

Tithe map circa 1840 – The site was shown as fields, numbered 395, 396 and 398.

Ordnance Survey 1st Ed. 1879 – 1886 – The site was shown as an isolated field separated from the surrounding area by a railway line to the west and a road (Cattle Pen Drove) which circles the site on the south, east and north.

To the southwest was a Brick Works. To the east are Butts associated with a rifle range. The rest of the surrounding area is fields.

Historic Maps on file at the Borough Council of King's Lynn and West Norfolk

Historic maps are presented in Appendix B and summarised below.

1843 – 1893: The site was as depicted on the 1st OS map. (Appendix B - Drawing 102)

1891 – 1912: The site was depicted as shown above. (Appendix B – Drawing 103)

1904 – 1939: The site was depicted as being a Sewage Disposal Works (Downham Market) and there are tanks on site, which are assumed to be associated with this activity. (Appendix B - Drawing 104)

1919 – 1943: Not available.

1945 - 1970: The site was depicted as a Refuse Tip with the sewage works still present in the southern extent of the site. What appears to be a raised area is shown in the north of the site. Another sewage works is indicated to the northeast of the site. (Appendix B - Drawing 105)

1970 - 1996: Not available.

Aerial Photographs

Aerial photographs are presented in Appendix B and summarised below.

1945 – 1946 MOD Aerial Photograph – The site was shown as being a field. Some structures are shown in the south of the site and are assumed to be the sewage works. (Appendix B - Drawing 106)

1988 Aerial Photograph – The site was shown as a being mostly covered with vegetation with the exception of an area in the south, which corresponds with the 1945 – 1970 map. (Appendix B - Drawing 107)

1999 Aerial Photograph – The site was generally covered in vegetation. Circular areas were noted across (Appendix B - Drawing 108)

2006 - 2009 Aerial Photograph – The site was covered in scrub vegetation. Tracks can be seen crossing the site and appear to be of anthropogenic origin. (Appendix B - Drawing 109)

2017 Aerial Photograph – The site has not changed significantly from that described above. (Appendix B - Drawing 110)

Planning History

There are no applications for redevelopment of the site within the council's files.

Environment Agency Records

The Environment Agency records indicated that the site accepted Industrial and commercial waste.

Norfolk County Council Records

The County Council has provided the information on their records to us which has been used in the report and are provided in Appendix C.

3 Site Walkover

A site walkover was first carried out in January 2015. A follow up site walkover was completed in June 2021. A final walkover was completed in late February 2022 before publishing. Photographs are presented in Appendix A.

The site is accessed via Fairfield Road which crosses a railway line via a designated user worked crossing point. The roadway across the train tracks was constructed from concrete and initially heads in a north-easterly direction before turning to follow a north north-westerly direction, leading to an Anglia Water Sewage Treatment Works. To the east of the roadway was a ditch, supported by a gabion basket retaining wall beyond which there was an area of green open space and private housing. A public footpath, follows Fairfield Road across the railway line, north towards the sewage works before heading east away from the area of interest.

The area of interest is located east of the railway line and west of Fairfield Road. The southern portion of the site is occupied by sewage and electrical infrastructure. The majority of the site was occupied by mound of material, raising between 2.5 and 4 m above the level of the surrounding land.

At the time of the more recent walkover the mound was highly vegetated with weeds and long grass however, where bare ground could be inspected, brick, glass, plastic, concrete and suspected asbestos containing materials were visible. These observations confirm those made in 2015, at which time it was reported that the site showed evidence of having undergone some excavation which had unearthed some of the waste material. The waste materials included plastic, glass wheels, tyres and potentially asbestos containing materials (fragments of cement sheets).

During the walkover, evidence of use could be identified with litter and graffiti noted on and around the sewage and electrical infrastructure. Litter and evidence of dog walking was also noted on and around the area of mounded soil. There has been no observed change to the site in the latest inspection on the 28th February 2022.

Location of Receptors

Humans

A housing estate is positioned within 50 m of the site to the east and south separated from the site by a ditch and a roadway which lead to a sewage works located to the north. A railway line bounds the site to the west, beyond which are two rivers and fields.

Property

No property (of the types set out in Table 2 of the statutory guidance) exists on the site. A railway line immediately adjacent to the west of the site. There are several houses within 250 m of the site as well as a sewage works and an electricity substation.

Environment

In considering environmental receptors, the statutory guidance states that the authority should only regard certain receptors (described in Table 1 of the Statutory Guidance) as being relevant for the purposes of Part 2A. Harm to an ecological system outside that description should not be considered to be significant harm. The site and surrounding area do not contain any of the receptors stipulated in Table 1 of the Statutory Guidance. As such this receptor will not be considered further in this report.

Controlled water - Groundwater

As the site is underlain by a non-aquifer this exposure pathway is not considered to be viable. As such this receptor will not be considered further in this report.

Controlled water - Surface water

A ditch marks the western boundary of the site. It is assumed this ditch flows beneath the adjacent railway line and discharges to the relief channel, located 60 m west of the site. The location of this assumed discharge is unknown.

4 Contaminated Land Risk Assessment

The Council has used a process adapted from CIRIA C552 (Contaminated Land Risk Assessment, a guide to good practice) to produce the conceptual site model and estimate the risks to defined receptors. This involves the consideration of the probability, nature and extent of exposure and the severity and extent of the effects of the contamination hazard should exposure occur. Further explanation is provided in Appendix C.

Assessment of probability of a contamination event

From the information gathered it is considered that there is the potential for a source of contamination to be present on the former refuse tip and sewage works. The potential source is from the materials deposited in the refuse tip and contaminants associated with the sewage works.

Human health

The site is open and unfenced with a public footpath running along side the site. Residential properties are located within 50 m of the site. The site, roadway and adjacent land was used regularly by dog walkers. Evidence of use was also indicated by the presence of litter and graffiti. Given the location of the site to residential properties it is considered likely that the children living on the adjacent housing estate would utilise the site as a play area. Therefore the probability of a contamination event affecting human receptors is considered to be LIKELY.

Property

No property exists on the site or within close proximity to the site. Therefore, no property receptors are considered to be present. Therefore, the probability of a contamination event affecting property receptors is considered to be UNLIKELY.

