



Contaminated Land Inspection Statement

**Former Morstons land at
The Nar Ouse Regeneration Area
Wisbech Road, King's Lynn**

**September 2015
Ref 026388**

Borough Council of King's Lynn and West Norfolk,
Environmental Quality Team
King's Court,
Chapel Street,
King's Lynn
Norfolk
PE30 1EX

Written by

Fabia Pollard
Scientific Officer

Approved
Dave Robson
Environmental Health Manager - Environment

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Executive non-technical 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. Land at the Nar Ouse Regeneration Area was prioritised as medium to very high priority under the Borough Council's Contaminated Land Inspection Strategy. As the land was being redeveloped and remediated under the planning system further inspection was not required. The Environmental Quality Team have made recommendations on land remediation as part of the planning and development process.

In December 2014, KPMG LLP (KPMG) were appointed as administrators to Morston Assets Ltd and associated subsidiary companies which owned land at NORA. When Morstons Assets went into administration the land became unmanaged and it became necessary to re-assess the potential risk from the site. The Environmental Quality Team (EQT) contacted KPMG regarding their responsibility to assess the current status of the site.

The aims of the assessment were to determine if there is an immediate public health risk at this site, whether there is a significant possibility of significant harm (SPOSH) as defined by Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance or whether there is pollution of controlled waters. The relevant receptors of any contamination were considered to be neighbouring residents & public footpath users, trespassers on the site and water in the River Nar (a site of special scientific interest).

Arcadis EC Harris (UK) Ltd (ARCADIS) were instructed by the administrators to review available information on the site and carry out a further investigation. ARCADIS reviewed the information available on the land and concluded that more investigation was necessary so that likely risks to human health and water could be assessed.

A sampling programme was agreed with EQT. ARCADIS carried out sampling every 20 metres across the site using hand held equipment which gave instant results and also some laboratory analysis. The results of the sampling for metals, hydrocarbons, cyanide, asbestos and other potential water pollutants were screened by comparing to health based assessment criteria or environmental quality standards. Samples which did not exceed these values were not assessed further.

Some Arsenic, Lead, Benzo(a)pyrene, Cyanide and Asbestos levels required further risk assessment. These were examined in a Detailed Quantitative Risk Assessment.

The ARCADIS report concluded that on the basis of this assessment, the risks to water and ecological receptors did not need any further consideration. The Environment Agency (EA) have been asked to comment on controlled waters. The report showed that levels across the site were below levels that would directly impact human health but there were also a couple of hot spots with higher levels. The report concluded that due to the limited size of 'hotspots' of contamination, although some concentrations of the contaminants of concern exceeded the assessment criteria, it was unlikely that there was a significant risk to human health.

EQT have reviewed the report and approved the site investigation and risk assessment methodology and findings. The information provided supports the conclusion that there is not an immediate risk to public health from contaminants in near surface soils.

EQT recommends that the land be placed in Category 3 as defined in the Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance. There is not an immediate risk to public health from contaminants in near surface soils. The results of this inspection and risk assessment will be made available to interested parties.

EQT have recommended that the owners of the land take action to reduce risks outside of the Part 2A regime. This may include covering 'hotspots' or removing asbestos containing material. Users of the land should observe normal health, safety & hygiene precautions when in contact with the soil. Any proposals for groundworks or development must be discussed with the EQT before any work is undertaken.

Contaminated Land Inspection Statement

1.0 Site name and address

NORA Morstons Assets (in administration) Land off, Wisbech Road, Kings Lynn. The location and extent of the site is shown on Figures 1 and 2 in Appendix 1. Grid Reference 562212 318332.

2.0 Introduction and Background

Morston Assets have been partners in the Nar Ouse Regeneration Area (NORA) programme since they acquired land on the site in 2002. The entire NORA site was prioritised in line with the Borough Council Inspection Strategy and the land ranged from medium to very high priority. However, as the land was being redeveloped and remediated under the planning system further strategic inspection was not required.

On 15th December 2014, KPMG LLP (KPMG) were appointed as administrators to Morston Assets Ltd and associated subsidiary companies which owned land at NORA. Plots owned by Morston Assets' subsidiary companies (known as Halco 761 Ltd, Halco 762 Ltd, Halco 763 Ltd) include those coloured orange in Figure 1. APAM Ltd (APAM) were appointed property agents for KPMG.

