

Manchester Airport Application Site Condition Report

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Manchester Airport Plc.

EPR/PP3023PR
Manchester Airport Combustion Permit Application
27 June 2025



Manchester Airport Application Site Condition Report

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1. Introduction

The purpose of this Site Condition Report (SCR) is to provide supplementary information to support the permit application for a new bespoke combustion installation permit at Manchester Airport under the Environmental Permitting (England and Wales) Regulations 2016 (EPR 2016). This SCR provides baseline information on the known environmental conditions of the site at the time of the permit application. Additional information referenced in the Manchester Airport Application Support Document (ASD) should be read in conjunction with this report.

The application covers 94 existing combustion units across the site, comprising:

- 34 boilers
- 34 fixed standby generators
- 15 mobile generators
- 11 fire systems (comprising standby generators and standby diesel pumps).

The boilers are fuelled by natural gas to provide heat, typically operating between October and April each year. The standby generators, mobile generators and fire systems operate intermittently (depending on energy demand or testing requirements). The generators are fuelled by gas oil (diesel).

1.1 Site Details

Manchester Airport is located approximately 14 km south-southwest from the centre of the city of Manchester in the metropolitan county of Greater Manchester. Table 1-1 below sets out the site details for Manchester Airport.

Table 1-1: Site Details

| | |
|-------------------------|---|
| Name of the Applicant | Manchester Airport Group Plc |
| Activity Address | Chicago Avenue, Manchester Airport, Manchester, Greater Manchester, M90 1QX |
| National Grid Reference | SJ 81812 85038 |
| Permit Number | Pre-application advice reference: EPR/PP3023PR |

1.2 Site Plans

The plan contained as Appendix A to this SCR shows the boundary of the Manchester Airport site and the location of the 94 combustion plant installations. Please also refer to the detailed site layout drawings provided in Appendix A of the Application Support Document.

A site setting plan is presented in Appendix B of this SCR. The plan shows Manchester Airport's environmental setting and proximity to sensitive receptors.

A plan showing the site surface water drainage catchments and the location of the combustion plant is provided in Appendix C of this SCR.

2. Condition of the Land at Permit Issue

2.1 Environmental Setting

Manchester Airport covers an area of approximately 5.6 km² and occupies land between the villages of Hale and the town of Wilmslow. The site is a commercial airport which currently has three terminals and two runways, with the northernmost runway referred to as Runway 1 and the southernmost runway referred to as Runway 2 for the purposes of this SCR.

The M56 motorway is adjacent to the northern, western boundary of the site with open grassland and woodland adjacent to the eastern, southwestern and southern boundary. Beyond the M56 are the residential developments of Warburton Green and Woodhouse Park. The National Trust's Quarry Bank and Styal Country Park is to the east. There are several waterbodies around Manchester Airport including the River Bollin, a tributary of the River Mersey, which runs under Runway 2 through a specially constructed tunnel.

Details of protected conservation areas were sourced from the government online mapping service MAGIC¹, which has information from Natural England and the Environment Agency (EA). Additionally, basic pre-application advice provided by the EA included a Nature and Heritage Conservation Screening Report² which also has been considered.

In line with the Environment Agency guidance³ it is necessary to identify protected conservation areas within the following distances from the site:

- European sites (i.e. Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites) within 15 km; and
- Site of Special Scientific Interest (SSSI) and local nature sites (i.e. ancient woodlands, local wildlife sites (LWS), national and local nature reserves (NNR and LNR) within 2 km.

Table 2-1 summarises protected conservation areas in the vicinity of the site. Distances were measured between the approximate site centre and the protected conservation area for consistency, except where the protected conservation area was identified adjacent to the site. **Error! Reference source not found.** and Figure 2-2 show the statutory Ramsar, SSSI and SAC designations relevant to the site. A plan showing the location of all protected conservation areas is included in the Air Quality Impact Assessment Report provided with the permit application (Appendix C of the Application Support Document).

Table 2-1: Protected conservation areas in the vicinity of the site

| Description | Distance from approximate site centre (km) | Direction from approximate site centre |
|--|--|--|
| Rixton Clay Pits SAC | 14.13 | West-northwest |
| Manchester Mosses SAC | 15.95 | West-northwest |
| Rostherne Mere Ramsar | 6.50 | West |
| Midland Mere & Mosses - Phase 1 Ramsar | 7.43 | Southwest |
| Cotteril Clough SSSI & AW & LWS | Adjacent to western site fenceline | |
| Cotteril Clough AW | 0.72 | West-southwest |
| Oversley Farm Wood (ID 1104307) AW & LWS | 1.22 | South |
| Ancient woodland (ID 1417980) | 2.00 | South |
| Ancient woodland (ID 1417975) | 2.56 | South |

¹ Defra (2025). MAGIC Map. Available at: <https://magic.defra.gov.uk/> [Accessed on 03/06/2025]

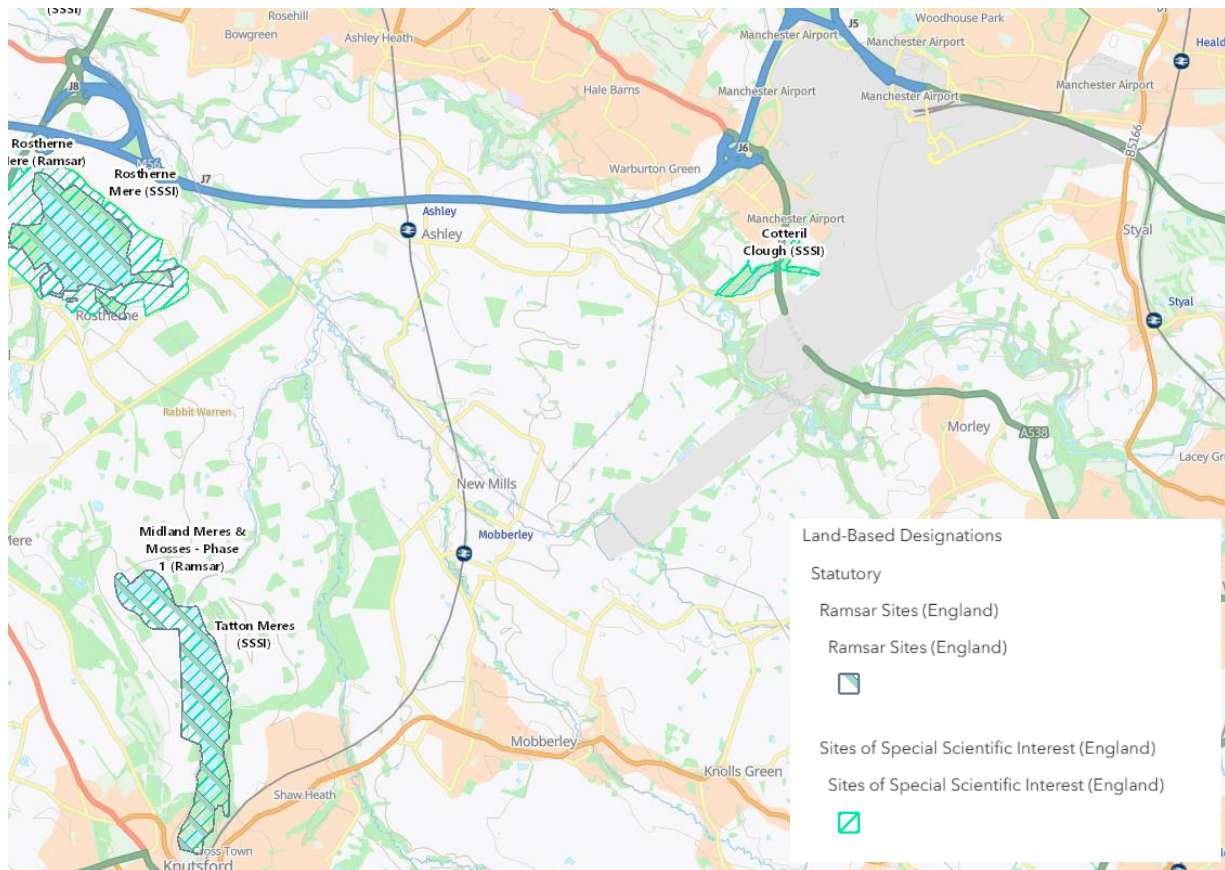
² Environment Agency (2024). Heritage Conservation Screening Report. Reference EPR/PP3023PR/P002.

³ Environment Agency & Defra (2025). Air emissions risk assessment for your environmental permit. Available at: <https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit> [Accessed on 13/06/2025]

| Description | Distance from approximate site centre (km) | Direction from approximate site centre |
|--|--|--|
| Sunbank Wood (ID 1105635) AW & LWS | 1.44 | West-southwest |
| Warburton Wood (ID 1105631) AW | 2.50 | West |
| Hennessy Bank (ID 1505490) AW | 2.22 | West |
| Bently/Tomfield Banks (ID 1105630) AW | 3.02 | West |
| Ancient woodland (ID 1417983) AW & LWS | 2.73 | West-southwest |
| Davenport Green Wood (ID 1505436) | 1.64 | Northwest |
| Bollin Bank (ID 1505489) AW & LWS | 2.01 | West-southwest |
| Well and Double Woods LWS | 1.74 | Southwest |
| Road Cutting at Castle Hill LWS | Adjacent to western site fenceline | |
| Ponds near Manchester Airport Runway LWS | Adjacent to western site fenceline | |
| Bentley & Tomfield Banks LWS | 2.81 | West-northwest |
| Ponds at Davenport Green LWS | 2.32 | Northwest |
| Big Wood LWS | 2.00 | Northeast |
| Park Wood LWS | 2.68 | North-northeast |
| Davenport Green Wood LWS | 1.62 | Northwest |
| Painswick Park Meadow LWS | 1.38 | North-northwest |
| Rossmill LWS | 2.43 | West |
| Heald Green Marsh LWS | 3.23 | Northeast |
| West Woodend Wood LWS | 2.28 | Southwest |
| Ecclesfield Wood LWS | 3.68 | West-southwest |
| Wood Near Valley House LWS | 1.98 | South |
| Styal Woods LWS | 1.44 | Southeast |
| East Woodend Wood LWS | 2.26 | South-southwest |
| Mobberley Brook Wood LWS | 5.97 | South-southwest |
| Round Covert LWS | 3.41 | West-southwest |
| Jackson's Bank East LWS | 3.15 | West |
| Wood End - Lady Lane LWS | Adjacent to western site fenceline | |
| Fields Near Mobberley Brook LWS | 5.36 | South-southwest |
| Town Lane Farm Sand Pit and Ponds LWS | 6.15 | South-southwest |
| Raleigh Wood LWS | 5.56 | Southwest |
| Square Wood LWS | 5.62 | Southwest |
| Saltersley Hall Farm LWS | 3.56 | South |
| Oversley Lodge LWS | 1.06 | Southeast |
| Burleyhurst Wood LWS | 2.38 | South |
| Hooksbank Wood And Bollin Oxbows LWS | 1.96 | South-southwest |
| Bollin Oxbow at Castle Hill LWS | 1.93 | Southwest |
| Lindow Moss & Newgate Nature Reserve LWS | 3.02 | South-southeast |
| Mill Wood; Castle Mill LWSs | 2.13 | West-southwest |
| Lindow Moss & Morley Green Heath LWS | 3.02 | South-southeast |
| Oversley Ford Brickworks and Road Embankment LWS | Adjacent to southern site fenceline | |