Controlled water - Surface water

The site is bounded on the west and east by ditches. The ditches appear to be isolated and as such would not be classified as controlled waters. However there is a slight potential for runoff or leachate to percolate from the refuse pit into the ditch and then into the adjacent rivers. The probability of a contamination event to surface water is therefore assessed as having a LOW PROBABILITY.

Consultations

The Environment Agency Groundwater & Contaminated Land team (Eastern Area) have been consulted on this report and have agreed with the assessment of controlled waters risks, specifically that groundwater is not vulnerable (unproductive) and the surface water risks are likely to be low.

Assessment of Hazard

The hazard posed by the site has been based on the material observed during the site walkover and experience of site investigations undertaken on other landfills.

Human Health

The information available indicates that the waste disposed on site may have consisted of industrial, commercial and household in nature. Therefore there is the potential for a wide variety of contaminants at widely varying concentration to be present on site.

Given the evidence of waste present at the surface of the site and evidence of use by the public, the hazard is assessed as MEDIUM.

Property

The site is an uncapped land-raise which is an area of wasteland. As the land-raise is uncapped any ground gas generated would be able to disperse into the atmosphere and not migrate laterally into the adjacent residential properties. The hazard is assessed as LOW

Controlled Water - Surface waters

The waste material has been present on site for approximately 45 years. During that time it can be assumed that any leachable contaminants would have leached from the deposited waste and migrated into the adjacent water courses. This being the case, the concentrations of remaining contaminants would not pose a significant risk to the surface waters. The hazard is assessed as LOW.

Conceptual site model

The conceptual site model (Table 3) shows the sources, pathways and receptors identified and the subsequent risk classification.

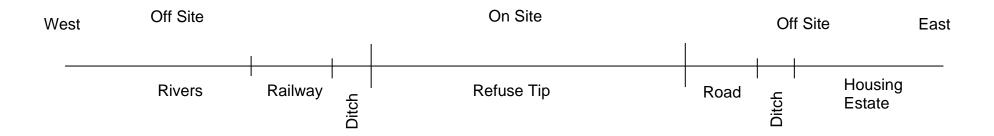
Table 3: Preliminary conceptual site model

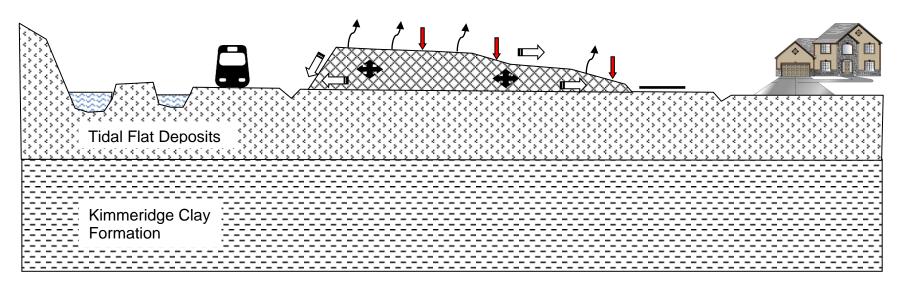
Source	Pathway	Receptor	Probability	Hazard	Risk
Metals and metalloids within	Direct contact	Humans	Likely	Medium	Moderate
waste material	Inhalation				
Metals and metalloids within waste material	Direct Contact Inhalation	Property	Unlikely	Low	Very Low Risk
Metals and metalloids within waste material	Direct contact	Controlled water; Surface Water	Low	Low	Low

Moderate/Low risk - It is possible that harm could arise to a designated receptor from an identified hazard. However, if any harm were to occur it is more likely that harm would be relatively mild.

Low risk - It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.

Very low risk - There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is unlikely to be severe. Ecological systems as set out in Table 1 of the contaminated land statutory guidance.





Schematic Conceptual Site model

5 Outcome of Preliminary Risk Assessment

Conclusion

Plausible source pathway receptor linkages were identified. A MODERATE risk was identified from contamination to human health, VERY LOW risk to property and LOW risk was identified to surface water.

There was no evidence of harm or of a significant possibility of significant harm to the receptors identified in the conceptual site model. As the risk posed is moderate, the site would be classified as Category 3 as set out in the Statutory Guidance (Appendix D contains the categorisations from the Statutory Guidance).

No evidence was noted of significant pollution of controlled waters or of the significant possibility of such pollution.

Part 2A status

Statutory Guidance states that 'If the authority considers there is little reason to consider that the land might pose an unacceptable risk, inspection activities should stop at that point.' In such cases the authority should issue a written statement to that effect. This report forms that written statement.

On the basis of its assessment, the authority has concluded that the land does not meet the definition of contaminated land under Part 2A and is not considered contaminated land.

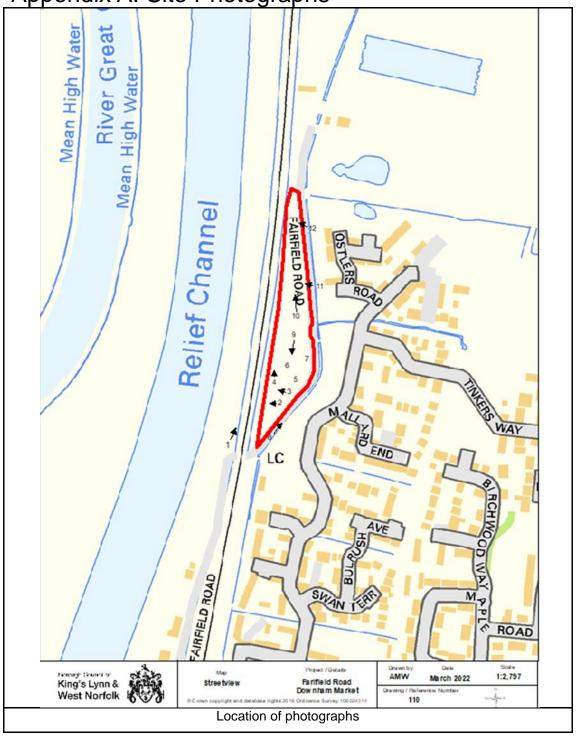
Further Action

This assessment is based on the site's current use and is valid providing no changes are made to the soil or vegetation cover material, to surface water conditions or to the site's use.