When Morstons Assets went into administration the land became unmanaged and it became necessary to re-assess the potential risk to the casual site user from surface soils on the site.

The aims of the assessment were to determine if there is an immediate public health risk at this site, whether there is a significant possibility of significant harm (SPOSH) as defined by Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance and if there is significant pollution of controlled waters.

4.0 Previous Reports

The land has been subject to a number of investigations both prior to acquisition by Morstons Assets and then by Morstons as part of redevelopment. Arcadis EC Harris (UK) Ltd (ARCADIS) were instructed by the administrators to review available information on the site and carry out a further investigation.

As part of this project Borough Council files and the following reports were consulted:

ARCADIS, June 2015, Environmental Site Assessment (ESA) and Detailed Quantitative Risk Assessment (DQRA)
ARCADIS, March 2015, Executive Summary Report
BCKLWN, Feb 2015 DQRA of chronic risk on NORA – Heavy Metals and PaH
BCKLWN, Feb 2015, DQRA of chronic risk on NORA – cyanide
BCKLWN, Jan 2015, Initial Risk Assessment
NEES, June 2014, Stockpile Characterisation Exercise
Geodyne Ltd, Aug 2006, Monthly Groundwater Monitoring
Geodyne Ltd, March 2006, Phase 1A Validation and Remediation Method Statement
Mouchel Parkman, June 2006, Factual Controlled Water Monitoring Report
Mouchel Parkman, Feb 2006, Remediation Strategy
Mouchel Parkman, April 2005, Investigation of former phosphogypsum lagoon
Mouchel Parkman, July 2005, Groundwater Risk Assessment
Geodyne Ltd, Jan 2003, Consolidated Report

Parkman, July 2003, Data Review and Scope WSP, undated, Outline Remediation Strategy

4.0 Present Site Usage

The site is currently vacant and undeveloped

5.0 Summary Conceptual Site Model

The conceptual site model (CSM) sets out the potential source pathway receptor relationships and which could be present on the land, taking account of past and present site use and ground and environmental conditions. More detail is provided in the ARCADIS ESA and DQRA report. (Appendix 2)

Contaminant	Pathway	Receptor	Comment
Arsenic, Cadmium, Chromium, Copper, Nickel, Zinc, Lead, Mercury, Selenium, cyanide, sulphate, sulphide, total sulphur, nitrate, nitrite, pH, speciated(16) PAHs, phenols, asbestos, phosphorous.	Dermal (Dermal Contact) inhalation & Ingestion (Dust & Soils)	Trespassers	Land largely un-vegetated and absent of hard standing.
	Dermal (Direct Contact), inhalation, and ingestion of wind-blown dust.	Public Footpath Users	Land largely un-vegetated and absent of hard standing.
	Dermal (Direct Contact), inhalation, and ingestion of wind-blown dust.	Neighbouring Residents	Land largely un-vegetated and absent of hard standing.
Phosphogypsum derived leachate material	Groundwater infiltration / migration	River Nar	Designated as a sensitive environmental receptor.

6.0 Site Investigation

The land has been subject to multiple investigations in the past. However, as contaminated material was reported to have been moved across the site, further sampling was required to assess potential risks from substances in shallow soils.

In April and May 2015 ARCADIS screened soils with a hand held X-ray Fluorescence (XRF) instrument based on a 20m grid across the site. Validation soil samples were collected on a 40m grid for laboratory analysis.

Samples were also taken of surface water for laboratory analysis

7.0 Generic Quantitative Risk Assessment (GQRA)

The results of the sampling for the contaminants of concern were screened by comparison to generic assessment criteria (GAC) which are set out in the ARCADIS ESA and DQRA report. Samples which did not exceed the GAC were not assessed further.

Some samples exceeded the GAC for Arsenic, Lead, Benzo(a)pyrene, Cyanide or Asbestos. These were examined in more detail in a Detailed Quantitative Risk Assessment (DQRA) which is discussed in the following section.

