



**Contaminated Land
Strategic Inspection Report**

**Wissington Railway/Pipeline and Settlement Beds,
Wissington, King's Lynn**

Reference 021449

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Environment and Planning
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Executive Summary

The Borough Council of King's Lynn and West Norfolk has published a contaminated land inspection strategy which sets out how it proposes to fulfil its legal responsibilities for inspection under the contaminated land regime. The legal definition of Contaminated Land in Part 2A of the Environmental Protection Act 1990 (Part 2A) relates to unacceptable risks to human health and/or the wider environment. The contaminated land strategy details how sites are prioritised and the arrangements for strategic inspection. Strategic inspections identify where we may need to find out more about the land or where we don't need to take any more action.

The land associated with the operational sugar beet factory operated by British Sugar at Wissington has been identified for inspection. The site consists predominantly of settlement beds and has previously had a railway running to the west of site. Given the former use of the land and the sensitivity of the surrounding area, an initial assessment of the site has been undertaken to assess the potential for harm to human health, property, the environment, groundwater and surface waters under Part 2A.

From the evidence gathered during the assessment of the site history and a site walkover, the following can be stated:

- The site was historically fields before being developed.
- The site did have a railway passing along the west of the site.
- A pipeline crosses from the sugar factory to the settlement beds.
- The site operates settlement lagoons to remove soil from waste water.
- The site operates under IPPC Regulations, the Reservoir Regulations and conditions placed on it by the Planning Regime.

The Potential Hazard and the Risk associated with the site has been assessed. The site's current operations are regulated, and no evidence was found of any unregulated activity. Contact by a vulnerable receptor is considered to be very limited. Therefore, the overall risk is LOW.

The site is not considered to represent a potential risk to human health and the environment under Part 2A of the Environmental Protection Act 1990 based on the information gathered and will not be prioritised for further detailed inspection. If additional information is discovered, or changes are proposed to the site, then the site should be reassessed.

Strategic Assessment

The Borough Council of King's Lynn and West Norfolk has published a contaminated land inspection strategy which sets out how it proposes to fulfil its legal responsibilities for inspection under the contaminated land regime. The legal definition of Contaminated Land in Part 2A of the Environmental Protection Act 1990 (Part 2A) relates to unacceptable risks to human health and/or the wider environment. The contaminated land strategy details how sites are prioritised and the arrangements for strategic inspection.

Strategic inspections identify where we may need to find out more about the land or where we don't need to take any more action. This report is a summary report of the strategic inspection carried out following prioritisation of sites in 2013 and is updated based on current information about the site.

Location	The site's location is on College Road, Wisington NGR 566245 298103. The closest postcode is PE33 9RU. The site is shown in Figure 1 in the appendices.
Previous site use	The site is formerly agricultural land and has previously had a railway line along the west of site.
Present Site Use	The site now operates settlement lagoons to remove soil from waste water as shown in Figure 1.
Prioritisation Score	In the map based screening for priority sites the site was identified due to the potential activities occurring on the site of a principal aquifer with a high vulnerability. Initial screening showed that the activities which are being undertaken at this time are generally considered to be non-contaminative, so further detailed inspection was not carried out.
Ownership	The site's owners have been consulted and this report will be made available for information.
Previous Investigation	No reports are known for the site.
Geology	The OS Terrain 50 digital height dataset indicates that the site is at 10m above ordnance datum (maOD). The superficial geology is recorded as being predominantly Peat, The north of the site however overlaps River Terrace Deposits. The bedrock changes from northwest to southeast. Starting from the northwest, the geology is classified as the Roxham member and Runcton member (undifferentiated) followed by the Mintlyn Member and then the Carstone Member. (BGS digital geology).
Hydrogeology	The site is on a Principal Aquifer with an Intermediate Vulnerability. It is not within a Source Protection Zone for drinking water and no private water supplies are recorded within 1km.
Hydrology	The nearest major water feature is the River Wissey directly south of the site.
Local Authority Pollution Control	No LAPPC processes are recorded on site or within 500m of the site.
Environment Agency permitting and exemptions	The Environment Agency records the site as part of the larger Wisington Sugar Factory, located to the south of the site. The site operates under an environmental permit issued by the Environment Agency and has waste exemptions U6 (Using sludge to re-seed a wastewater treatment plant) and D6 (Disposal by incineration) associated with the processes undertaken on site.