No further assessment of the site is considered necessary under Part 2A unless additional information is discovered or if changes are made to the site.

Appendices

Appendix A: Site Photographs





Photograph 1: View of site from opposite the railway line



Photograph 2: Sewage and electrical infrastructure at the south of site.



Photograph 3: Rubble visible in cleared area towards the south of site.



Photograph 4: Railway visible in background and lower, cleared area with rubble visible.



Photograph 5: Chunk of metal visible through the grass cover on the heap.



Photograph 6: Plastic seen through the grass cover of the heap.



Photograph 7: Lump of concrete exposed at the site surface



Photograph 8: South portion of the drain running along the east of site. Housing estate in the background showing the proximity to site.



Photograph 9: View South of site from the top of the heap showing the housing estate, railway and phone mast.



Photograph 10: View from top of the heap north, bramble cover visible. Housing estate in the background.

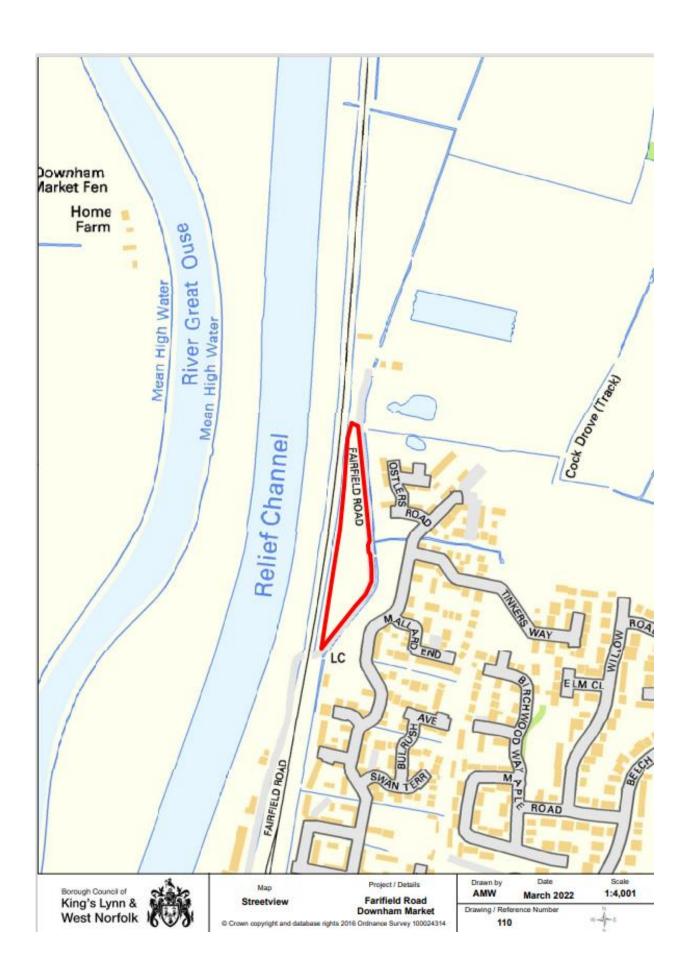


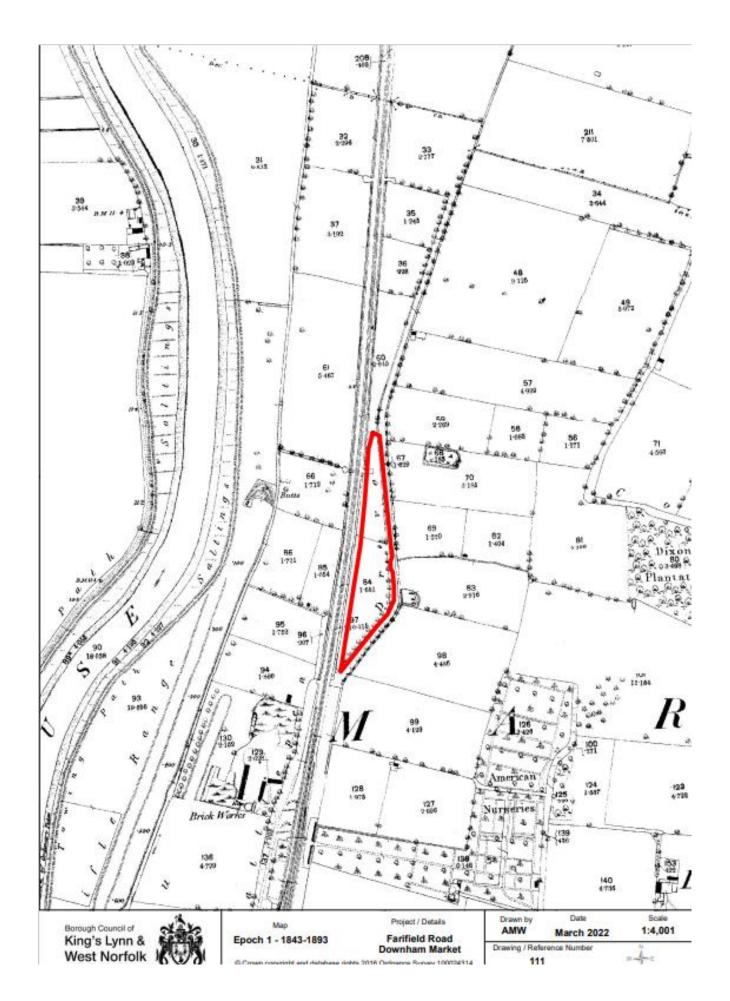
Photograph 11: Middle section of the grass covered heap with Bramble

