



Manor Farm, North Runcton
Contaminated Land Investigation
Non-Technical Summary



Contents

Section	Page
1. Site History	1
2. Site Investigation	1
3. Contaminants, Pathways and Receptors	3
4. Conclusions	4

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1. Site History

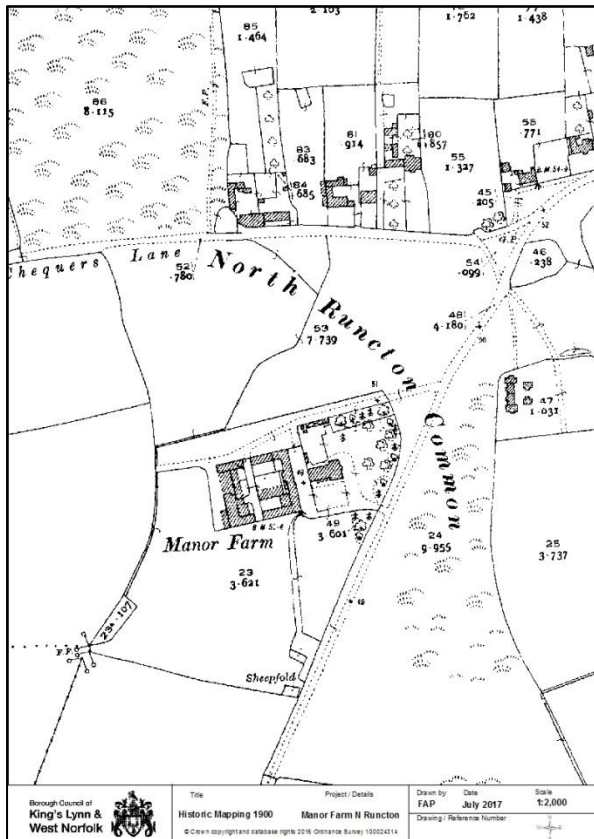


Figure 1: Manor Farm map 1900s

The site at Manor Farm, North Runcton includes farm buildings, yards and some rough grassland. A review of the old maps dated 1872 to 1999 was carried out as part of this research. These maps show previous land use and changes over time. Information on residential or commercial land use, natural water features and the many man-made water features can be seen on maps.

Originally a Victorian 'model farm', it is in a rural village and has been used as a transport yard in the last 10 years and more recently for an illegal waste processing activity.

Figure 1 shows the layout of Manor Farm on the historic Ordnance Survey mapping.

Following a report of a major waste wood fire in January 2017, the borough council were involved in the first response alongside the emergency services. Public Health England assessed the risk to health and advice was given to local residents to avoid smoke and ash from the fire.

2. Site Investigation

A recovery group was set up to manage the next actions on the site once the fire was under control. The borough council carried out research to see if there was likely to be a risk of harm to people, property, water or the wider environment and if the land would be 'contaminated land' as defined in the Environmental Protection Act 1990. The first report (Phase 1 preliminary risk assessment) showed that more needed to be done and that samples of the ash material would need to be collected and sent for laboratory testing to see what contaminants were in it.

The main risks that needed investigation were people coming into contact with the ash and also contaminants in the ash getting into a nearby watercourse. The Environment Agency carried out water and sediment sampling on the watercourses.



Figure 2: A dust gauge in a residential garden. Taking samples from the ash

Dust gauges were used to estimate how much ash was being deposited near houses and the types of materials that were in the dust. Samples were taken of ash from the site of the fire and sent to a laboratory. The samples were analysed for contaminants that can be found in waste wood fires. Figure 3 shows where samples were taken.

3. Contaminants, Pathways and Receptors

Table 1 below shows the contamination that was investigated in the site investigation and the 'receptors' that were considered.

Source	Pathway	Receptor	Location
Wood treatment & products of incomplete combustion, waste materials: Metals, Petroleum Hydrocarbons, Semi-Volatile Organic Compounds, Dioxins and Furans, Asbestos	Direct contact Ingestion Inhalation	Humans	Houses 70m to >300m to the north east, north and west
	Direct Contact Ingestion Inhalation	Property (Buildings & horses) (horses)	On site, adjacent and nearby houses On site and adjacent
	Direct contact	Environment	Environmental receptors listed in the Contaminated Land Guidance
	Direct contact	Controlled water (Surface water)	Watercourse to the west of Manor Farm and connected watercourses
	Direct contact	Controlled water (Ground water)	Groundwater beneath the site