	Other waste operations are regulated under IPPC Regulations, Permit number EPR/BX2108IQ, for disposal of non-hazardous waste involving physico-chemical treatment and biological treatment.
Environment Agency Consultation	Not consulted as not within a source protection zone.
Planning History	A search was undertaken of the Borough and County Council planning permissions granted for the site. The site has had permission for the topsoil conditioning processes since 1997 to present. With various applications for the expansion or reapplication for the permitted use.
Historical Maps (E-map Explorer)	Enclosure Map 1800 - 1850 – Not available Tithe map circa 1840 – The majority of the site is fields, with the exception of 'Five Mile House' which abuts the River Wissey and what will become College Road. Ordnance Survey 1st Ed. 1879-1886 – The site is as described above with the exception that bulldog bank is labelled along the west of site and a sluice and body of water to the north of site. A track runs across the site.
Historical Maps (BCKLWN)	1843 – 1893: Fields on site, bulldog bank present along the west of site and a sluice and body of water to the north of site. 1891 – 1912: The site is depicted as shown above. Draining pump now on the north of site. 1904 – 1939: North of site, Available, same as above other than railway present west. 1945 – 1970: Railway line to the west of site. Settlement beds present.
Aerial Photographs	1945 – 1946 MOD Aerial Photograph – 'largely fields road/track running along the west of site, ponds on the north of site where the sluice is labelled in 1843 – 1893 historical maps. 1988 Aerial Photograph – The railway line is no longer shown. settlement beds/lagoons present across site. 1999 Aerial Photograph – Settlement beds/lagoons present across site. 2006-09 Aerial Photograph – Settlement beds/lagoons present across site. Windrows are seen to the northwest of site. Glasshouse seen to the west of site. 2023 Aerial Photograph – Largely unchanged. Glasshouse to the west extended
Site Walkover	A site visit was carried out by one of BCKLWN Contaminated Land Officers on 16/02/2024 and the following was noted. The site was accessed from across college road past the LIMEX storage. A walkover was conducted led by Daniel Vincent-Parker Development Environment Manager at Wissington British Sugar Factory. We walked over the site while Mr VP gave an explanation of the processes of what occurs on site, where the inputs into the site are

coming from, and the restrictions that are part of their environmental permit.

The process is reported to move through a system of settlement pools in a roughly anti-clockwise direction starting from the pool southeast, circulating up across and down to the south west pool. Soil is removed yearly in some pools to maintain capacity, however times between this activity vary due to different rates of deposition as the process progresses through the pools.

The reservoirs marked in orange below are not related to this process and are to retain water to reduce the need for abstraction. (See photographs No 1-6 in Appendices).



Potential Hazard

The site is formerly agricultural land with a former railway running alongside the west of site. The former railway line is now seen as road used to access the nursery to the west. The railway has not been in use for approximately 70 years. From the evidence from site walkover it can be seen that the reservoirs are maintained and managed. A number of waterfowl were seen using the reservoirs at the time of the visit. The activity, abstractions and discharges are covered by environmental permit and the site owners are in touch with the Environment Agency should any problems occur.