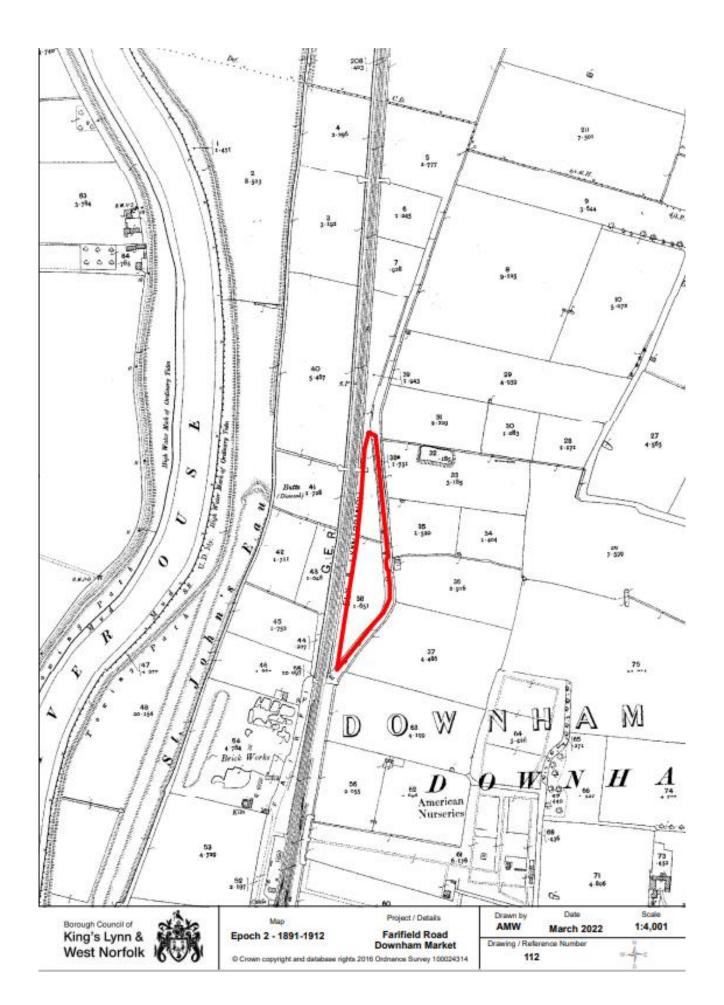


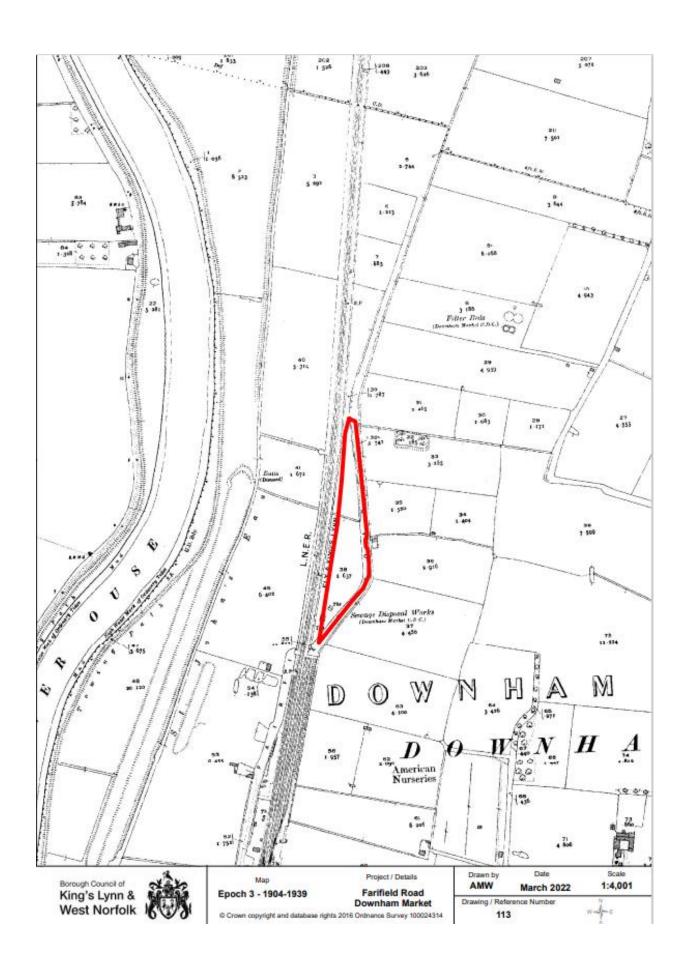
Photograph 12: Northern section of the heap with bramble cover.