8.0 Revised Conceptual Site Model

The CSM was revised based on the findings of the Generic Quantitative Risk Assessment and relevant contaminant linkages were defined for the DQRA

Contaminant	Pathway	Receptor
Arsenic, Lead, Benzo(a)pyrene and Cyanides	Inhalation of outdoor dust impacted by a shallow soil source	Neighbouring Residents
	Inhalation of vapours in outdoor air impacted by a shallow soil source	Trespasser – traveller and children
	Inhalation and ingestion of indoor and outdoor dust impacted by a shallow soil source	
	Direct Contact exposure with shallow soils/dust	
	Inhalation of vapours and dust in outdoor air impacted by a shallow soil source.	Public Footpath Users
Asbestos	Inhalation of outdoor dust impacted by a shallow soil source	Neighbouring Residents
		Trespasser – traveller and children
		Public Footpath Users

9.0 Detailed Quantitative Risk Assessment

9.1 The DQRA allowed an estimation of risks within the relevant source pathway receptor relationships to assess whether the relevant pollutant linkages were significant. Site specific assessment criteria (SSACs) were developed by ARCADIS and these are set out below

	Site Specific Assessment Criteria (SSAC) mg/kg			
	Neighbouring resident	Public footpath user	Trespasser - child	Trespasser - traveller
Arsenic	34,500	93,900	68.3	250
Lead	1.00E+6	1.00E+6	625	2260
Benzo(a)pyrene	2580	1,080	7.79	29.4
Complex cyanide	ND	ND	215,000	779,000
Free Cyanide	<i>1.00E+6</i>	595	83.6	258
Notes				
*	Theoretical Soil Saturation Limit presented for Trespasser (Children), considered to be the most sensitive receptor.			
Na	Not applicable			
ND	Results of risk assessment demonstrate pathway does not present significant level of risk.			
Italics	Target exceeds theoretical soil saturation limit. Concentrations above the soil saturation limit may indicate the presence of separate phase in soil, but do not necessarily present a significant risk. Where SSAC is greater than the theoretical maximum concentration in soil (1kg per kg), 1.0E+06 mg/kg presented as SSAC			

9.2 Complex and free Cyanide were not reported above the SSAC. Arsenic, Lead and Benzo(a)pyrene exceeded the SSAC for trespassers (children and travellers) in some locations. Therefore ARCADIS undertook statistical analysis to determine if these measured concentrations were significant. The methodology followed guidance on comparing soil concentration data with a critical value published in May 2008 by CL:AIRE and the Chartered Institute of Environmental Health.

9.3 The ARCADIS ESA and DQRA report found that Arsenic was below the SSAC of 68.3mg/kg when average concentrations across the site were considered. Benzo(a)pyrene was below the SSAC derived of 7.79mg/kg when average concentrations across the site were considered. Therefore, measured concentrations of arsenic and benzo(a)pyrene are not considered to represent SPOSH at 95% confidence level.

9.4 Lead was measured below the SSAC derived for Trespasser children and Trespasser traveller, when average concentrations from across the site were considered with the exception of one location. This outlier is considered to potentially represent a localised lead hotspot around soil sample location Z4048. ARCADIS report that it is considered unlikely that Trespassers (children or travellers) would be exposed to lead at the concentration identified in soil sample Z4048 for the length of time adopted within the assessment, given the limited size of the potential hotspot in relation to the size of the site. As such, measured concentrations of lead across the site are not considered to represent SPOSH.

10.0 Conclusions

10.1 The ARCADIS ESA and DQRA report concludes that:

- Given that generally, the measured concentrations of Contaminants of Concern (CoC) only marginally exceeded the EQS, and were considered to be consistent with the background concentrations as reported by EA & BGS, 2007 controlled waters and ecological receptors were not considered further in the assessment.
- None of the measured concentrations of CoC in soil exceeded the SSAC derived for public footpath users and neighbouring residents;
- Arsenic and benzo(a)pyrene in soil were measured at concentrations exceeding the SSAC protective of trespassers (children only). However, statistical analysis indicated that the true mean arsenic and benzo(a)pyrene concentration were below the SSAC at 95% confidence level.
- Lead was measured at concentrations exceeding the SSAC protective of trespassers (children and travellers). Statistical analysis indicated, with the exception of a lead outlier, that the true lead mean concentration was below the SSAC protective of trespassers (children and travellers) at a confidence level of 95%. The lead outlier was associated with soil sample location Z4048, which was considered to represent an isolated hot spot. Given the limited size of the hotspot in relation to the site, the exposure parameters associated with the trespasser (child and traveller) scenario were considered overly conservative. As such, the risk to human health was considered to be low.
- Asbestos was present in shallow soils in two of the 56 locations and could potentially pose a risk if mobilised. However, given the limited number of detections and type of asbestos present, the risk to human health is not considered significant.