The activities which are being undertaken on site are generally considered to be regulated and non-contaminative. Previous to its current use the site was agricultural land and is unlikely to represent a significant likely source for contamination. No other sources of

	contamination not previously considered were encountered during the walkover. Therefore the hazard is assumed to be LOW
Summary Conceptual Site Model and Assessment of Risk	<p>After assessing the site the risk has been quantified as detailed below.</p> <p>Human health The site is closed to access and is surrounded by a chain link fence, as such it is considered that very few people would access to site and these would be appropriately trained or supervised. The material being processed on site is soil which has originated from agricultural fields and as such should not be significantly contaminated. Therefore it is considered that the likelihood of humans coming into contact with contamination is Unlikely and the risk is therefore Very Low.</p> <p>Property No residential buildings exist near the site. There is a large glasshouse to the west of the site and agricultural buildings seen on a site visit to be used for the storage of soil products before sale. There are no buildings near the settlement beds, and ground gas emissions are considered Highly Unlikely. The former railway line follows the field boundaries and as such does not come into contact with any crops being grown as such it is considered Highly Unlikely that the former railway line will have any effect on the property. Therefore the risk is considered to be Very Low.</p> <p>Environment No relevant receptors under Table 1 of the statutory guidance are present on, or within 500m of the site. The settlement beds are in a constant state of flux, either being filled, allowed to settle or being excavated. This would generally indicate a low environmental value. However the surrounding area is an open wetland and farm land which attracts a wide variety of bird life and the open areas of water provided by the settlement beds are used by a wide variety of avian species. Therefore by maintaining the settlement beds the environmental value of the site has increased. It is also considered that the processing of the soil materials would increase the micro fauna biodiversity on site. As the former railway has not been in place for approximately 70 years any potential contamination would have degraded, dispersed and mineralised during the intervening time and is not considered to represent a significant likelihood of harm. Therefore it is considered to be Unlikely that the site is affecting the environment and that the associated risk for the environment would be Low.</p> <p>Ground/surface water The bedrock beneath the site is classed as a principal aquifer with a high vulnerability. The activities which are being undertaken at this time are generally considered to be non contaminative. Previous to its current use the site was agricultural land and is not considered to represent a likely source for any significant contamination. This would indicate that the sites operation do not pose a risk to groundwater via the leaching of mobile contaminants from the soils on site as the soils should not contain high levels of pollutants. Therefore the possibility</p>

	<p>of a significant impact occurring is considered to be Unlikely and the risk to groundwater is Low.</p> <p>The nearest major water feature is the River Wissey which crosses the site. The material and processes operated on site are generally non-contaminating. Discharges from site are monitored and controlled and as such it is considered that the likelihood of the former landfill affecting it Very Unlikely and the risk is Low.</p> <p>The site operates under its Environmental permit and conditions placed on it by the Planning Regime.</p> <p>The site's current operations are regulated and no evidence was found of any unregulated activity. Contact by a vulnerable receptor is considered to be very limited. Therefore, the overall risk is LOW.</p>
<p>Conclusions & Recommendations</p>	<p>The Borough Council considers that based on information available at the time of this strategic inspection, no significant source of contamination was indicated, and no relevant contaminant linkage has been established. Based on this assessment the land is unlikely to be considered Contaminated Land as defined in Part 2A EPA 1990 and the site will not be prioritised for detailed inspection.</p> <p>This assessment is based on the site's current use and is valid providing no changes are made to the site's use. No further assessment of the site is considered necessary under Part 2A unless additional information is discovered.</p> <p>If the land use changes or it is redeveloped, this land may require further investigation. The National Planning Policy Framework (NPPF) states that responsibility for securing a safe development rests with the developer and/or landowner. The Borough Council will require that adequate site investigation information, prepared by a competent person is presented to ensure that the site is suitable for any proposed new use.</p>

Appendices

16/02/2024 Photographs



Aerial photography showing the locations of photographs 1-6.



Photograph 1. The Initial settlement bed.



Photograph 2. Initial Settlement bed from the western bank facing east.



Photograph 3. Finer material in a adjoining settlement tank.



Photograph 4. Heavy deposition in a settlement bed on the north of site.



Photograph 5. Settlement beds towards the end of the process, identified as the 'fingers' whilst on the walkover.



Photograph 6: Secondary initial settlement bed with material flowing in.