Manchester Airport Application Site Condition Report

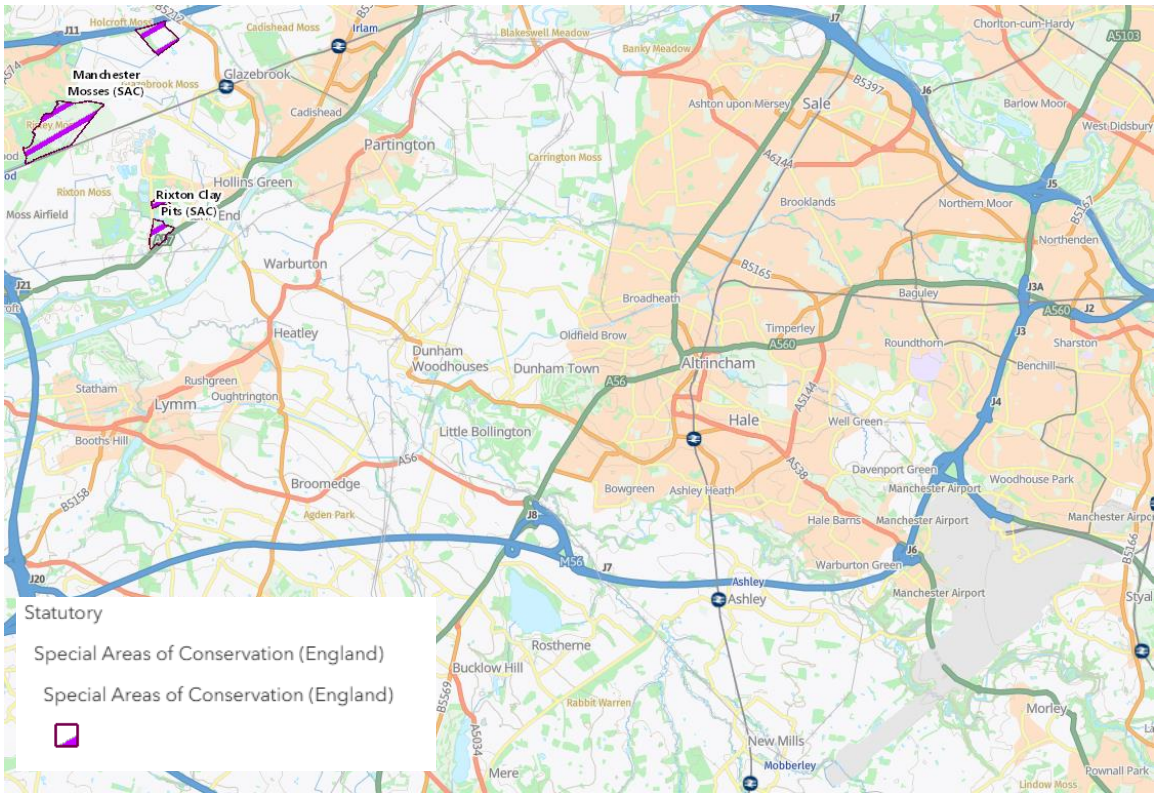
| Description | Distance from approximate site centre (km) | Direction from approximate site centre |
|---------------------------|--|--|
| Dobbin Brook Clough LWS | 3.52 | East-southeast |
| Norcliffe Farm, Styal LWS | 3.09 | Southeast |
| Holly Bank Wood LWS | 1.41 | South |
| Park Farm Grassland LWS | 4.42 | South-southwest |



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Figure 2-1: Map showing Ramsar (within 15km) and SSSI (within 2km) statutory designations around Manchester Airport

Please note the Tatton Meres SSSI has not been considered as the site is over 2km away.



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2.1.1 Topography

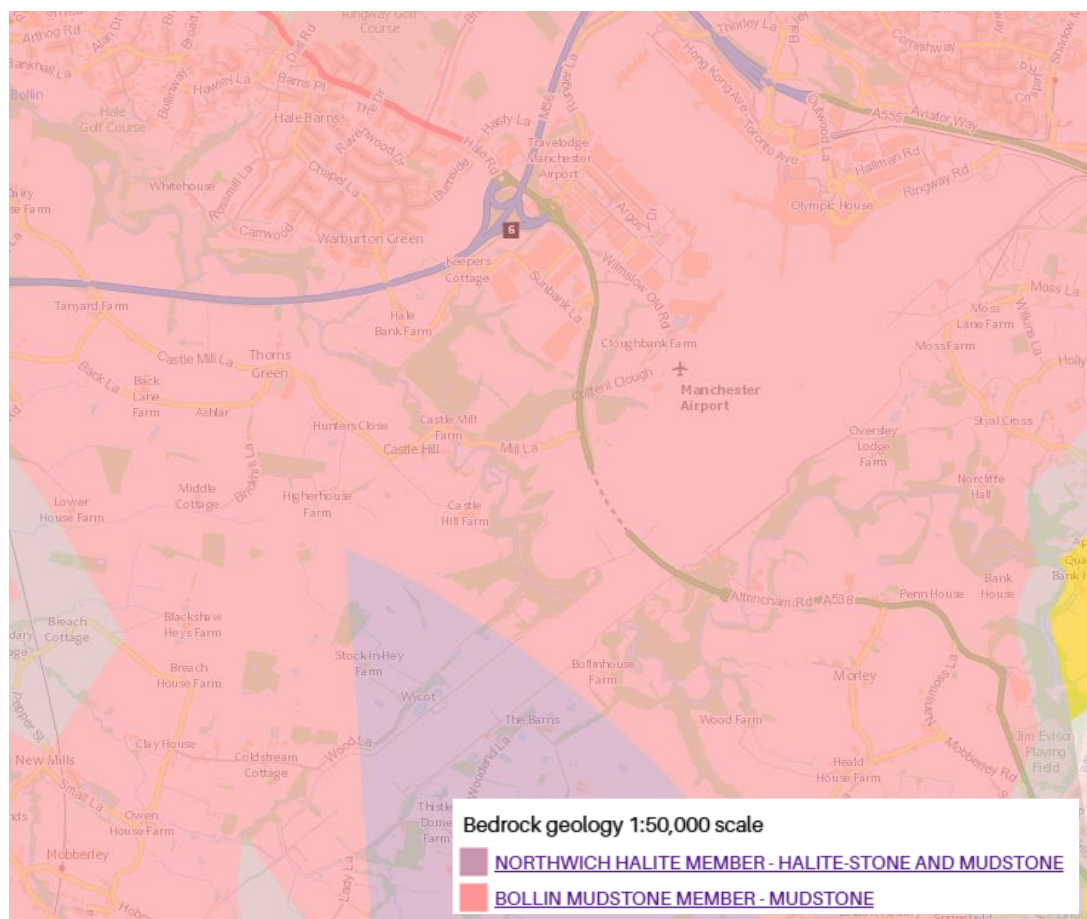
The site topography rises gradually from southwest to the northeast, with elevation increasing from approximately 50 mAOD (Metres Above Ordnance Datum) in the southwest to 80 mAOD in the northeast.

2.1.2 Air Quality

The site lies partially within an air quality management area (AQMA) (termed 'Greater Manchester Combined Authority AQMA'). This AQMA encompasses an area covering the 10 districts of Greater Manchester including arterial routes, district centres and parts of Manchester Airport⁴. The AQMA has been declared for elevated concentrations of annual mean nitrogen dioxide (NO₂) and 24-hour mean PM₁₀ (particles with an aerodynamic diameter of 10 microns or less) concentrations.

2.1.3 Solid Geology

Data from the British Geological Survey (BGS) GeoIndex⁵ records the majority of the site to be underlain by the Bollin Mudstone Member as shown in Figure 2-3. The Northwich Halite Member is present underlying Runway 2 toward the southeastern extent of the site and comprises halite with partings of mudstone.



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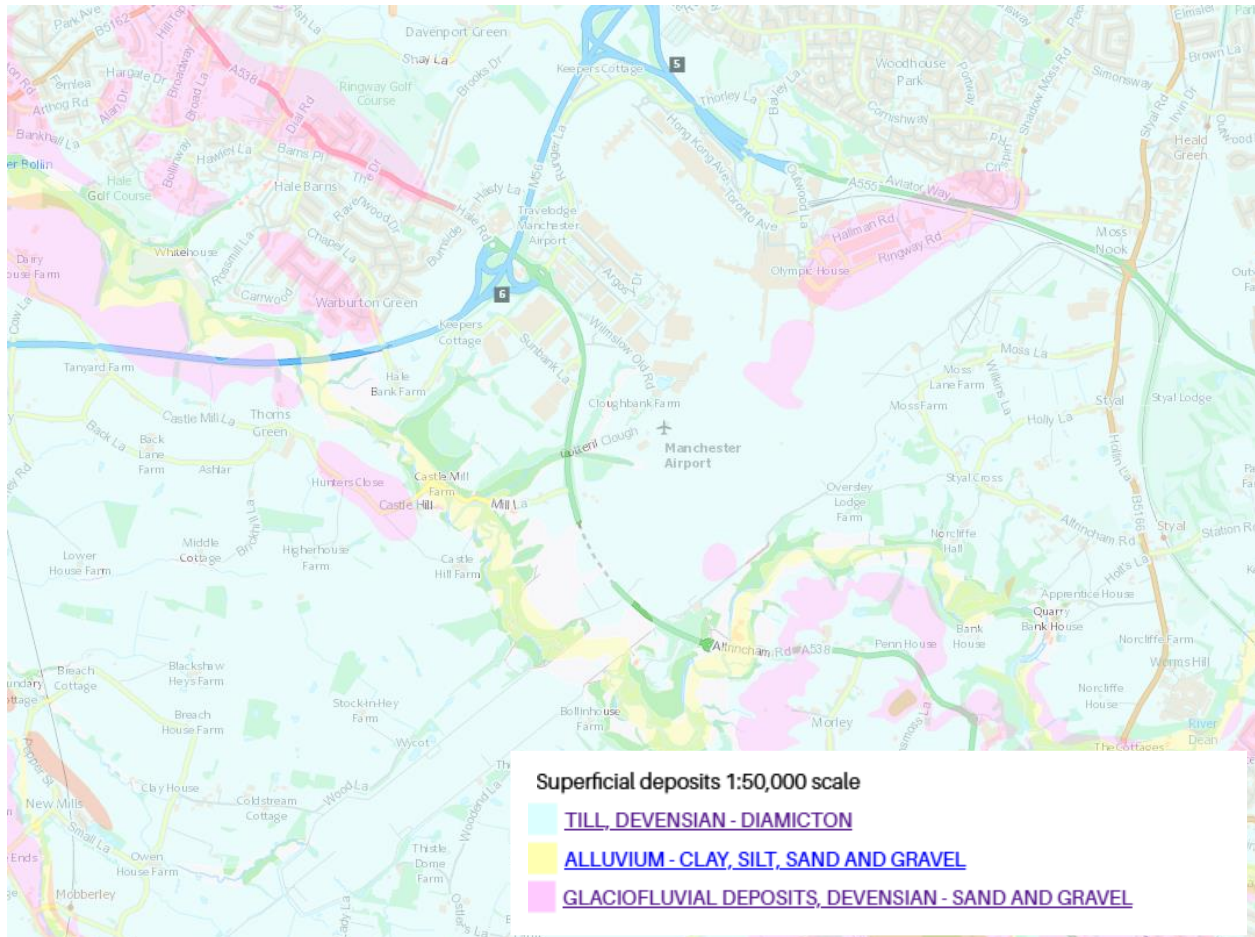
Figure 2-3: Map showing bedrock geology present at Manchester Airport