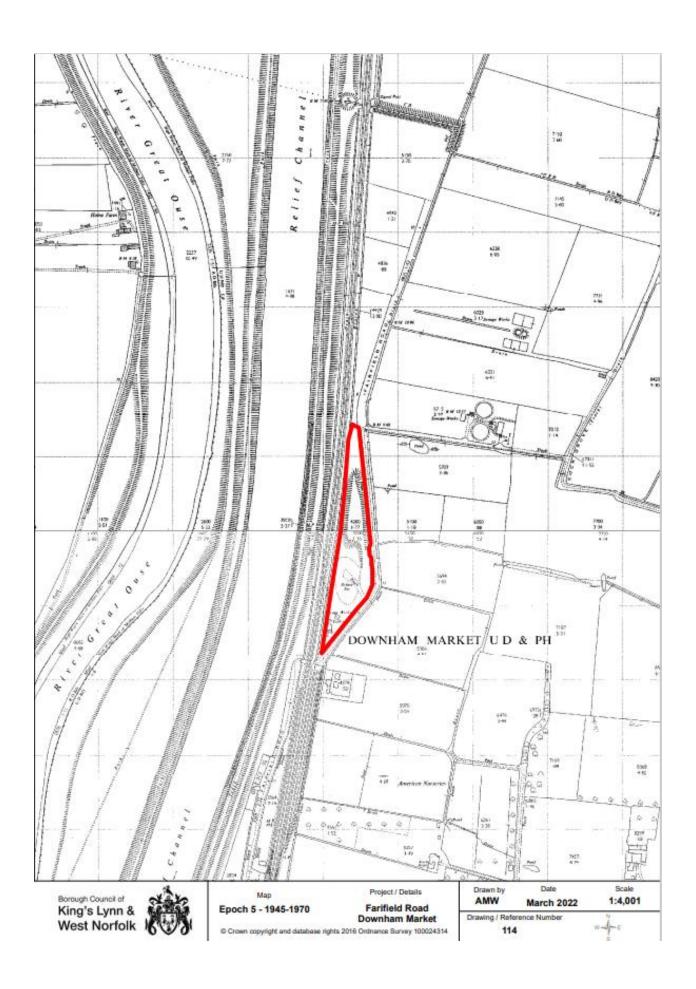
Appendix B: Drawings

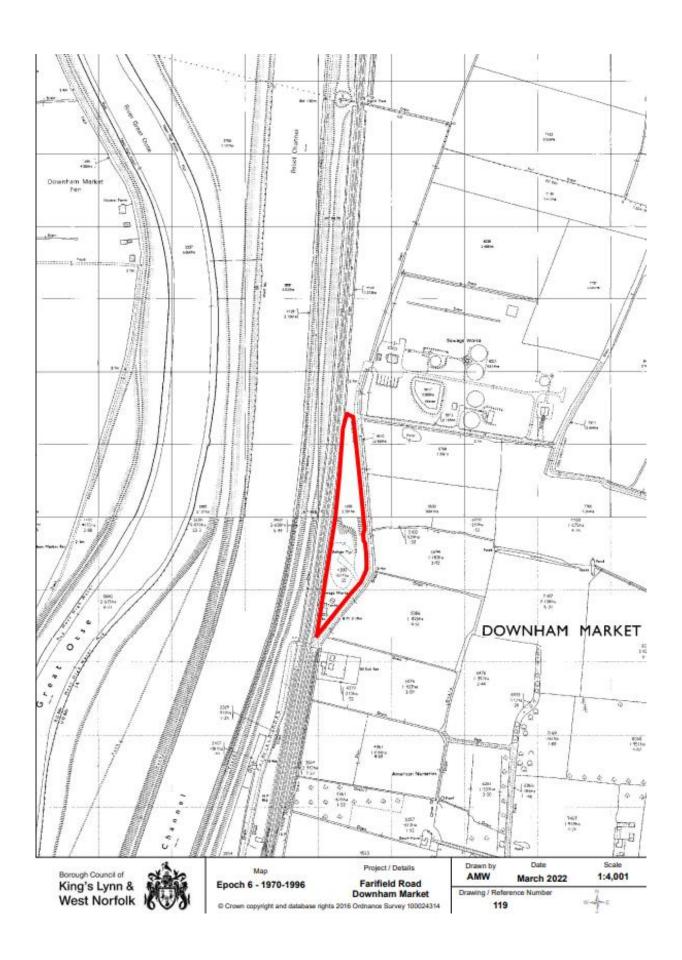


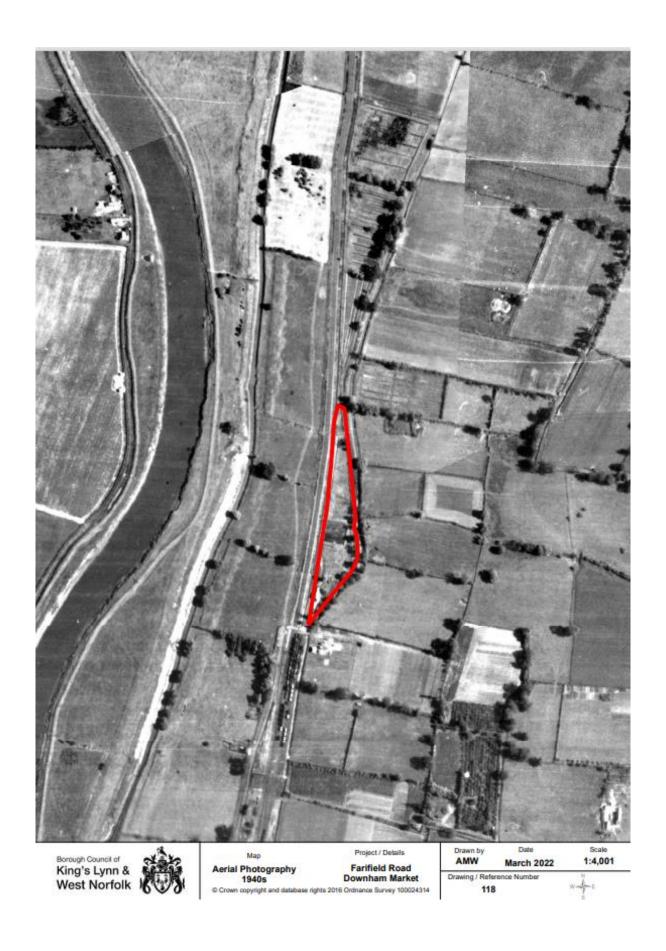






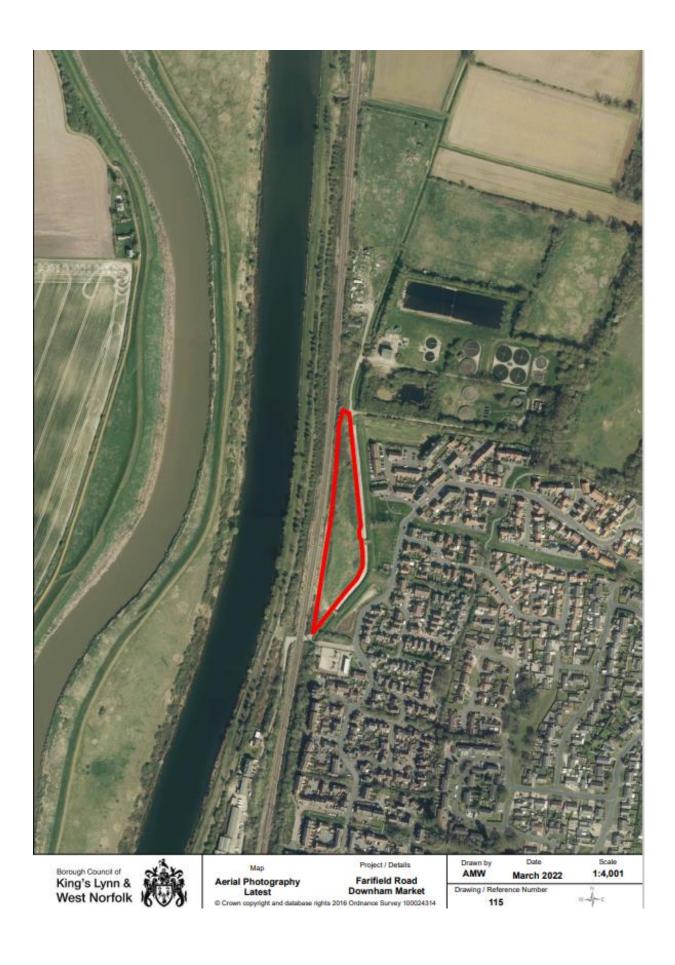












Appendix C: Information from Norfolk County Council

NORFOLK COUNTY COUNCIL DEPARTMENT OF PLANNING AND TRANSPORTATION WASTE REGULATION SECTION

SITE: DOWNTHAM MAKES TF 604 039

PREVIOUS USE:

SITE OWNER:

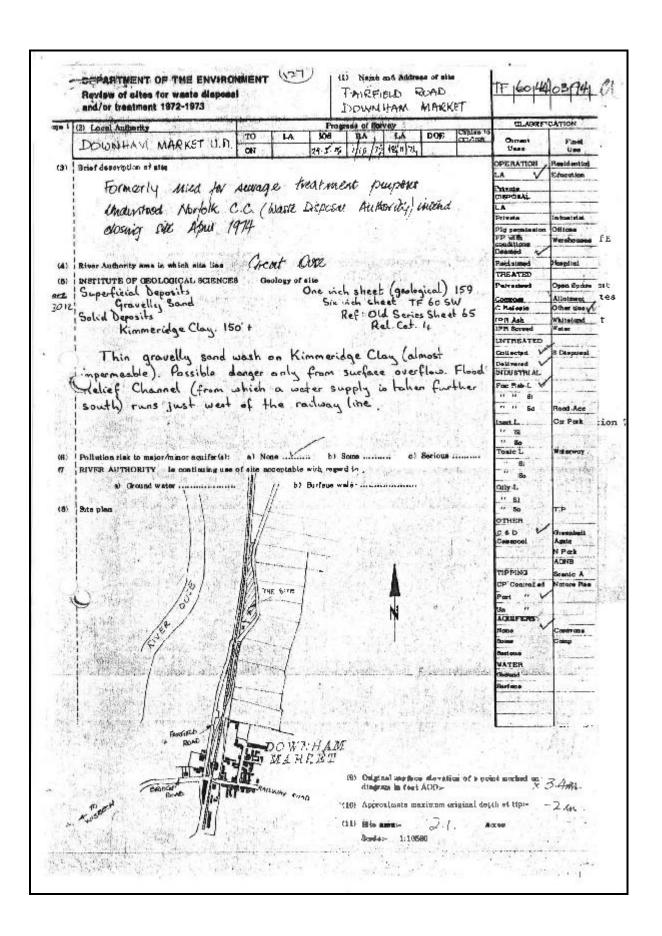
SITE OPERATOR:

PLANNING DEPARTMENT NO.:

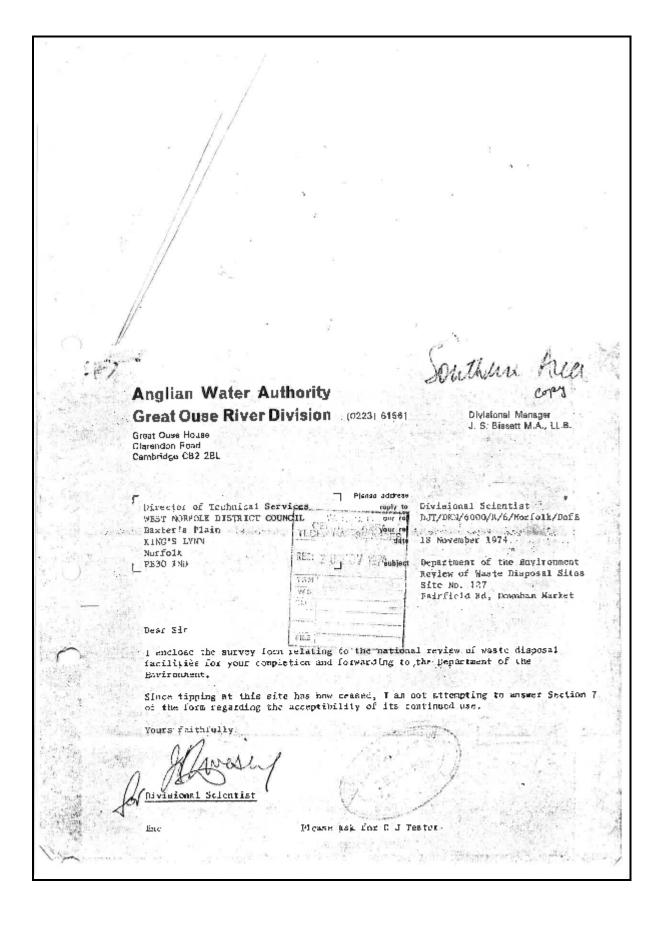
PLANNING PERMISSION REFERENCE:

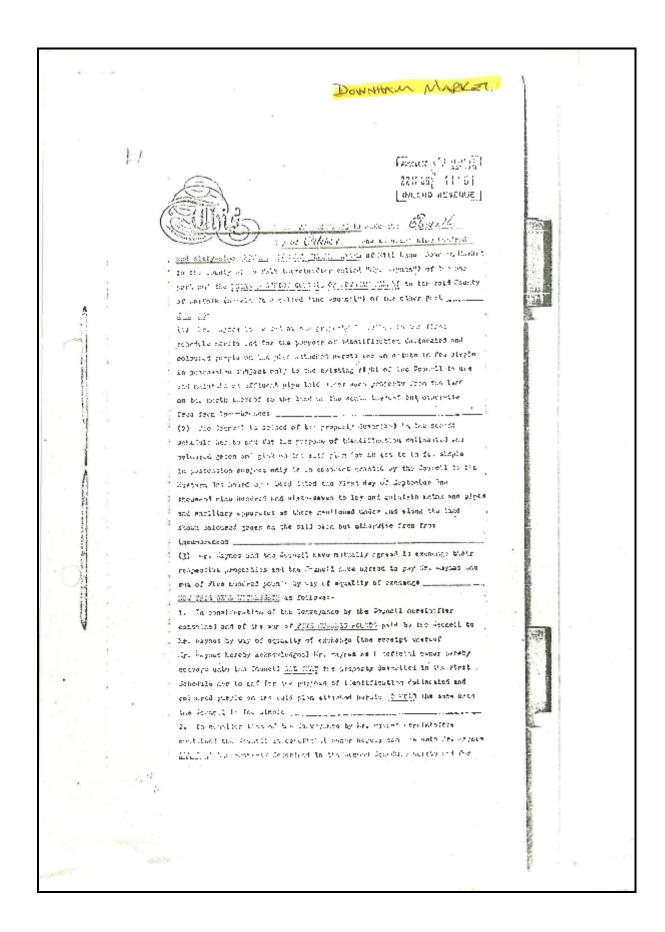
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Appendix D. Risk Assessment Methodology

The Model Procedures for the Management of Land Contamination (CLR11¹) provide the technical framework for applying a risk management process when dealing with contaminated land.