10.2 The Borough Council reviewed the ARCADIS ESA and DQRA report and has approved the site investigation and risk assessment methodology and findings. **The information provided supports the conclusion that there is not an immediate risk to public health from contaminants in near surface soils.**

10.3 Appendix 4 sets out the Definition of Contaminated Land, significant possibility of significant harm to human health, Category Summary contained in the Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance. On the basis of this assessment, the Borough Council has concluded that the site does not meet the definition of contaminated land under Part 2A. Therefore the land would not be classified as Category 1 or 2 as defined in the Statutory Guidance.

10.4 The Borough Council has concluded that the land does not meet all the considerations in Category 4 (no risk or risk is low) and that the most appropriate category is Category 3. The Statutory Guidance states that land should be placed into Category 3 if the authority concludes that the strong case for taking action under Part 2A does **not** exist, and therefore the legal test for significant possibility of significant harm is not met. The Statutory Guidance '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.'

10.5 The statutory guidance 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.

11.0 Recommendations

11.1 The opinion of the Environment Agency should be sought regarding assessment of risks to controlled waters.

11.2 The Borough Council recommends that the land be placed in Category 3 as defined in the Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance.

11.3 The results of this inspection and risk assessment should be made available to interested parties in a written statement.

11.4 The owners of the land should take action to reduce risks outside of the Part 2A regime. This may include covering 'hotspots' or removing asbestos containing materials by hand picking.

11.5 Users of the land including casual recreational users, trespassers and groundworkers should observe normal health and safety precautions such as wearing gloves when in contact with the soil. Normal hygiene precautions should be followed such as hand-washing thoroughly after handling soil and before handling food or smoking.

11.6 Any proposals for groundworks or development must be discussed with the Borough Council's Environmental Quality Team to ensure that new contaminant pathways are not created.

11.7 This written statement applies only to the current use of the land. Should the use of the land change from vacant development land then the Part 2A risk assessment must be revised.

Abbreviations

ARCADIS	EC Harris (UK) Limited
BCKL&WN	Borough Council of King's Lynn and West Norfolk
CoC	Contaminants of Concern
CSM	Conceptual Site Model
DEFRA	Department for Environment, Food and Rural Affairs
DQRA	Detailed Quantitative Risk Assessment
EA	Environment Agency
ESA	Environmental Site Assessment
EQS	Environmental Quality Standard
GAC	Generic Assessment Criteria
GQRA	Generic Quantitative Risk Assessment
NORA	Nar Ouse Regeneration Area
SSAC	Site Specific Assessment Criteria
SPOSH	Significant Possibility of Significant Harm
XRF	X-Ray Fluorescence

Appendices

Appendix 1 – Site Plan

Appendix 2 – Arcadis EC Harris ESA and DQRA report

Appendix 3 – Risk Assessment Methodology & Descriptors

Appendix 4 - Definition of Contaminated Land, significant possibility of significant harm to human health, Category Summary