⁴ Defra (2025). AQMAs interactive map. Available at: <https://uk-air.defra.gov.uk/aqma/maps/> [Accessed on 03/06/2025]

⁵ BGS (2025). GeoIndex Onshore. Available at: <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/> [Accessed on 03/06/2025]

2.1.4 Superficial Geology

Data from the BGS GeoIndex shows the majority of the site to be underlain by Devensian till deposits described as sandy, gravelly, cobbly clay as shown in Figure 2-4. Localised areas of glaciofluvial deposits are recorded in the north of the site which comprise sands and gravels. Where the River Bollin crosses Runway 2, alluvium deposits described as clay, silt, sand and gravel underlie the watercourse. Superficial deposits are anticipated to be locally absent around the alluvium deposits.



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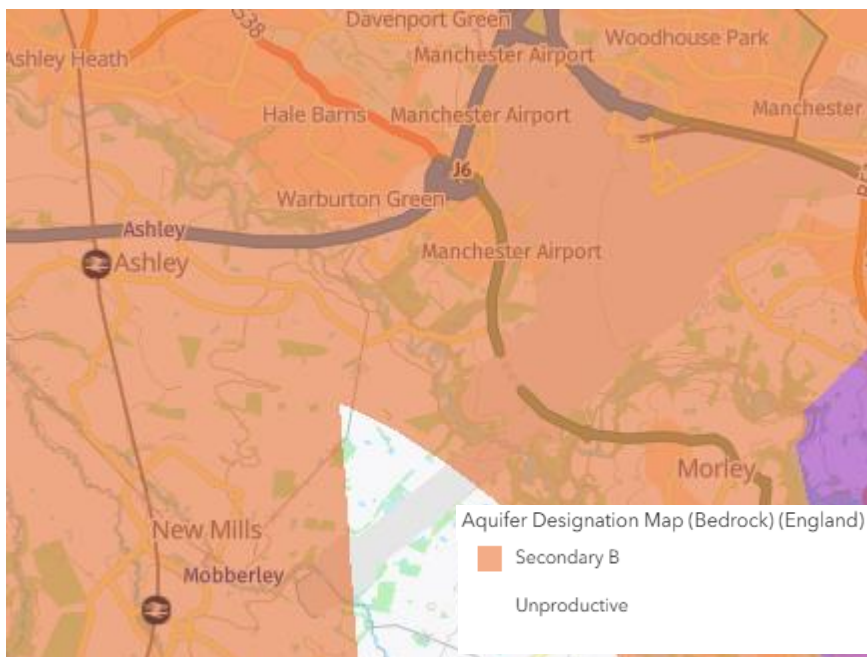
Figure 2-4: Map showing the superficial geology present at Manchester Airport

2.1.5 Soil Cover

The Soilscape map, available on the MAGIC mapping service, indicates that the soils underlying the site are slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils.

2.1.6 Hydrogeology

Details of the site hydrogeology were sourced from the MAGIC mapping service. The Aquifer Designation Maps show that the site overlies a Secondary B bedrock aquifer, which are described as low permeability units that store and yield limited amounts of groundwater through characteristics like fissures and openings or eroded layers. Figure 2-5 shows bedrock aquifer designations relevant to Manchester Airport. An area of bedrock underlying Runway 2 is classed as unproductive.

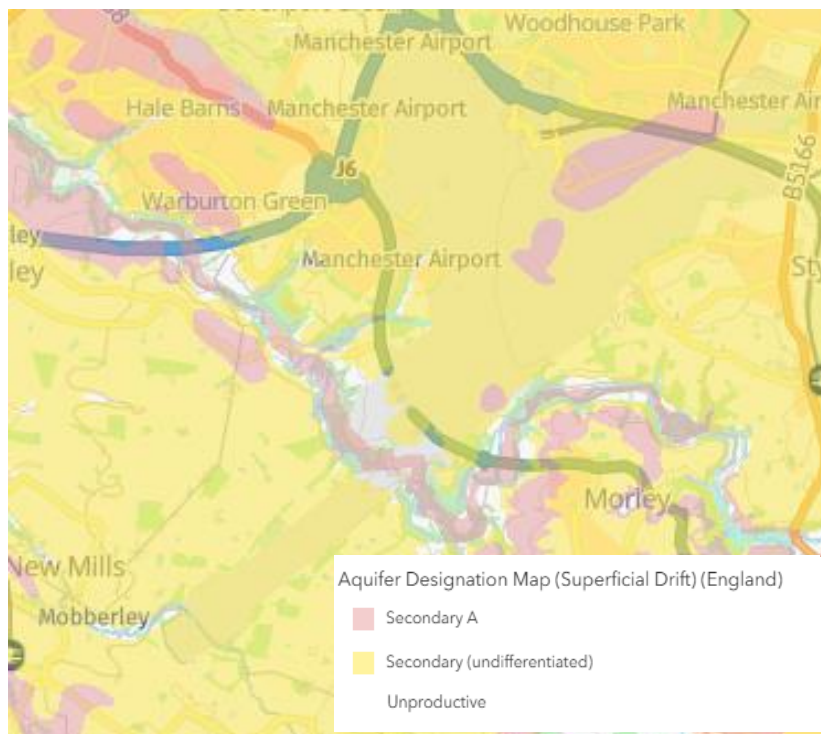


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Figure 2-5: Bedrock aquifer designations at Manchester Airport

Manchester Airport is located within the Weaver and Dane Quaternary Sand and Gravel Aquifers (Water body ID: GB41202G991700) groundwater body⁶ which was designated a poor overall status in 2019. Where glacial till is present underlying the site, the superficial aquifer is classed as a secondary undifferentiated aquifer which has a minor value and variable groundwater production characteristics. Where glaciofluvial and alluvial deposits are present, the superficial aquifer is described as a Secondary A aquifer, which comprise permeable layers that can support local water supplies and may form an important source of base flow to rivers. Figure 2-6 shows superficial aquifer designations relevant to Manchester Airport. Localised areas around the site are classed as unproductive.

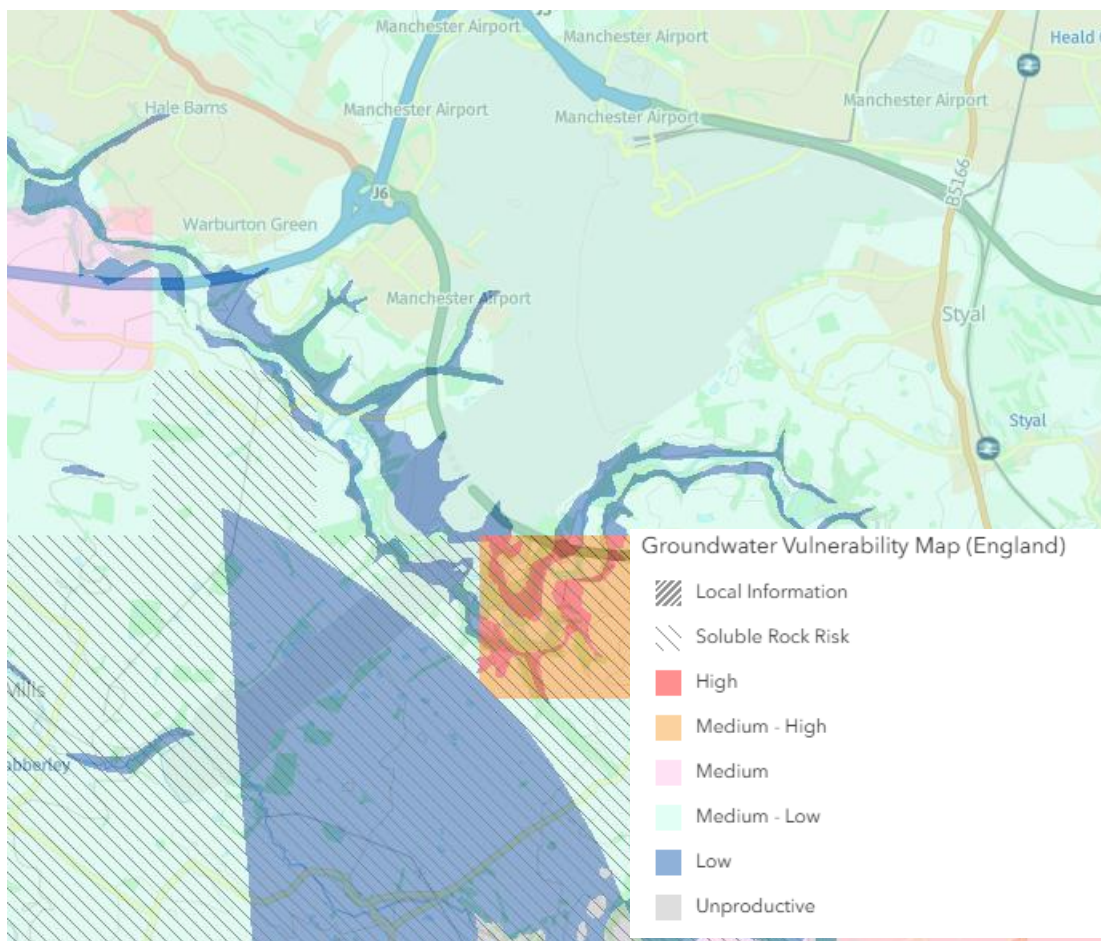
⁶ Environment Agency. 2025. Weaver and Dane Quaternary Sand and Gravel Aquifers Water Body. Available at: <https://environment.data.gov.uk/catchment-planning/WaterBody/GB41202G991700> [Accessed on: 03/06/2025]



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Figure 2-6: Superficial aquifer designations at Manchester Airport

As show in Figure 2-7, the majority of the site is underlain by areas ranging from medium to low groundwater vulnerability to a pollutant discharged at ground level, with a localised area of high groundwater vulnerability present in the southwest of the site. A soluble rock risk is indicated toward the southern extent of the site where halite comprises the bedrock.



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Figure 2-7: Map showing groundwater vulnerability present at Manchester Airport

There are no permitted (or known unpermitted) discharges to groundwater from the Manchester Airport⁷ site. It is anticipated that regional groundwater flows west and south west towards the River Bollin.