Table 1: conceptual site model

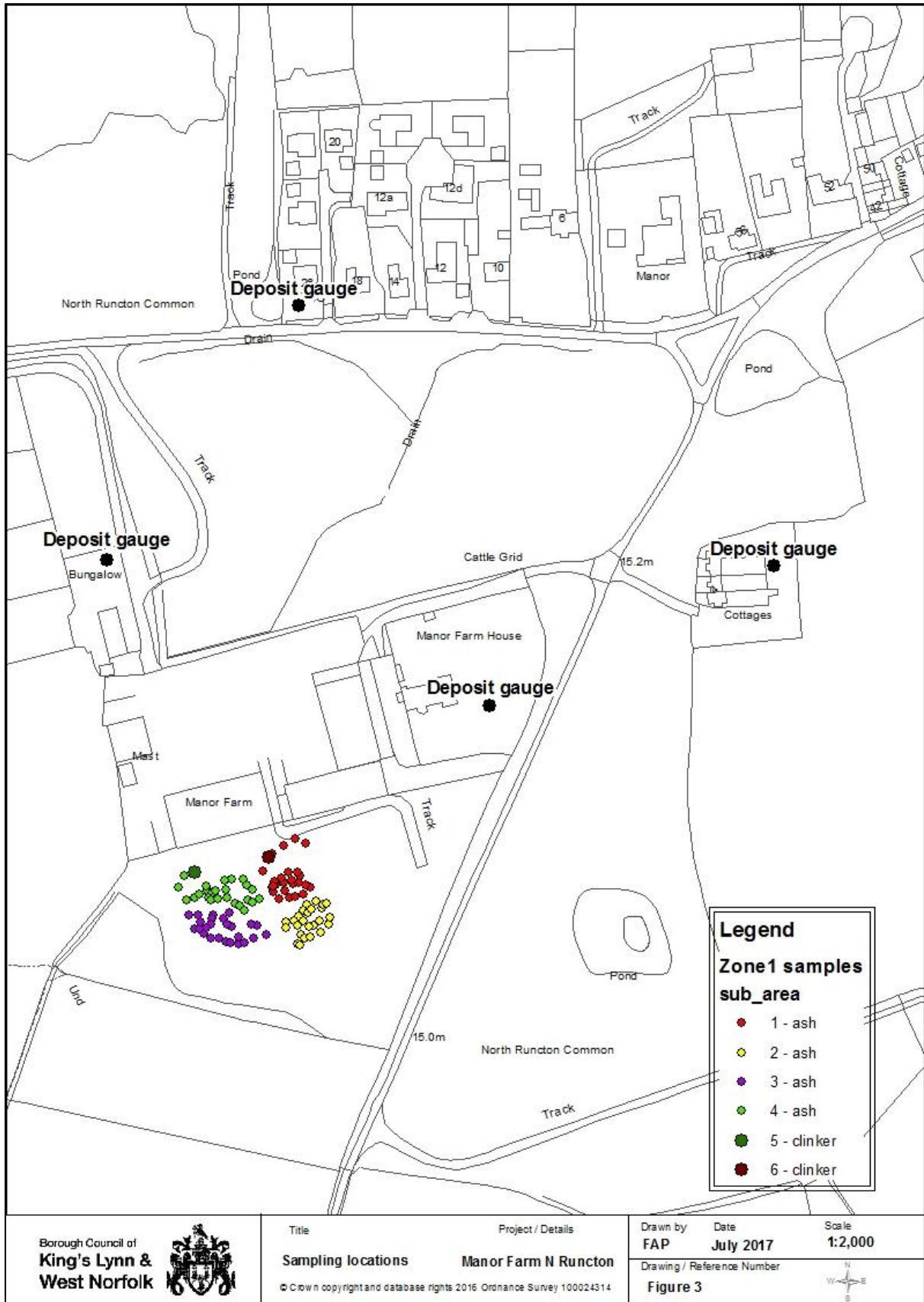


Figure 3: Location of ash and deposit gauge samples

Samples were analysed for heavy metals, petroleum hydrocarbons, dioxins & furans, semi volatile organic compounds, polyaromatic hydrocarbons and asbestos. These were substances that could have been present in the waste material or can be produced during a fire. Where contaminants were detected in the ash samples by the laboratory, the results were compared to acceptable levels for residential and commercial land for receptors located on the site. The laboratory analysis showed that the levels of contaminants in the ash were not likely to be harmful to human health or to water. Asbestos was not detected in any of the samples. The screening showed that even if the receptors were located on Manor Farm itself, the contamination isn't likely to cause significant harm to health or the wider environment. There are full details of the laboratory analysis and risk assessment in the Phase 1b report.

Once the fire was managed, dust from Manor Farm, measured near houses, was not high. On recent visits, odour in the area was slight and ash couldn't be seen nearby. There is no evidence that significant amounts of contamination are moving from the Manor Farm site in dust or water to where they could cause harm.

4. Conclusions

Based on the most recent investigation, the risk to people, crops, produce, livestock, animals and buildings was assessed as low. Health advice is still to close doors and windows if there is ever a strong odour or severe dust from Manor Farm. Home grown produce is safe to eat providing it is washed as normal. The chemical analysis of water and sediment showed that the risk to watercourses was also low.

The most recent report (Desk Study and Preliminary Risk Assessment, Phase 1b) shows that there is little reason to consider that the land at Manor Farm would pose an unacceptable risk. Based on this assessment, the authority has concluded that the land does not meet the definition of contaminated land in Part 2A of the Environmental Protection Act and that the land is not considered contaminated land.

The Phase 1 and Phase 1b reports are available on our Contaminated Land webpage.