Appendix 1 – Site Plan

Site Plans

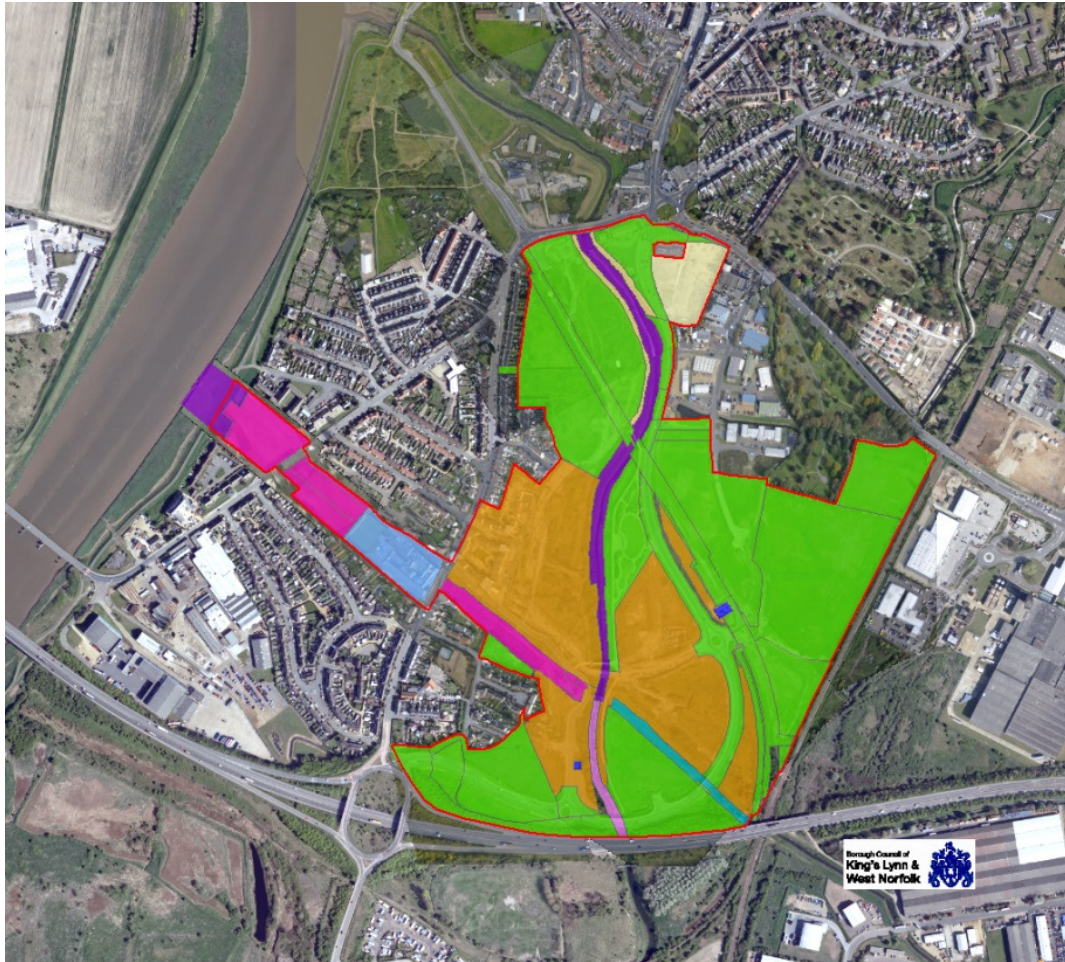


Figure 1: Site location within the Nar Ouse Regeneration area - Morstons land coloured orange