The site does not lie within a groundwater source protection zone and no licensed groundwater abstractions are registered to the site. Manchester Airport Group are not aware of any licensed groundwater abstractions in the vicinity of the site at the time of producing this report.

2.1.7 Hydrology

The site is located within the Bollin Dean Mersey Upper Operational Catchment⁸. There are several waterbodies located on or adjacent to the Manchester Airport site identified below.

- Bollin (River Dean to Ashley Mill) Water Body (Water Body ID: GB112069061381) (includes Cotterill Clough)
- Manchester Airport Timperley Brook Water Body (Water Body ID: GB112069061260)

⁷ AtkinsRéalis (2024). Manchester Airport - Site Survey Report.

⁸ Environment Agency. 2025. Catchment Data Explorer. Available at: <https://environment.data.gov.uk/catchment-planning> [Accessed on: 04/06/2025]

- Birkin Brook - Mobberley Brook to River Bollin (including Rostherne Brook) Water Body (Water Body ID: GB112069061370)
- Sinderland Brook (Fairwell Brook and Baguley Brook) Water Body (Water Body ID: GB112069061270)
- Sugar Brook Water Body (Water Body ID: GB112069061350)

Though the Sinderland Brook and Sugar Brook water bodies are also in the vicinity of the airport, these do not receive any surface water discharges from Manchester Airport.

Timperley Brook is located to the northwest of the site and eventually meets the River Mersey. Development of Runway 2 involved culverting a section of the River Bollin under the structure. The River Bollin flows to the west, eventually joining the River Mersey. Cotterill Clough drains into the River Bollin to the west of Runway 1. The Birkin Brook - Mobberley Brook also flows to the River Bollin. A small unnamed watercourse is located to the east of Runway 2 and is identified as a tributary to the Birkin Brook.

Surface water discharges to the River Bollin and Cotterill Clough as well as smaller brooks (Timperley Brook, Sugar Brook, Bager Brook, Double Wood Brook) identified in drainage plans as surface water receptors around the site.

The following information has been summarised from the Environment Agency Catchment Data Explorer and describes the most recent waterbody classifications from 2022 unless stated otherwise. It should be noted that since 2019, all water bodies in England 'fail' chemical status.

Table 2-2: Waterbody classifications (2022)

| Category | Bollin (River Dean to Ashley Mill) | Timperley Brook | Birkin Brook - Mobberley Brook to River Bollin |
|--|--|--|--|
| Overall ecological status | Moderate | Moderate | Bad |
| Biological quality elements | Moderate | Moderate | Bad |
| physico-chemical quality elements | Moderate | Moderate | Moderate |
| Hydromorphological Supporting Elements | Not High | Not High | Not High |
| 2019, chemical status classification | Fail - mercury and its compounds, as well as polybrominated diphenyl ethers (PBDE) | Fail - mercury and its compounds, as well as polybrominated diphenyl ethers (PBDE) | Fail - mercury and its compounds, as well as polybrominated diphenyl ethers (PBDE) |
| Specific pollutants | - | High for copper, iron, triclosan and zinc | High for chlorothalonil, chromium (VI), copper, iron, manganese, pendimethalin and zinc. |

According to available mapping⁹, areas of the site primarily near the southern boundary (denoted by the site fence line), sit within Flood Zone 2 (i.e. annual probability of between 1:1,000 and 1:100 of river flooding) and Flood Zone 3 (i.e. annual probability of 1:100 or greater of river flooding). Flood Zone 2 and 3 areas are located in parts of the southern western sections of the site, largely surrounding the River Bollin. Some localised Flood Zone 2 areas are also present north-west of the site, with Flood Zone 3 areas to the north.

⁹ Environment Agency (2025). Get flood risk information for planning in England. Available at: <https://flood-map-for-planning.service.gov.uk/> [Accessed on: 04/06/2025]

2.2 Site Surface Water Drainage

There are eight surface water drainage catchments at Manchester Airport, which discharge via nine separate outfalls to watercourses around the site. The surface water catchment areas are shown in Figure 1 below. The plan in Appendix C shows the location of the combustion installation units in relation to these catchment areas.

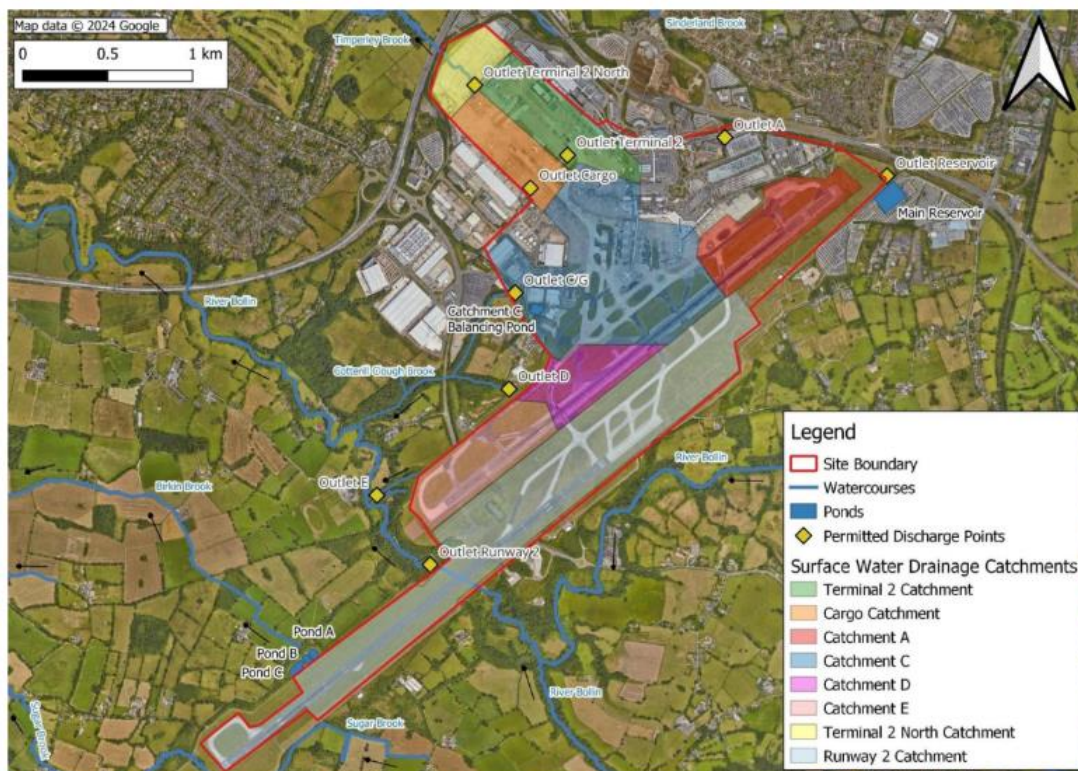


Figure 1: surface water drainage catchment overview. Unshaded areas are not positively drained into the drainage catchments

Manchester Airport operates a Surface Water Drainage Management Plan (SWDMP)¹⁰. A drainage containment system is in place at the airport to capture runoff from runways, taxiways and aircraft parking areas when it contains de-icing products and divert this water to the public sewer for treatment. Runoff from individual catchments can be diverted independently of each other. Runoff from these areas either outfalls into the River Bollin or, when dirty, is diverted to sewer. A copy of the SWDMP is provided in Appendix B of the Application Support Document.

The area captured by the containment system is shown in Figure 2. The majority, but not all, of the combustion plant is located in areas discharging to the catchment system. There are 33 units that are located outside of the catchment system.

The Manchester Airport Engineering Shift Team Manager (ESTM) has responsibility for managing the drainage containment system to prevent pollution of watercourses. Individual catchments are put into 'containment mode' (i.e. diversion to public sewer) in the event of:

- receipt of notification of aircraft or airfield pavement de-icing activity within that catchment;
- on-line Total Organic Carbon (TOC) monitoring equipment indicates that runoff exceeds the relevant trigger level¹¹;

¹⁰ Manchester Airports Group (2020). Manchester Airport Surface Water Drainage Management Plan. January 2020.

¹¹ As the de-icing products all contain organic carbon, TOC is a suitable indicator for their presence. As the monitoring for TOC is continuous, the surface water management system can be responsive to sudden changes in the weather.

- TOC monitor or comms failure;
- risk that a spillage has entered the drainage system; and,
- maintenance of the drainage system.

The drainage system is returned back to 'watercourse mode' (i.e. diversion to local watercourses) in the event of measured TOC readings falling below the relevant trigger level. On catchments without water quality monitoring equipment this is done manually based on water quality data available at other areas of the site, knowledge of de-icing activity and rainfall.

In the event of a chemical or fuel spillage, measures are taken to contain the spillage or contamination as locally as possible, prevent too much dilution and/or direct it to a location where it can be captured and recovered.

If there is a risk that the spillage could enter the drainage system, then the drainage system would be put into Emergency Mode by the ESTM. This diverts any flow into containment and disables all pumps so that contaminated flows are retained within local storage where it can be accessed for recovery. A clean up would then be initiated, which can involve specialist third party contractors.

All areas that are not drained to the containment system discharge to surface water outfalls via oil interceptors, with the exception of the B7 pumping station.

The exact drainage layout of each surface water catchment at Manchester Airport varies. A schematic of the overall system in 'watercourse mode' and 'containment mode' is shown in Figure 3 and Figure 4, respectively.

