



Document Type	Supporting information: Application for Permit, Bespoke Waste Operation
Document reference	SCR.WZ.2017
Description	Site Condition Report
Site	Former airfield Land off A372 Westonzoyland ST 36201 34022
Prepared By	Rebecca Bomers Towens of Weston Ltd Plot 2 Warne Road Weston Super Mare Somerset BS23 3UU
Issued to	Environment Agency

Document Control

Author	Date	Signature
Rebecca Bomers	12/09/2018	
Authorised	Date	Signature
Nick Towens	12/09/2018	
Revision	Date	Detail of change

1 Site Condition

1.1 Location and Setting

The proposed development is located on land off the A372, Westonzoyland, Somerset; National Grid Reference ST 36208 34029.

A site location plan is attached within Appendix B as figure B6.170306.

The site consists of a former airfield and an area of grass and dirt, formerly used as a motorbike racing track. The main area of the site that consists of the former airfield has, until recently, been used as an illegal waste site, namely storing wooden pallets.

An aerial view map, taken in 2017 shows the pallet storage and motorbike track. This is shown in Appendix A on map reference WZ.2017.AV

The nearest residential properties to the site are caravans located on a caravan park, to the South-East and are approximately 70 metres away.

The next nearest residential property is Manor Farm, located 900 metres to the North-West of the site.

Other occupied sites include an industrial estate adjacent to the North and East boundaries of the site.

1.2 Environmental Setting

Data searches were carried out using Natural England's database found at www.magic.gov.uk and the Environment Agency's "what's in your backyard?" search facility found at <http://apps.environment-agency.gov.uk/wiyby/>. A more detailed search using Landmarks Envirocheck was also conducted and the full report is contained within Appendix D; the below information is summarised from the full report.

1.2.1 Geology

Reference to regional geological plans indicates the site to be underlain by alluvium which in turn is underlain by Mercia Mudstone.

1.2.2 Hydrogeology

Underlying alluvium is classed as a non-aquifer whilst the Mercia Mudstone is classed as a minor aquifer or secondary aquifer. The site is not within a groundwater protection zone.

There are five groundwater abstractions reported within 1000m of the site and are detailed in Table 1.0 below:

Distance from site (metres)	Licence holder	Licence reference	Use
102	Miss and Mr J&R Highland and Wheaton	16/52/008/G/107	Spray irrigation
242	Mr D F Welsh	165208G105	Not specified
242	Miss J Highland	16/52/008/G/105	General farming and domestic
444	Mr D F welsh	165208G107	Spray irrigation and agriculture
449	Mr D F Welsh	15/52/008/G/107	Spray irrigation - direct

1.2.3 Surface Water

The nearest surface water is located 60 metres to the South-East of the site and forms part of an intricate drainage system unique to the Somerset Levels and Moors, where water is penned-in in the summer months to aid crop irrigation and water supply to grazing animals. When not penned-in the drainage system is pumped into the River Parrett catchment.

The nearest surface water quality monitoring point is to the North of the site in the Kings Sedgemoor Drain. The data for this was collected in 2009 and categorises the water quality as E, on the scale of A-F where A is very good and F is very poor.

There is no existing surface water drainage on the site, rainfall currently percolates into the subsoil. There is no natural flow as the site is level. The surrounding rhynes are pumped.

There are no surface water abstractions within 1000m of the site.

There are no discharge consents are within 1000m of the site.

1.2.4 Site History

The site maps showing site history are located within Appendix C.

The following timeline can be drawn from the maps:

1886 – Agricultural land

1904 – Agricultural land

1962 – Area shows as an airfield but no structures or runways are in place, assumed to be a grass airfield

1966 – Area shows the concrete runway is now in place on the airfield

1974-79 Runway is still in place but airfield is marked as disused.

1990 – First aerial view shows pallets covering the site and a caravan park located to the south-east of the site

2017 – As 1990 but with more pallets on site and a motorbike track now to the south of the site.

1.2.5 Statutory Searches

1.2.5.1 Registered activities

There are no registered landfills within 1000m of the site.

1.2.5.2 Pollution incidents

There have been five substantiated pollution incidents within 1000m of the site and these are summarised in Table 2.0 below

Date	Distance from site (metres)	Impact to air	Impact to land	Impact to water	Pollutant
16/10/12	0	3	2	4	Waste - tyres
19/01/12	0	2	2	3	Not identified
05/03/12	0	2	2	3	Smoke
17/04/12	116 North East	3	2	3	Blood & Offal
17/10/13	228 North	4	2	4	Oils, batteries, metal, tyres, vehicle parts.