Figures



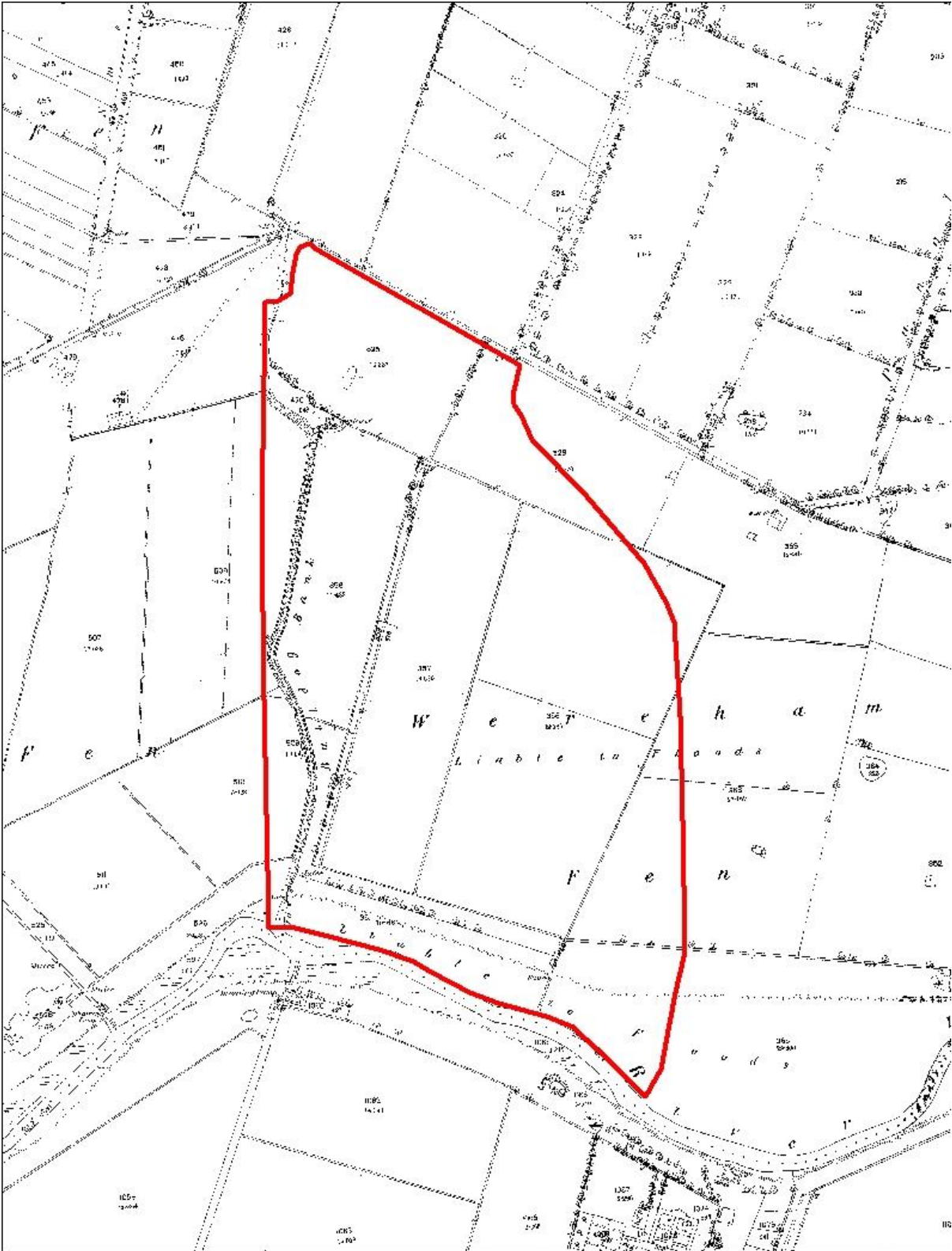
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Map Project / Details
Aerial Photography 1940's **Wissington Railway/Pipeline
and Settlement Beds,**
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Drawn by Date Scale
AMW **January 2024** **1:6,000**
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021449/04