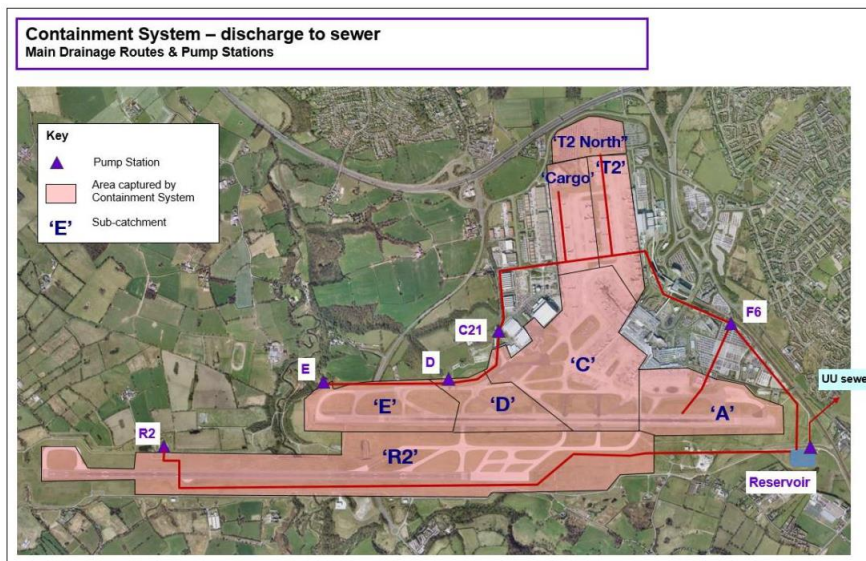


Figure 2-8: Overview of containment system (Source: Manchester Airport Surface Water Drainage Management Plan)

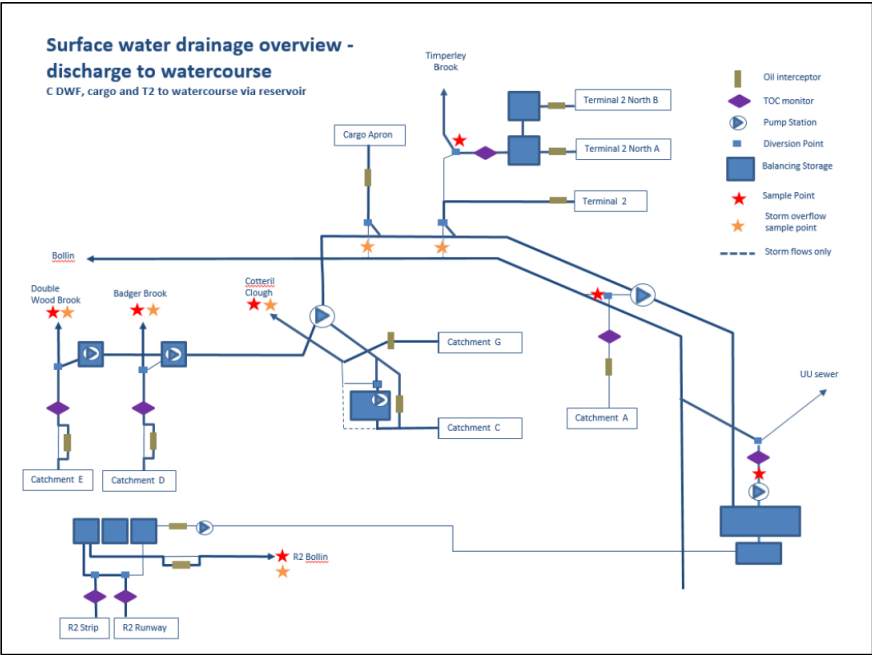


Figure 2-9: Schematic of the overall surface water drainage system in 'discharge to watercourse' mode (Source: Manchester Airport Surface Water Drainage Management Plan)

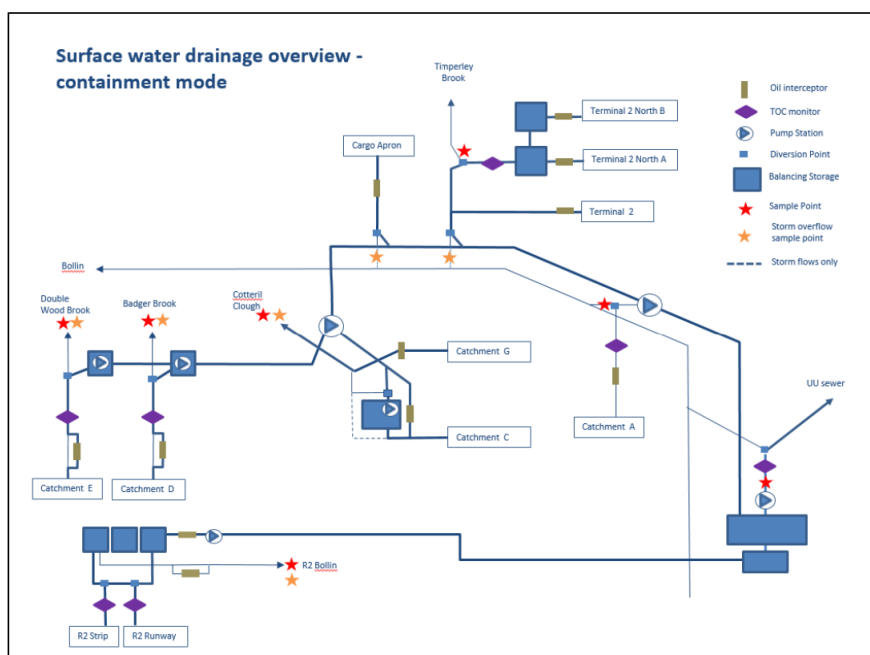


Figure 2-10: Schematic of the overall surface water drainage system in containment mode (discharge to public sewer) (Source: Manchester Airport Surface Water Drainage Management Plan)

2.3 Site History

The following site history has been summarised from information contained on the MAG website¹² and a Site Survey Report¹³ authored by AtkinsRéalis.

Early maps show the location of the site to be farmland, roads and some settlements such as a Vicarage in 1923.

Officially opened in 1938, Manchester Airport (then termed Ringway Airport) was Manchester's municipal airport. In 1939 the site became an aircraft manufacturing centre for Fairey Aviation and Avro during the Second World War. An early plan of the site in 1939 shows the Ringway Airport as a major centre of aircraft production and modification. The existing runway and airport facilities were enhanced during wartime with three new runways and ten new hangars built.

From 1946 onwards, commercial airport operations resumed and continued to expand, a modern new terminal building (now Terminal One) was opened in 1962. In 1989 the new domestic terminal (now known as Terminal 3) was opened. Subsequently much modified, Terminal 1 currently adjoins Terminal 3.

In 1993 Terminal 2 was opened, which doubled terminal capacity at the airport (to around 20 million passengers a year). A new railway station was also opened; providing direct links to towns and cities in the North of England.

In the 1990s, the Fire Training Ground (FTG) was moved from its original location (beneath what is now Terminal 2) to where it currently resides, in the south-east corner of the Manchester Airport site.

A second runway (Runway 2) was opened at Manchester Airport in 2001. This included construction of a new fire station and substantial re-profiling of land to the south of the runway that adjoins a country park. In 2004 an Integrated Public Transport Interchange was completed which includes a bus, coach and train station. Major re-engineering to increase capacity and improve train handling at the railway station led to a third railway platform being opened in 2009.

¹² Manchester Airport Group (2025). Our History. Available at: <https://www.manchesterairport.co.uk/about-us/manchester-airport-and-mag/history/> [Accessed on: 03/06/2025]

¹³ AtkinsRéalis (2024). Manchester Airport - Site Survey Report.

Manchester Airport was certified as 'Airbus A380 ready' in 2010. To support A380 and Code F aircraft, a new bespoke aircraft stand was built and taxiways were also widened. In 2014 the Manchester Airport Metrolink tram line route was launched.

In 2017, work on the Manchester Airport Transformation Programme began and in 2021 the west side of the brand-new Terminal 2 opened. In January 2023, work commenced on the second phase of the programme which will see the completion of a second pier at Terminal 2 amongst other developments.

To date, significant work has been carried out on the airfield including the installation of a sub-terranean aviation fuel pipe and the commencement of work to create a new dual taxiway which will make the airfield more efficient.

2.4 Pollution History

Unless otherwise explicitly referenced, this section summarises relevant information from the AtkinsRéalis Site Survey Report¹⁴.

2.4.1 Overview of Site Activities

The generators which form part of the combustion plant installation plant are run on gas oil (diesel). Leaks and spillages of fuel from the generators or associated tanks and pipework has the potential to pollute soils, groundwater and surface waters with diesel range hydrocarbons. Thus, it is important that adequate containment measures, operating techniques and spill response measures are in place. Control measures are discussed in Section 3. It should be noted that the generators and associated fuel storage tanks and pipework are existing site assets.

Hydrocarbon contamination also has the potential to arise from other activities across the Manchester Airport site. Potential sources include the following:

- At airports aviation fuels are generally stored and supplied from on-site depots and operated by major oil companies. At Manchester Airport, storage tanks are filled via a pipeline directly from MASHCo. Fuel for aircraft is dispensed to the apron either by tankers, or via an underground network of pipes.
- Liquid de-icing agents are applied to ground and aircraft. It is normally the responsibility of the airport company to ensure that all runways are free of ice, whilst individual airlines tend to de-ice their own aircraft either themselves or by using ground handling agents. There may be some granular de-icers used airside and landside, such as salts.
- Hangar facilities at airports are used for a range of servicing and maintenance activities. Some of these activities can also be carried out on the apron at the airport; aircraft fuselages are cleaned and levels of hydraulic fluid in the aircraft 'topped up'.
- Manchester Airport does not have any current petrol stations within the site boundary, but there are historic sites.
- Landfill sites, both current or historic, may be sources of hydrocarbons. There are several historic landfills within or close to Manchester Airport's site boundary.
- Historic areas of ground contamination arising from Ministry of Defence (MOD) activities and / or locations where sizable hydrocarbon spills happened historically.

2.4.2 Landfill Sites

There are no landfill sites that are currently live / authorised by the Environment Agency under Environmental Permitting Regulations in the immediate area surrounding MAN. Historic landfill sites were however located within, and in the area surrounding the footprint of the airport.

¹⁴ AtkinsRéalis (2024). Manchester Airport - Site Survey Report.

2.4.2.1 Borrow Pit Landfill

The site of the former Borrow Pit landfill was located adjacent to Runway 2. Opus International Consultants (Opus) produced a report in 2015 to support the surrender of the waste management licence held by MAN. The following potential on-site and off-site sources of ground contamination were identified:

- On-Site
Potentially contaminated pockets of Made Ground within the inert landfill material. Pockets of discrete contamination from ash/ asphalt and concrete gravel. Noting metals and polycyclic aromatic hydrocarbons (PAHs) as potential contaminants of concern.
- Off-Site
Potential for migration of mobile contaminants from the surrounding land-uses including the old clay pit of Overlyford Brick works and the deposition of material to construct Runway 2. The footprint of the former clay pit now lies underneath Manchester Airport and its runways.

Nevertheless, based on the inert nature of the fill material, the low permeability cohesive deposits, the Secondary B aquifer and that the site does not seem to be in hydraulic continuity with the adjacent River Bollin, Opus concluded that there was no unacceptable level of risk from leachate to controlled waters.

A sizable portion of the former Borrow Pit landfill site was more recently used by Manchester Airport as the Southside Compound and is now covered by hardstanding; the following potential sources of contamination in this area were identified as part of a desk study completed by Jacobs in 2024¹⁵:

- Potential contamination from fuels, oils, and chemicals from contractor vehicle operations and activities.
- Potential contamination from general contractor activities and storage onsite.
- Potential groundwater contamination associated with the backfilling of the former clay pit.

The GEN20 - R2/2 SUB (South Fire Station) combustion unit is located within the Borrow Pit Landfill footprint in Runway 2 Catchment.

2.4.2.2 Other historic landfill sites

Three additional historic landfill sites (to the Borrow Pit landfill) were located within the footprint of MAN, whilst the former Bollin House Farm landfill site was located nearby (South of Runway 2). No details on the licences were found.

One of the historic landfills which is located to the north of Altrincham Road is adjacent to combustion units RT10 GEN23 - R2/2A SUB, GEN24 - R2/3 SUB ENG 1 and GEN25 - R2/3 SUB ENG 2 in the Runway 2 Catchment.