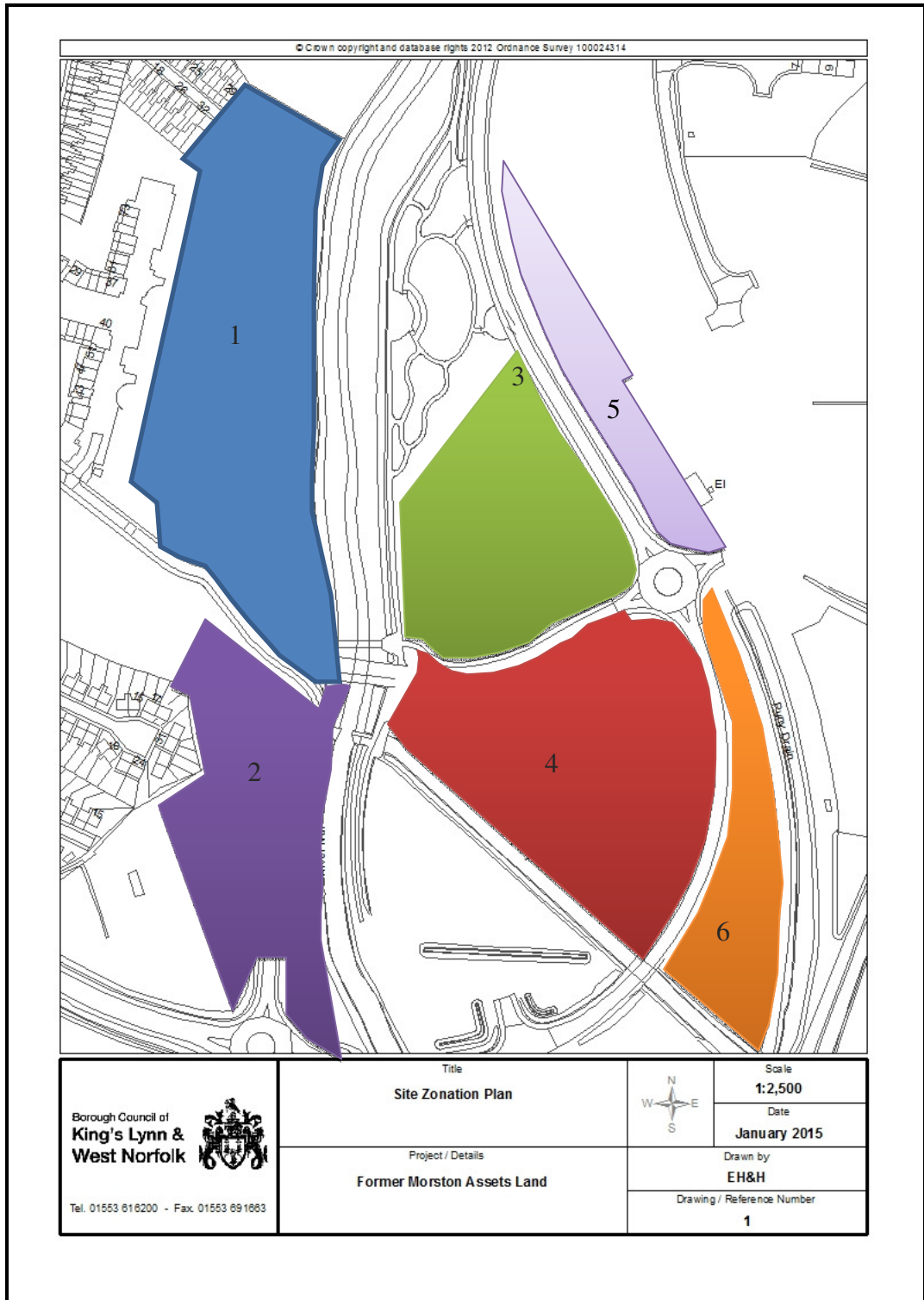


Figure 2: Zone Plan

Appendix 2 – Arcadis EC Harris ESA and DQRA report

Appendix 3 – Risk Assessment Methodology & Descriptors

RISK ASSESSMENT METHODOLOGY AND DESCRIPTORS

CLR11 outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. Under CLR11 three stages of risk assessment exist: Preliminary, Generic Quantitative and Detailed Quantitative. As the list of potential Part 2A sites have been constructed as a mapping exercise, a Preliminary Risk Assessment has been conducted to ascertain its correct risk rating. Dependent upon the results of the Preliminary Risk Assessment a detailed assessment will be undertaken (Desk Study, Site investigation) which will collate all the existing information pertaining to the site and construct a Conceptual Site Model. Both the Preliminary Risk Assessment and the outline conceptual model will identify potentially complete pollutant linkages (source-pathway-receptor) and is used as the basis for design of the site investigation. The outline Conceptual Site Model (CSM) is updated as further information becomes available, for example as a result of the site investigation. Production of a CSM requires an assessment of risk to be made. Risk is a combination of the probability of an event occurring and the magnitude of its hazard.

Therefore, in order to assess risk both the probability and the hazard of an event must be taken into account. The Council has adopted guidance provided in CIRIA C552 for use in the production of Conceptual Models. The probability of an event can be classified on a four point system using the following terms and definitions based on CIRIA C552:

- 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 probability: 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 using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- 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');
- 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.

As this report is to assess contaminated land under Part 2a of the Environmental protection Act 1990 the fourth category has been removed as the consequences do not fit with the test for 'significant' harm as designated within Contaminated Land Statutory Guidance, April 2012.

Once the probability of an event occurring and its severity have been classified, a risk category can be assigned from the table below.

		Hazard		
		High	Medium	Low
Probability	High Probability	Very High Risk	High Risk	Moderate Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk
	Low Probability	Moderate risk	Moderate/Low Risk	Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk
Very High Risk	<p>There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening</p> <p>This risk, if realised, is likely to result in a substantial liability.</p> <p>Urgent investigation (if not undertaken already) and remediation are likely to be required.</p>			
High Risk	<p>Harm is likely to arise to a designated receptor from an identified hazard.</p> <p>Realisation of the risk is likely to present a substantial liability.</p> <p>Urgent investigation (if not undertaken already) if required to clarify the risk and to determine the potential liability. Some remedial work may be required in the longer term.</p>			
Moderate risk	<p>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.</p>			
Moderate/Low risk	<p>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.</p>			
Low Risk	<p>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.</p>			
Very Low Risk	<p>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.</p>			

**Appendix 4 -
Definition of Contaminated Land,
significant possibility of significant harm
to human health, Category Summary**

DEFINITION OF CONTAMINATED LAND
SIGNIFICANT POSSIBILITY OF SIGNIFICANT HARM TO HUMAN HEALTH
Category Summary

(from Environmental Protection Act 1990:
Part 2A Contaminated Land Statutory Guidance, DEFRA 2012)

Category 1: Human Health

4.19 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.