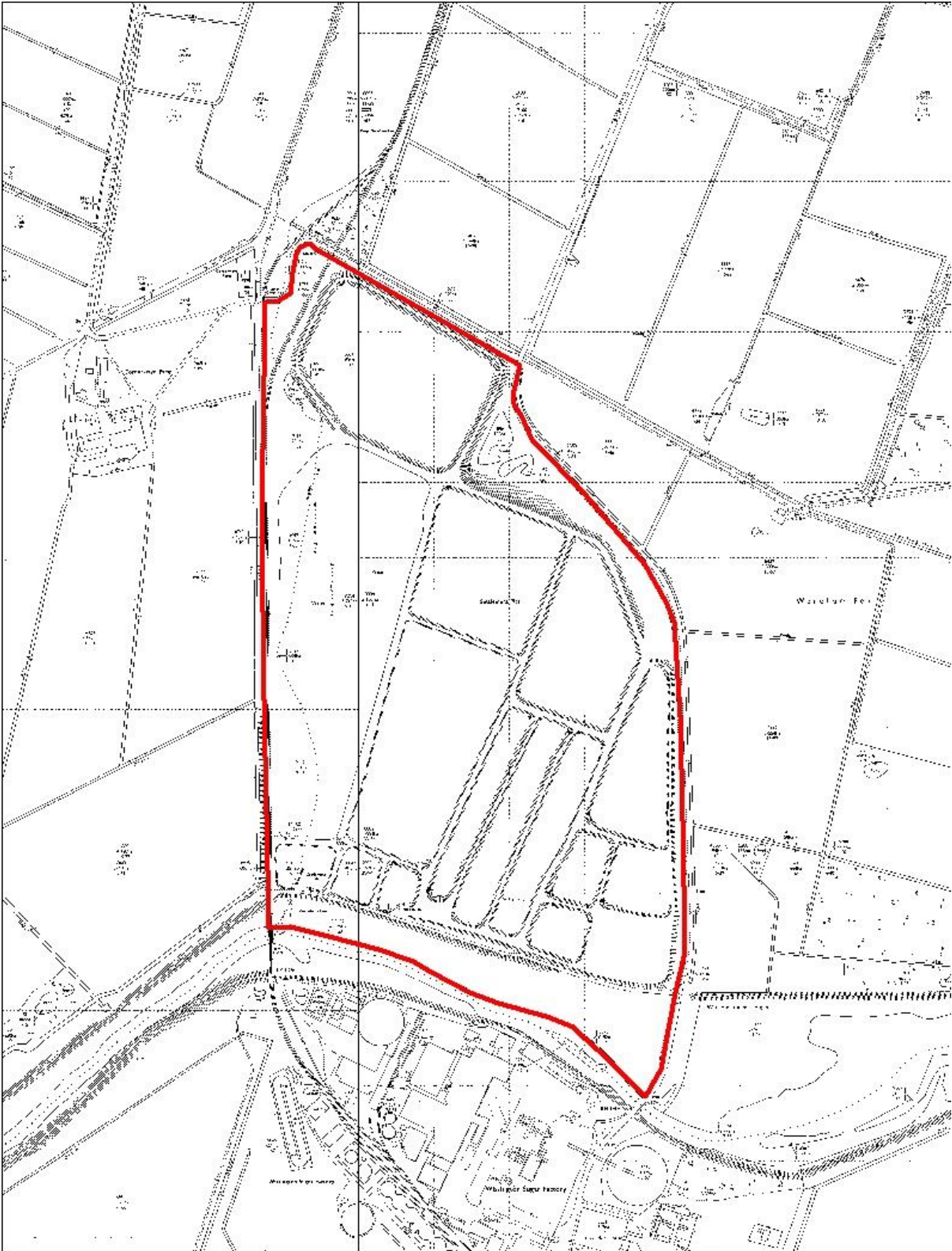
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Map
**Epoch 1
 1843-1893**
 Project / Details
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Map
**Epoch 5
 1945-1970**

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