2.4.3 Areas of Potential Historic Contamination

2.4.3.1 Arcadis Site Investigation (1999)

A site investigation was undertaken by Arcadis in 1999 to determine the quality of soil and groundwater underlying the airport site, and to assess the potential risks to the surrounding environment which may have arisen from historical and current airport operations¹⁶.

Potential hotspots of contamination investigated were identified from a desk-based study and through discussions with MAN. Hotspots identified as contaminated by hydrocarbons are summarised below.

¹⁵ Jacobs (2024a). MAG Southside Compound. Geoenvironmental Desk Study.

¹⁶ Arcadis (1999). Environmental Site Investigation – Manchester Airport.

Terminal 1 BP Garage (existing and historic underground petrol/diesel fuel tanks) located in Catchment C

- Made ground and underlying Boulder Clay and glacial deposits are contaminated by hydrocarbon compounds, with concentrations of substances including naphthalene, anthracene, phenanthrene and fluoranthene suggesting recent spillage or on-going leakage problem from underground storage tanks.
- No combustion units are located within the vicinity of this area of potential historic contamination. The nearest combustion unit is A17 - T1 OBC to the south over 100m away.

West Side (existing fuel farm, sweeper tip, old fuel points) located in Catchment C

- Significant contamination problem was observed in the vicinity of the aviation fuel storage tanks with measured concentrations of organic compounds suggesting spillage or on-going leakage problem from storage tanks or associated pipelines. No exact location is provided for aviation fuel storage tanks but combustion units GEN09 - D SUB, A09 - West Side Fire Station, GEN10 - Fire Station, GEN02 - ATC, GEN30 - T3 H1 SUB tower, FIR08 - T1 & T3 Sprinklers and the mobile generators are located within Catchment C.
- Ground immediately around what was the Hangar 3 refuelling point was observed to be impacted by hydrocarbons. Low levels of PAHs detected were deemed to be indicative of a fuel source (most likely diesel) and it was suspected that underground storage tanks had been leaking over a prolonged period of time. The nearest combustion unit is GEN09 - D SUB located over 100 m to the east.
- The made ground (consisting of sandy gravel fill) present around the former sweeper tip, immediately north of what is now Manchester Airport Motor Transport and Stores was observed to be contaminated by organic compounds, mainly PAHs which may indicate diesel fuel oil or aviation fuel source. Note that, in a later investigation, elevated concentrations of substances, including metals, ammoniacal nitrogen and PAHs, were found within the groundwater sampled from the Glacial Till at the former Hangar 5 site, which was located immediately north of the former sweeper tip. No combustion units are located within the vicinity of this area of potential historic contamination. The nearest combustion unit is GEN09 - D SUB to the east over 100m away.

2.4.3.2 Tetra Tech Geo-Environmental Desk Study Assessment

A Geo-Environmental Desk Study Assessment was carried out by Tetra Tech ¹⁷ to support the potential development of Hangar 4 located between Wilmslow Old Road, Avro Way and Pinfold Lane (Grid reference: 381121E, 384640N) within Catchment C. No intrusive ground investigation (GI) was carried out.

The desk study reported the following information relevant to this SCR in the preliminary ground contamination assessment:

On-site Sources

- Made Ground has potential for contaminants associated with historic and current land (including sewage works and airport activities), use as well as potential infilled land, associated with an unknown bund located at Hangar 4.
- Potential contaminants associated with previous and current industrial use of the site.
- Fuel stores associated with aviation fuel, regular vehicle fuel (HGVs) and former tanks on the western boundary as well to the centre north of Hangar 4.

Off-site Sources

- Contaminants associated with transfer and storage of fuels to tanks in the north of Hangar 4.
- Potential contaminated land associated with aircraft hangars, services, engineering and other airport activities.

¹⁷ Tetra Tech (2023). Hangar 4, Manchester Airport, Geo-Environmental Desk Study Assessment. B041631.DS.1.

- Made Ground has potential for contaminants associated with historic and current land use (including unspecified works and further airport activities) as well as infilled land, with on/off site ponds and similar features.

The nearest combustion unit to Hangar 4 is A09 - West Side Fire Station located over 100 m to the east.

2.4.3.3 Previous Localised Ground Investigation Results and Potential Contamination Encountered

Four localised GIs and geo-environmental assessments have been undertaken at the airport in recent years in relation to construction projects. A brief summary of the ground conditions encountered and available land contamination data is presented in Table 2-3 below.

Table 2-3: Summary of ground conditions encountered and available contamination data

| Relevant Site Area | National Grid Reference | Nearest Combustion Units (Distance and location) | Information Available | Document, Author and Date | Number of GI Positions | Summary of Ground Conditions Encountered | Evidence of Potential Hydrocarbon Contamination |
|---|-------------------------|--|---|--|--|---|---|
| Proposed Service Chamber, Pier 2, Terminal 2 (Terminal 2 Catchment) | 381210E 385524N | GEN33 (within 100 m west) | Factual Report with geochemical soils and groundwater results available | Factual Ground Investigation Report, Proposed Service Chamber, Manchester Airport, Terminal 2, Soiltechnics Ltd, May 2025 ¹⁸ | 1no. rotary borehole | Made ground was encountered to 2.7 m bgl overlying deposits comprised slightly gravelly, slightly sandy clay to a depth of 9 m bgl. Bollin Mudstone bedrock encountered underlying the clay deposits, from a depth range between 9 m bgl to 17.5 m bgl. | Made ground comprised concrete hardstanding over gravelly coarse sand and firm to soft sandy clay with anthropogenic material including clinker, brick, coal and concrete. Strong hydrocarbon odour recorded at 2.0-2.3 m bgl and a strong organic odour recorded at 2.3-2.7 m bgl within made ground at the sole GI position. No screening of geochemical results against human health or Generic Assessment Criteria (GAC) water environmental quality standards (EQS) was available. |
| Sydney Avenue (Not within a Catchment) | 381083E 386076N | GEN15 - Pump station B7 (within 100 m east) | Desk study and a Factual Report with geochemical soils results available | Sydney Avenue, Manchester Airport, Phase 2 Factual Geo-Environmental Investigation Report, LK Consult Ltd (LKC), March 2024 ¹⁹ Desk Study Sydney Avenue, Jacobs, February 2024 ²⁰ | 2no. sonic rotary boreholes, 7no. window sample boreholes, 5no. machine excavated trial pits, 9no. hand dug pits and 8no. Dynamic cone penetration tests | Varying thicknesses of Made ground (up to 2.5 m thick) encountered overlying superficial deposits comprised of predominantly clay, with horizons of gravel, sand and silt to a maximum depth of 2.5 m bgl. Mudstone bedrock encountered underlying superficial deposits, from a depth range between 2.1 m bgl and 4.34 m bgl. | The desk study identified potential on site sources of contamination associated with made ground / fill from the highway, car park and infilled ponds Made ground comprised horizons of tarmacadam, concrete, both cohesive and granular strata with anthropogenic material including clinker, ash, brick, plastic, concrete and metal. No other visual or olfactory evidence of contamination was observed. No screening of soil geochemical results against GAC were available. |
| T3 Security Search area re-provision at Stand 18 (Adjacent to Catchment C) | 382036E 384932N | FIR08 - T1 & T3 Sprinklers (within 100 m west) | Desk study, Interpretative report and a Factual Report with geochemical soils and groundwater results available | MAG T3 Security Search Area Re-Provision, Geoenvironmental Assessment Report, Jacobs, December 2023 ²¹ Ground Investigation at Manchester Airport, Terminal 3 Security Extension, CC Geotechnical Ltd, August 2023 ²² MAG T3 Security Search Area Re-Provision, Geoenvironmental Desk Study, June 2023 ²³ | 3no. window sample boreholes and 6no. cable percussive boreholes with rotary coring follow-on | Varying thicknesses of Made ground (up to 2.5 m thick) encountered overlying Glacial Till and Glacial Sands and Gravels to a maximum depth of 5.5 m bgl. Bollin Mudstone bedrock encountered underlying superficial deposits, from a depth range between 1.8 m bgl and 30.3 m bgl. Gypsum was encountered within bedrock at five GI locations. | The desk study identified potential on site sources of contamination primarily associated with the use of the site as an airport and associated activities including aircraft re-fuelling operations, servicing and maintenance, de-icing and fire control operations. Made ground generally comprised of hardstanding concrete, over granular material of sandy gravel or a slightly silty sand, sometimes with medium cobble content. The gravel composition was variable, and included limestone, brick, cinders, and sandstone. Visual and olfactory evidence of contamination was limited to possible hydrocarbon staining to concrete at four GI locations. A comparison of the available soil analytical testing data against the human health GAC did not identify any exceedances assuming a commercial/industrial end use. A limited number of hydrocarbon determinands exceeded the relevant EQS for leachable soil analysis and groundwater from Made Ground and superficial deposits. |

¹⁸ Soiltechnics Ltd (2025). Factual Ground Investigation Report, Proposed Service Chamber, Manchester Airport, Terminal 2. STW6769-R01-Rev_C.

¹⁹ LKC Ltd (2024). Sydney Avenue, Manchester Airport, Phase 2 Factual Geo-Environmental Investigation Report. LKC 23 1772.

²⁰ Jacobs (2024b). Desk Study Sydney Avenue.

²¹ Jacobs (2023a). MAG T3 Security Search Area Re-Provision Geoenvironmental Assessment Report.

²² CC Geotechnical Ltd (2023). Ground Investigation at Manchester Airport, Terminal 3 Security Extension. CCG-C-23-13759.

²³ Jacobs (2023b). MAG T3 Security Search Area Re Provision Geoenvironmental Desk Study.

| Relevant Site Area | National Grid Reference | Nearest Combustion Units (Distance and location) | Information Available | Document, Author and Date | Number of GI Positions | Summary of Ground Conditions Encountered | Evidence of Potential Hydrocarbon Contamination |
|---------------------------|-------------------------|--|---|---|--|--|--|
| Hangar 3 (Catchment C) | 380995E 384730N | GEN09 - D SUB (over 100 m east) | Technical Note with geochemical soils and groundwater results available | Manchester Airport, Proposed DNATA Site: Geotechnical & Geo-environmental Technical Note on Ground Investigation, AECOM, 2019 ²⁴ | 1no. trial trench, 4no. cable percussive boreholes, 8no. window sample boreholes and 10no.concrete cores | <p>Varying thicknesses of Made ground (up to 0.7 m thick) encountered overlying Glacial Clay and Glacial Sand to a maximum depth of 7.0 m bgl.</p> <p>Bollin Mudstone bedrock encountered underlying superficial deposits from a depth range between 3.2 m bgl and 11.5 m bgl.</p> | <p>Made ground comprised horizons of clay and sand with anthropogenic material including ash, brick, tarmacadam and concrete.</p> <p>Black stained sand was visible and hydrocarbon odours were identified at one GI location within a deposit of coarse sand between 1.4m and 1.7m bgl.</p> <p>A comparison of the available soil analytical testing data against the human health GAC did not identify any exceedances assuming a commercial/industrial land use. No hydrocarbon EQS exceedances for soil leachate or groundwater were identified.</p> |

²⁴ AECOM (2019). Manchester Airport, Proposed DNATA Site: Geotechnical & Geo-environmental Technical Note on Ground Investigation. 60585257/TN/16012019.