The Borough Council's Contaminated Land Strategy has identified priority sites based on mapping and documentary information. The Contaminated Land Inspection Report collates all the existing information on the site and develops a conceptual site model to identify and assess potential pollutant linkages and to estimate risk.

The risk assessment process focuses on whether there is an unacceptable risk, which will depend on the circumstances of the site and the context of the decision. The Council has used a process adapted from CIRIA C552, Contaminated Land Risk Assessment, a guide to good practice² to produce the conceptual site model and estimate the risk of harm to defined receptors. This involves the consideration of the probability, nature and extent of exposure and the severity and extent of the effects of the contamination hazard should exposure occur.

The probability of an event can be classified as follows:

- Highly likely: The event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution;
- Likely: It is probable that an event will occur, or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- Low likelihood: Circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term;
- Unlikely: Circumstances are such that it is improbable the event would occur even in the long term.

The severity of the hazard can be classified as follows:

- High: Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Contaminated Land Statutory Guidance, April 2012');
- Medium: Chronic damage to human health ('significant harm' as defined in 'Contaminated Land Statutory Guidance, April 2012'), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Contaminated Land Statutory Guidance, April 2012');

¹ https://www.gov.uk/guidance/land-contamination-risk-management

² https://www.brebookshop.com/samples/142102.pdf

 Low: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Contaminated Land Statutory Guidance, April 2012'). Damage to sensitive buildings, structures or the environment.

Once the probability of an event occurring and hazard severity has been classified, a risk category can be assigned from the table below:

		Hazard				
		High	Medium	Low		
	High Probability	Very High Risk	High Risk	Moderate Risk		
ıbility	Likely	High Risk	Moderate Risk	Moderate/Low Risk		
Probability	Low Probability	Moderate risk	Moderate/Low Risk	Low Risk		
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk		
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Moderate risk	It's possi from an i any such	It's possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that harm would be relatively mild.				
Moderate/Low ri	from an i	It is possible that harm could arise to a designated receptor from an identified hazard. However, if any harm were to occur it is more likely that harm would be relatively mild.				
Low Risk	from an i realised,	sible that harm could arise to a designated receptor identified hazard, but it is likely that this harm, if would at worst normally be mild.				
Very Low Risk		a low possibility that harm could arise to a receptor. In t of such harm being realised it is unlikely to be				

Appendix E. Determination of contaminated land - Contaminated Land Statutory Guidance, April 2012

Human Health

Category The local authority should assume that a significant possibility of significant harm exists in any case where it considers there is an unacceptably high probability, supported by robust science-based evidence that significant harm would occur if no action is taken to stop it. For the purposes of this Guidance, these are referred to as "Category 1: Human Health" cases. Land should be deemed to be a Category 1: Human Health case where: (a) The authority is aware that similar land or situations are known, or are strongly suspected on the basis of robust evidence, to have caused such harm before in the United Kingdom or elsewhere; or (b) The authority is aware that similar degrees of exposure (via any medium) to the contaminant(s) in question are known, or strongly suspected on the basis of robust evidence, to have caused such harm before in the United Kingdom or elsewhere; (c) The authority considers that significant harm may already have been caused by contaminants in, on or under the land, and that there is an unacceptable risk that it might continue or occur again if no action is taken. Among other things, the authority may decide to determine the land on these grounds if it considers that it is likely that significant harm is being caused, but it considers either: (i) that there is insufficient evidence to be sure of meeting the "balance of probability" test for demonstrating that significant harm is being caused; or (ii) that the time needed to demonstrate such a level of probability would cause unreasonable delay, cost, or disruption and stress to affected people particularly in cases involving residential properties. 2 Land should be placed into Category 2 if the authority concludes, on the basis that there is a strong case for considering that the risks from the land are of sufficient concern, that the land poses a significant possibility of significant harm, with all that this might involve and having regard to Section 1. Category 2 may include land where there is little or no direct evidence that similar land, situations or levels of exposure have caused harm before, but nonetheless the authority considers on the basis of the available evidence, including expert opinion, that there is a strong case for taking action under Part 2A on a precautionary basis. 3 Land should be placed into Category 3 if the authority concludes that the strong case described in 4.25(a) does not exist, and therefore the legal test for significant possibility of significant harm is not met. Category 3 may include land where the risks are not low, but nonetheless the authority considers that regulatory intervention under Part 2A is not warranted. This recognises that placing land in Category 3 would not stop others, such as the owner or occupier of the land, from taking action to reduce risks outside of the Part 2A regime if

they choose. The authority should consider making available the results of its inspection and risk assessment to the owners/occupiers of Category 3 land.

Category

- The local authority should consider that the following types of land should be placed into Category 4: Human Health:
 - (a) Land where no relevant contaminant linkage has been established.
 - (b) Land where there are only normal levels of contaminants in soil, as explained in Section 3 of this Guidance.
 - (c) Land that has been excluded from the need for further inspection and assessment because contaminant levels do not exceed relevant generic assessment criteria in accordance with Section 3 of this Guidance, or relevant technical tools or advice that may be developed in accordance with paragraph 3.30 of this Guidance.
 - (d) Land where estimated levels of exposure to contaminants in soil are likely to form only a small proportion of what a receptor might be exposed to anyway through other sources of environmental exposure (e.g. in relation to average estimated national levels of exposure to substances commonly found in the environment, to which receptors are likely to be exposed in the normal course of their lives).