Category 4: Human Health

4.20 The local authority should not assume that land poses a significant possibility of significant harm if it considers that there is no risk or that the level of risk posed is low. For the purposes of this Guidance, such land is referred to as a “Category 4: Human Health” case. The authority may decide that the land is a Category 4: Human Health case as soon as it considers it has evidence to this effect, and this may happen at any stage during risk assessment including the early stages.

4.21 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).

4.22 The local authority may consider that land other than the types described in paragraph 4.21 should be placed into Category 4: Human Health if following a

detailed quantitative risk assessment it is satisfied that the level of risk posed is sufficiently low.

4.23 Local authorities may decide that particular land apparently matching the descriptions of paragraph 4.21 (b) or (d) immediately above poses sufficient risk to human health to fall into Categories other than Category 4. However, such cases are likely to be very unusual and the authority should take particular care to explain why the decision has been taken, and to ensure that it is supported by robust evidence.

Categories 2 and 3: Human Health

4.24 For land that cannot be placed into Categories 1 or 4, the local authority should decide whether the land should be placed into either: (a) Category 2: Human Health, in which case the land would be capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health; or (b) Category 3: Human Health, in which case the land would not be capable of being determined on such grounds.

4.25 The local authority should consider this decision in the context of the broad objectives of the regime and of the Government's policy as set out in Section 1. It should also be mindful of the fact that the decision is a positive legal test, meaning that the starting assumption should be that land does not pose a significant possibility of significant harm unless there is reason to consider otherwise. The authority should then, in accordance with paragraphs 4.26 to 4.29 below, decide which of the following two categories the land falls into:

(a) **Category 2:** Human Health. 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.

(b) **Category 3:** Human Health. 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.

4.26 In making its decision on whether land falls into Category 2 or Category 3, the local authority should first consider its assessment of the possibility of significant harm to human health, including the estimated likelihood of such harm, the estimated impact if it did occur, the timescale over which it might occur, and the levels of certainty attached to these estimates. If the authority considers, on the basis of this consideration alone, that the strong case described in paragraph 4.25(a) does or does not exist, the authority should make its decision on whether the land falls into Category 2 or Category 3 on this basis regardless of the other factors discussed in paragraph 4.27.

4.27 If the authority considers that it cannot make a decision in line with paragraph 4.26, it should consider other factors which it considers are relevant to achieving the objectives set out in Section 1. This should include consideration of:

(a) The likely direct and indirect health benefits and impacts of regulatory intervention. This would include benefits of reducing or removing the risk posed by contamination. It would also include any risks from contaminants being mobilised

during remediation (which would in any case have to be considered under other relevant legislation); and any indirect impacts such as stress-related health effects that may be experienced by affected people, particularly local residents. If it is not clear to the authority that the health benefits of remediation would outweigh the health impacts, the authority should presume the land falls into Category 3 unless there is strong reason to consider otherwise.

(b) The authority's initial estimate of what remediation would involve; how long it would take; what benefit it would be likely to bring; whether the benefits would outweigh the financial and economic costs; and any impacts on local society or the environment from taking action that the authority considers to be relevant.

4.28 In making its consideration in regard to paragraph 4.27(a) and (b), the local authority is not required to make a detailed assessment. For example, the consideration should not necessarily involve quantification of the impacts, particularly if the authority considers it is not possible or reasonable to do so, and the authority is not expected to produce a detailed cost-benefit or sustainability analysis. Rather it is expected to make a broad consideration of factors it considers relevant to achieving the aims of Section 1.

4.29 If, having taken the above factors into account, the local authority still cannot decide whether or not a significant possibility of significant harm exists, it should conclude that the legal test has not been met and the land should be placed in Category 3.