2.4.4 Pollution Spills / Incidents

An overview of the known fuel 'significant' spills/ incidents at Manchester Airport are included in Table 2-43. These all involve aviation fuel breakdown products. There are no records of significant spills or incidents involving gas oil (diesel) associated with combustion plant at the site.

Table 2-4: Known 'significant' fuel spills

| Location | Airport catchment | Date | Incident | Location of closest combustion fuel unit |
|---|-------------------|----------|--|---|
| Runway 1 & current Taxiway Bravo Area | Catchment D | Pre-2010 | British Airtours disaster | GEN03 - AVP and A14 - Aviation Viewing Park located over 100m northwest |
| Runway 1 | Unknown | Pre-2010 | Airtours MD83 incident | Unknown |
| At the location of what is now Jet 2-line maintenance | Catchment C | Pre-2010 | Monarch hangar fuel spill | A09 - West Side Fire Station and GEN10 - Fire Station located over 100m east |
| Terminal 1 Gate 3 (Southern Front) | Catchment C | Pre-2010 | Aircraft Fuel Spillage- Black Watch Incident | A02 - T1 Arrivals located within 100m west |
| Terminal 1 (Pier C) | Catchment C | Pre-2010 | Aircraft fuel (Jet A1) spillage | A02 - T1 Arrivals located adjacent north |

2.5 Baseline Soil and Groundwater Reference Data

No baseline soil and groundwater reference data has been collected to support this Application Site Condition Report.

Manchester Airport Plc. recognises that the operator of a permit maintains a legal responsibility to address contamination arising from the permitted activities upon permit surrender, unless the level of pre-existing contamination has been quantified and the operator can demonstrate that it has not added to it. Manchester Airport Plc. acknowledge that where there is no baseline data available, the local baseline level of contamination will be assumed to be zero.

3. Permitted Activities

3.1 Existing Permitted Activities

Permits current held by MAG for the site, comprise a Greenhouse gas emissions permit (UK-E-IN-11829), and discharges to watercourses, relating to site drainage and containment system (NW/EPRCB3299EN/002).

Details of the current discharge permits are presented in Appendix D.

3.2 Application Activities

This Application Site Condition Report is to support a new bespoke environmental permit application for the combustion of fuel in appliances at Manchester Airport. The total rated thermal input of the combustion plant at the site is more than 50MWth and therefore requires an Installation permit under Section 1.1 Part A(1) (a) 'Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts' activity, as defined in the EPR regulations.

This section provides an environmental risk assessment for the substances used and produced by the application activities that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail. This include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

Raw material utilised for the Installation activities are detailed in Table 3.2.1.

Table 3.2.1: Types and amounts of raw materials

| Description of raw material and composition | Maximum amount stored (tonnes) | Annual throughput (tonnes each year) | Description of the use of the raw material including any main hazards (include safety data sheets) |
|---|--------------------------------|--------------------------------------|---|
| Natural Gas | N/A | Approx. 25,430 | Boiler fuel |
| Fuel Oil | Approx. 280 | 16.3 | Standby generator gas oil |
| Water | N/A | Not known | The gas fired boilers provide heating and hot water |
| Sentinel X100 | 0.01 | Not known | Corrosion and Scale Inhibitor for Heating and Cooling Systems Soluble in water. Does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| HB160 (blend including sodium hydroxide) | 0.01 | Not known | Boiler treatment chemical - corrosion inhibitor Soluble in water. Not bio accumulative. Marine pollutant H400: Very toxic to aquatic life. R50: Very toxic to aquatic organisms. |
| Nalco Trac109 (sodium nitrite and sodium hydroxide) | 0.01 | Not known | Boiler treatment chemical - corrosion and scale inhibitor H400: Very toxic to aquatic life. |

3.2.1 Fuel Storage and Handling

Gas oil (diesel) is used as fuel for electricity generators and the fire systems. MAG have confirmed that the risks of fugitive releases of fuel to the soils and groundwater are managed through:

- storage of fuel in above ground tanks in accordance with the Oil Storage Regulations
- good quality hardstanding in tank storage and refuelling areas
- pressure testing of below ground gas oil distribution pipework
- monitoring of stock inventories to highlight any unexplained loss of inventory.

Fuel storage

Fuel oil stored externally is in bunded tanks fitted with high-level alarms. Tank bunds are impermeable and resistant to the stored materials with a capacity greater than 110% of fuel oil stored.

Fuel is stored in bulk tanks and transferred using fuel Bowsers that deliver locally then pump into smaller local smaller tanks and day tanks. An inventory of fuel tanks associated with the combustion plant subject to this permit application is provided in Table 3.1. The Bulk Storage Inventory (EP07-D01) record information on all MAG bulk storage tanks including their compliance with the OSR and/or the Aerodrome Manual and is updated as required following changes to tanks or internal auditing.

All external stores of fuel over 200 litres comply with the standards set out within the Control of Pollution (Oil Storage) (England) Regulations.

There are no below ground fuel tanks associated with the combustion plant.

Inspections

All Manchester Airport bulk storage tanks are regularly inspected. The inspection includes an assessment of the tank, its secondary containment and surrounding land and compliance with the OSR.

Stock checks and tank levels are regularly monitored. Manchester Airport standby generator tank levels are checked weekly and recorded on the Standby Engine Check Sheet.

Individual departments are responsible for any calibration requirements on level sensors, fuel gauges etc.

Where underground pipework is part of the Installation, it is pressure tested in accordance with the OSR.

Bowers

Mobile fuel bowers that cannot be moved under their own power are double skinned /self-bunded with 110% of the tank capacity provided within the bund. Bowers are maintained in good condition and hatch/fill points kept secured, and preferably locked to prevent unauthorised use.

Fuel bowers that are moved under their own power are maintained in good condition with no leaks, including but not limited to, hoses, sight glasses, fill points, valves and pumps. Hoses are secured when the vehicle is in transit. A spill kit is carried on the vehicle to allow the clean-up of small spillages, including any plastic bags/shovels to facilitate the sweep up and disposal of any used spill kit by the operator.

Prompt remedial action will be undertaken in the event of a fuel spillage. This will be in accordance with EMOP06 – Spill response. Refer to Sections 4.4.5 and 7.2 of the Application Support Document for additional information on spill response.

Typical annual fuel consumption is around 59.5 tonnes a year based on historical consumption, typically broken down as follows:

- Pumps – 3,918 litres
- Boilers – 36,272 litres
- Generators – 19,310 litres

Consumption data for temporary equipment is based on gas oil fuel invoices or deliveries from the third party suppliers.

Activity data for ground power units is estimated based on the bowser meter, at the point of dispersal.

Table 3-1: Fuel and chemical storages

| Tank name | Purpose | Location | Tank type | Position | Contents | Max tank capacity (litres) |
|--|-------------------|------------------------|-----------|----------|----------|----------------------------|
| A2 MSCP standby generator | Standby generator | T1 - a2 mscp | Bulk | External | Diesel | 968 |
| ATC tower standby generator | Standby generator | West side | Bulk | Internal | Diesel | 15,200 |
| B sub standby generator day tank (b1b) | Standby generator | Airfield-taxiway alpha | Day tank | Internal | Diesel | 1,000 |

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| Tank name | Purpose | Location | Tank type | Position | Contents | Max tank capacity (litres) |
|--|--------------------|------------------------|------------|----------|----------|----------------------------|
| B sub standby generator main tank | Standby generator | Airfield-taxiway alpha | Bulk | External | Diesel | 15,000 |
| B sub watchman day tank | Standby generator | Airfield-taxiway alpha | Day tank | Internal | Diesel | 3,420 |
| C sub standby generator day tank | Standby generator | Airfield-southside | Day tank | Internal | Diesel | 6,299 |
| C sub standby generator main tank | Standby generator | Airfield - southside | Bulk | External | Diesel | 16,000 |
| Cargo 2 & 3 day tank | Fire hydrant pumps | Cargo | Day tank | Internal | Diesel | 550 |
| Cargo 4 day tank | Fire hydrant pumps | Cargo | Day tank | Internal | Diesel | 300 |
| D sub (b1d) | Standby generator | Airfield - stand 61 | Bulk | External | Diesel | 17,000 |
| Fire station (north) standby generator main tank | Standby generator | Fire station | Day tank | Internal | Diesel | 297 |
| Fire training ground - kerosene tank | Fire training | Fire training ground | Bulk | External | Kerosene | |
| G sub standby generator day tank | Standby generator | T3 - stand 55 | Day tank | Internal | Diesel | 1,000 |
| G sub standby generator tank | Standby generator | T3 - stand 55 | Bulk | Internal | Diesel | 1,319 |
| Gen 01 | Lighting | B30 | Integrated | Internal | Diesel | 170 approx. |
| Gen 03 | Lighting | B30 | Integrated | Internal | Diesel | 170 approx. |
| Gen 04 | Lighting | B30 | Integrated | Internal | Diesel | 170 approx |
| Gen 05 | Lighting | B30 | Integrated | Internal | Diesel | 170 approx |
| Gen 08 | Lighting | B30 | Integrated | Internal | Diesel | 170 approx |
| Gen 12 | Mobile generator | B30 | Integrated | Internal | Diesel | |
| Gti | Standby generator | Gti | Day tank | Internal | Diesel | 800 |
| H sub standby generator day tank | Standby generator | T1 - tower road | Day tank | Internal | Diesel | 1,066 |
| H sub standby generator main tank | Standby generator | T1 - tower road | Bulk | External | Diesel | 9,590 |