In summary, none of the above are thought to have a lasting impact on the site.

1.2.5.3 Designated sites

To the South, South-East and South-West of the site is a site of special scientific interest (SSSI). This SSSI is the Langford and Weston.

Natural England (NE) have been consulted. They acknowledge that the prevailing wind is in an opposite direction from the SSSI but raised concern that any high dust levels may affect the designated grasses. We have installed a dust suppression system on-site and dust and particulates, if arising, will be managed in accordance with our Environmental Management System, which covers this scenario.

They are concerned that the adjacent SSSI may be a resting point for birds en-route to Kings Sedgemoor SSSI, which is an important site for wintering birds; the adjacent site is not however designated for birds. They have advised that anything above 3db

above background noise levels may disturb birds. We instructed Wardell-Armstrong to conduct a noise survey. The findings of this show that there may be a moderate impact from noise for the Langford and Weston SSSI but no impact for any other sensitive receptor; The report states that the moderate impact can be mitigated by a simple 6ft fence.

NE also suggested that the site may be inhabited by reptiles. We instructed First Ecology to conduct a reptile survey. The findings of this show that no reptiles are on or surrounding the site.

A general ecological impact assessment was conducted for the site and found that *“No protected or invasive, non-native species of plant were identified and the habitats within the site which will be impacted by the proposed development were not deemed to provide critical resources for any other protected or notable species of animal. In particular, species which are considered likely to be absent from the site or may be present but will not be adversely impacted by the proposed development are as follows:*

- *Great crested newts*
- *Badgers*
- *Bats*
- *Dormice*
- *Otthers*
- *Water voles*
- *White-clawed cray-fish.”*

Another concern, although minor, is that surface water run-off potentially containing polluting substances may find its way into the rhyne system of the SSSI. We have a full drainage plan in place to capture surface water run-off from all areas where waste is deposited. We have included this in the risk assessment and the potential risk is very low.

The full NE report is attached in Appendix F.

Drainage plan is attached with the permit application as is contained within the Flood Risk Assessment and drainage report, reference HES Drainage and FRA.

1.3 Baseline Data

1.3.1 Sampling

It is understood from local knowledge that the operator of the former pallet yard also undertook other, possibly illegal activity, including the burning and burying of waste. For this reason Towns have performed full analysis of the soil and groundwater at site, with samples taken from strategic locations across the site in order to achieve fair representation. At each location samples were taken from the surface, sub-surface (2metres) and groundwater. The sample locations can be seen in Appendix E.

The following pollutants were sampled for, in both the soil and groundwater:

- Petroleum hydrocarbons, including polyaromatic and polycyclic.
- Persistent organic pollutants (POP's)
- Benzene, Toluene's, Ethylene's and Xylenes (BTEX)
- Volatile Organic Compounds (VOC's)
- Cyanides
- Arsenic
- Boron
- Metals
- Ph
- Asbestos

1.3.2 Results summary

With the exception of sample point TP3, no contamination was found.

TP3 showed hazardous levels of Petroleum Hydrocarbons and Benzo(a)anthracene, an element of Petroleum Hydrocarbons. Towns believe the area around TP3 has historically been used as a rubbish tip and evidence of old oil drums was found buried here. These wastes could explain the elevated levels as mentioned above. The elevated levels could also be attributed to the existing runway which is constructed of asphalt containing coal-tar.

This area has subsequently been capped with a thick layer of concrete to ensure a level surface across the site.

1.3.1 Laboratory Results

Full laboratory results and a summary of the results produced using HazWasteOnline, can be found in Appendix E.

1.4 Summary

The proposed permitted area has a footprint of approximately 1.214 ha.

The site consists of a former airfield, with agricultural land to the North, South and West. The East of the site forms part of an industrial estate known as Springmead Industrial Estate.

The site was originally green field agricultural land prior to 1962 when it was reclassified as a runway, a concrete runway then appeared in 1966. Dating back to at least 1990, the site was used to store old wooden pallets. None of these uses is likely to have caused any land contamination of the site. However, a small area in the middle of the runway was found to contain some refuse, including redundant oil drums. Because of this, Towns decided to undertake sampling across the site to determine if there was any contamination; a small area of contamination was found but has since been capped with a thick layer of concrete to prevent any leaching and to ensure a level, impermeable surface across the site.

There is no available historical data to suggest any contamination of the site.

Environmental concerns were raised by Natural England, relating to impacts on the local SSSI's but these concerns have subsequently been addressed through various surveys, risk assessments and preventative measures put in place. There is no other water, ground or surface waters within influencing distance of the site.