Ecological system effects

Relevant types of receptor

Any ecological system, or living organism forming part of such a system, within a location which is:

- A site of special scientific interest (under section 28 of the Wildlife and Countryside Act 1981)
- A national nature reserve (under s.35 of the 1981 Act)
- A marine nature reserve (under s.36 of the 1981 Act)
- An area of special protection for birds (under s.3 of the 1981 Act)
- A "European site" within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010
- Any habitat or site afforded policy protection under paragraph 6 of Planning Policy Statement (PPS 9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or
- Any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.

Significant harm

The following types of harm should be considered to be significant harm:

- Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or
- Harm which significantly affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location.

In the case of European sites, harm should also be considered to be significant harm if it endangers the favourable conservation status of natural habitats at such locations or species typically found there. In deciding what constitutes such harm, the local authority should have regard to the advice of Natural England and to the requirements of the Conservation of Habitats and Species Regulations 2010.

Significant possibility of significant harm

Conditions would exist for considering that a significant possibility of significant harm exists to a relevant ecological receptor where the local authority considers that:

- Significant harm of that description is more likely than not to result from the contaminant linkage in question; or
- There is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration.

Any assessment made for these purposes should take into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.

Property effects

Relevant types of	Significant harm	Significant
receptor		possibility of
Property in the form of:	For crops, a substantial diminution in	significant harm Conditions would exist
r roporty in the form on	yield or other substantial loss in their	for considering that a
Crops, including	value resulting from death, disease	significant possibility of
timber;	or other physical damage. For domestic pets, death, serious	significant harm exists to the relevant types of
Produce grown	disease or serious physical damage.	receptor where the local
domestically, or on	For other property in this category, a	authority considers that
allotments, for consumption;	substantial loss in its value resulting from death, disease or other serious	significant harm is more likely than not to result
concumption,	physical damage.	from the contaminant
Livestock;		linkage in question,
Other owned or	The local authority should regard a substantial loss in value as occurring	taking into account relevant information for
domesticated animals;	only when a substantial proportion of	that type of contaminant
VA/Stall and incoming a stall and inches	the animals or crops are dead or	linkage, particularly in
Wild animals which are the subject of	otherwise no longer fit for their intended purpose. Food should be	relation to the ecotoxicological effects
shooting or fishing	regarded as being no longer fit for	of the contaminant.
rights.	purpose when it fails to comply with	
	the provisions of the Food Safety Act 1990. Where a diminution in yield or	
	loss in value is caused by a	
	contaminant linkage, a 20% diminution or loss should be	
	regarded as a benchmark for what	
	constitutes a substantial diminution	
	or loss.	
	In this section, this description of	
	significant harm is referred to as an	
Property in the form of	"animal or crop effect". Structural failure, substantial damage	Conditions would exist
buildings. For this	or substantial interference with any	for considering that a
purpose, "building"	right of occupation. The local	significant possibility of
means any structure or erection, and any part of	authority should regard substantial damage or substantial interference	significant harm exists to the relevant types of
a building including any	as occurring when any part of the	receptor where the local
part below ground level,	building ceases to be capable of	authority considers that
but does not include plant or machinery comprised	being used for the purpose for which it is or was intended.	significant harm is more likely than not to result
in a building, or buried	it is or was interided.	from the contaminant
services such as sewers,	In the case of a scheduled Ancient	linkage in question
water pipes or electricity cables.	Monument, substantial damage should also be regarded as occurring	during the expected economic life of the
	when the damage significantly	building (or in the case of
	impairs the historic, architectural,	a scheduled Ancient
	traditional, artistic or archaeological interest by reason of which the	Monument the foreseeable future),
	monument was scheduled.	taking into account
	In this Coation this description of	relevant information for
	In this Section, this description of significant harm is referred to as a	that type of contaminant linkage.
	"building effect".	

Controlled waters

Significant pollution of controlled waters

The following types of pollution should be considered to constitute significant pollution of controlled waters:

- (a) Pollution equivalent to "environmental damage" to surface water or groundwater as defined by The Environmental Damage (Prevention and Remediation) Regulations 2009, but which cannot be dealt with under those Regulations.
- (b) Inputs resulting in deterioration of the quality of water abstracted, or intended to be used in the future, for human consumption such that additional treatment would be required to enable that use.
- (c) A breach of a statutory surface water Environment Quality Standard, either directly or via a groundwater pathway.
- (d) Input of a substance into groundwater resulting in a significant and sustained upward trend in concentration of contaminants (as defined in Article 2(3) of the Groundwater Daughter Directive (2006/118/EC)5).

Significar	nt possibility of significant pollution of controlled waters
Category	
1	This covers land where the authority considers that there is a strong and compelling case for considering that a significant possibility of significant pollution of controlled waters exists. In particular this would include cases where there is robust science-based evidence for considering that it is likely that high impact pollution (such as the pollution described in paragraph 4.38) would occur if nothing were done to stop it.
2	This covers land where: (i) the authority considers that the strength of evidence to put the land into Category 1 does not exist; but (ii) nonetheless, on the basis of the available scientific evidence and expert opinion, the authority considers that the risks posed by the land are of sufficient concern that the land should be considered to pose a significant possibility of significant pollution of controlled waters on a precautionary basis, with all that this might involve (e.g. likely remediation requirements, and the benefits, costs and other impacts of regulatory intervention). Among other things, this category might include land where there is a relatively low likelihood that the most serious types of significant pollution might occur
3	This covers land where the authority concludes that the risks are such that (whilst the authority and others might prefer they did not exist) the tests set out in Categories 1 and 2 above are not met, and therefore regulatory intervention under Part 2A is not warranted. This category should include land where the authority considers that it is very unlikely that serious pollution would occur; or where there is a low likelihood that less serious types of significant pollution might occur.
4	This covers land where the authority concludes that there is no risk, or that the level of risk posed is low. In particular, the authority should consider that this is the case where: (a) No contaminant linkage has been established in which controlled waters are the receptor in the linkage; or (b) The possibility only relates to types of pollution described in paragraph 4.40 above (i.e. types of pollution that should not be considered to be significant pollution); or (c) The possibility of water pollution similar to that which might be caused by "background" contamination as explained in Section 3.