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| Tank name | Purpose | Location | Tank type | Position | Contents | Max tank capacity (litres) |
|--|--|------------------------|------------|----------|-----------|----------------------------|
| H4 mt waste oil tank | Mt operation | Hangar 4 | Bulk | External | Waste oil | 7,500 |
| Mobile 1 standby generator t2 service yard | Standby generator (trailer mounted) | T2 - east service yard | Integrated | External | Diesel | 2,091 |
| Mobile 2 standby generator b sub | Standby generator (trailer mounted) | Airfield - b sub | Integrated | External | Diesel | 2,091 |
| Mobile 3 standby generator b sub | Standby generator (trailer mounted) | Airfield - b sub | Integrated | External | Diesel | 2,091 |
| Portable gen 02 | Mobile generator | B30 | | Internal | Diesel | |
| Portable gen 03 | Mobile generator | B30 | | Internal | Diesel | |
| Pump station b7 | Standby generator | Thorley Lane | Bulk | Internal | Diesel | 880 |
| Q sub standby generator main tank | Standby generator | T1 - outwood lane | Bulk | Internal | Diesel | 580 |
| R sub standby generator day tank 1 | Standby generator | West side | Day tank | Internal | Diesel | 1,200 |
| R sub standby generator day tank 2 | Standby generator | West side | Day tank | Internal | Diesel | 1,500 |
| R sub standby generator main tank | Standby generator | West side | Bulk | External | Diesel | 24,822 |
| R1 hydrant pump | Standby pump (serving for fire hydrant system) | Airfield - r1 | Day tank | Internal | Diesel | 154 |
| R2 hydrant pump | Standby pump (serving for fire hydrant system) | Airfield - r2 | Day tank | Internal | Diesel | 154 |
| R2/1 sub standby generator day tank r2 west | Standby generator | Airfield - r2 | Day tank | Internal | Diesel | 5,630 |
| R2/1 sub standby generator main tank r2 west | Standby generator | Airfield - r2 | Bulk | External | Diesel | 15,100 |
| R2/2 south fire station | Standby generator | Airfield - sfs | Bulk Tank | Internal | Diesel | 860 |
| R2/2a sub standby generator day tank r2 west | Standby generator | Airfield - r2 | Day tank | Internal | Diesel | 745 |
| R2/2a sub standby generator main | Standby generator | Airfield - r2 | Bulk | External | Diesel | 5,237 |

| Tank name | Purpose | Location | Tank type | Position | Contents | Max tank capacity (litres) |
|--|--------------------|-------------------------|-----------|-------------------------|--|----------------------------|
| tank r2 west south road tunnel | | | | | | |
| R2/3 sub standby generator day tank r2 east | Standby generator | Airfield - r2 | Day tank | Internal | Diesel | 2 x 5630 |
| R2/3 sub standby generator main tank r2 east | Standby generator | Airfield - r2 | Bulk | External | Diesel | 2 x 15,100 |
| Runway viewing park | Standby generator | Avp | Bulk | External | Diesel | 2,000 |
| South fire station fuel oil tank | Standby generator | Airfield - r2 | Bulk | Internal | Diesel | 947 |
| Southern front standby generator day | Standby generator | T1 - southern front | Day tank | Internal | Diesel | 1,200 |
| Southern front standby generator main tank | Standby generator | T1 - southern front | Bulk | Internal | Diesel | 3,181 |
| T1 sprinkler system | Pump | T1 - plant room 83 | Day tank | Internal | Diesel | <100 |
| T1 water treatment | Oil & chem storage | T1 | lbc/drums | Internal (Boiler House) | Chemical (chemicals for water treatment) | |
| T2 a1 sub CHP | Standby generator | T2 - CHP | Day tank | Internal | Diesel | 1,200 |
| T2 a2 sub standby generator | Standby generator | T2 - stand 206 | Bulk | Internal | Diesel | 1,676 |
| T2 b1 sub standby generator | Standby generator | T2 east service yard | Day tank | External | Diesel | 1,900 |
| T2 g2a standby generator | Standby generator | T2 west service yard | | Internal | Diesel | 4,620 |
| T3 h1 sub standby generator day tank | Standby generator | T3 - baggage hall | Day tank | Internal | Diesel | 1,520 |
| T3 h1 sub standby generator main tank | Standby generator | T3 - baggage hall | Bulk | Internal | Diesel | 3,750 |
| Voyager | Standby generator | Voyager | Bulk | Internal | Diesel | 360 |
| West apron ph6a | Standby generator | Airfield - t2 stand 112 | Bulk | External | Diesel | 20,000 |

3.2.2 Chemical Storage and Handling

Boiler treatment chemicals, corrosion and scale inhibitors are utilised as required, to attain the appropriate dosage to protect the associated pipework. The chemicals are brought on to site and stored temporarily in an appropriately sized bund in the relevant plant location room before being removed from site.

Material safety data sheets for the chemicals are provided in Appendix E.

3.2.3 Maintenance Oils

Oil is required for maintenance of the boiler and generator units. All servicing and maintenance activities for the combustion plant is undertaken by contractors on behalf of Manchester Airport. Contractors are contractually required to remove and appropriately dispose of all wastes generated by their activities.

3.2.4 Wastes

There is no wastewater routinely generated from the combustion plant. The boilers are hot water boilers (not steam) so are fully flooded systems that do not require to be blow down.

Waste oils are routinely generated through maintenance activities. Other maintenance wastes include oily rags, oil absorbent materials and filters. All servicing and maintenance activities for the combustion plant is undertaken by contractors on behalf of Manchester Airport. Minimal quantities of waste are generated from maintenance activities.

Contractors are contractually required to remove and appropriately dispose of all wastes generated by their activities. Manchester Airport does not provide storage facilities for contractor wastes. The waste storage areas are secure with restricted access.

Waste management techniques at the site are detailed within the site's Environmental Management Operational Procedure EMOP10 – Waste Management document.

3.3 Environmental Risk Assessment

Table 3.3.1 provides an environmental risk assessment for the fugitive release of substances used and produced by the application activities and Table 3.3.2 provides an assessment of risk that these substances could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

Table 3.3.1: Fugitive Emissions Risk Assessment

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|------------------------|--|-------------------------|-----------------------------|--|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| Leaks/ spillages from above ground fuel storage tanks | Surrounding watercourses; Timperley Brook, River Bollin, Cotterill Clough, Birkin Brook - Mobberley Brook. | Surface water drainage | <p>All external stores of fuel over 200 litres comply with the standards set out within the Control of Pollution (Oil Storage) (England) Regulations.</p> <p>External tanks are bunded and fitted with high-level alarms. Tank bunds are impermeable and resistant to the stored materials with a capacity greater than 110% of fuel oil stored.</p> <p>Tank and bund condition is inspected regularly as part of Manchester Airport's internal audit programme.</p> <p>Stock checks and tank levels are regularly monitored.</p> <p>The majority of fuel storage tanks are located in areas where the surface water drains discharge into the site's containment catchment system. Individual catchments can be put into 'containment mode' and diverted to public sewer in the event of a spill. Site drainage is operated in accordance with Manchester Airports Surface Water Drainage Management Plan (SWDMP).</p> <p>All areas that are not drained to the containment system discharge to surface</p> | Low | Pollution of surface waters | Not significant given the risk management measures |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|------------------------|---|-------------------------|-----------------------------|--|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| | | | <p>water outfalls via oil interceptors, with the exception of the area served by the B7 pumping station.</p> <p>Oil interceptors are inspected on a six-monthly basis and an external contractor skims any oil/ desludges them as required.</p> | | | |
| Leaks/ spillages of fuel during transfer | Surrounding watercourses; Timperley Brook, River Bollin, Cotterill Clough, Birkin Brook - Mobberley Brook. | Surface water drainage | <p>Fuel is stored in bulk tanks and transferred using fuel bowzers that deliver into smaller local tanks and day tanks.</p> <p>Mobile fuel bowzers that cannot be moved under their own power are double skinned /self-bunded with 110% of the tank capacity provided within the bund.</p> <p>Bowzers are maintained in good condition and hatch/fill points kept secured and locked to prevent unauthorised use.</p> <p>Inspections are undertaken for leaks, including hoses. Sight glasses, fill points, valves and pumps are regularly checked.</p> | Low | Pollution of surface waters | Not significant given the risk management measures |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|----------------------------------|---|-------------------------|--|--|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| | | | <p>Hoses are secured when the vehicle is in transit.</p> <p>A spill kit is carried on the vehicle to allow the clean-up of small spillages.</p> <p>Prompt remedial action is undertaken in the event of a fuel spillage, in accordance with EMOP06 – Spill response.</p> | | | |
| Leaks/ spillages from above ground fuel storage tanks and mobile bowers | <p>Ground and groundwater</p> <p>The majority of the site is underlain by superficial Devensian till deposits described as sandy, gravelly, cobbly clay. These deposits are classified as a secondary undifferentiated aquifer. Localised areas of glaciofluvial deposits are recorded in the north of the site and where the River Bollin crosses Runway 2, alluvium deposits</p> | Seepage into ground/ groundwater | <p>All fuel tanks are sited on good quality hard surfacing which directs any spills into the surrounding surface water drainage system and acts as an effective barrier to prevent any run-off reaching the groundwater.</p> <p>All external stores of fuel over 200 litres comply with the standards set out within the Control of Pollution (Oil Storage) (England) Regulations (OSR).</p> <p>External tanks are bunded and fitted with high-level alarms. Tank bunds are impermeable and resistant to the stored materials with a capacity greater than 110% of fuel oil stored.</p> <p>Fuel storage areas are inspected regularly as part of Manchester Airport's internal audit programme. The inspection includes an assessment of the storage tanks, secondary</p> | Low | Contamination of soils and groundwater | Not significant given the risk management measures |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|---|---------|--|-------------------------|-----------------------------------|---|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| | <p>underlie the watercourse. These deposits are classified as a Secondary A aquifer.</p> <p>The majority of the site is underlain by the Bollin Mudstone Member, a Secondary B bedrock aquifer.</p> | | <p>containment and surrounding land and compliance with the OSR.</p> <p>A planned preventative maintenance programme is in place for all elements of the drainage system. Reactive maintenance is also undertaken. Maintenance of the drainage system is undertaken by the on-site Water Services team supported with specialist subcontractors as appropriate.</p> | | | |
| Leaks/spillages from below ground pipework | | | <p>There are no below ground fuel tanks associated with the generators. Where underground pipework connects storage tanks to stationary generators and is part of the Installation, it is pressure tested in accordance with the OSR.</p> <p>Fuel stock checks and tank levels are regularly monitored and any significant unaccounted loss of fuel would be investigated.</p> <p>Below ground pipework has been installed in accordance with the airport asset management standard relevant at that time.</p> | Low | Contamination of soils and ground | Low following implementation of mitigation measures |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|----------------------------------|--|-------------------------|------------------------------|--|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| Leaks/ spills of boiler treatment chemicals | Ground and groundwater | Seepage into ground/ groundwater | <p>The chemicals are brought on to site by the maintenance contractor and stored temporarily in an appropriately sized bund in the relevant plant room before being removed from site.</p> <p>Spill kits are available in the plant rooms in the event of a spill.</p> <p>Additionally, there are no internal drains within the plant rooms discharging into the surface water system.</p> | Very low | Pollution of the environment | Not significant given the risk management measures |
| | Surrounding watercourses; Timperley Brook, River Bollin, Cotterill Clough, Birkin Brook - Mobberley Brook. | Surface water drainage | | | | |
| Leaks/ spills of maintenance oils and wastes | Ground and groundwater | Seepage into ground/ groundwater | Waste oils and other maintenance wastes e.g. oily rags, oil absorbent materials and filters are removed from site by the maintenance contractors. Manchester Airport does not provide storage facilities for | Very low | Pollution of the environment | Not significant given the risk management measures |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|------------------------|--|-------------------------|-------------|--------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of Exposure | Consequence | Overall Risk |
| | Surrounding watercourses; Timperley Brook, River Bollin, Cotterill Clough, Birkin Brook - Mobberley Brook. | Surface water drainage | contractor wastes. The waste storage areas are secure with restricted access. Waste management techniques at the site are detailed within the site's Environmental Management Operational Procedure EMOP10 – Waste Management document. All contractors are required to follow EMOP10 and related procedures such as EMOP06 – spill response. | | | |

Table 3.3.2: Risk of Accidental Releases

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|--|----------------------------------|---|-------------------------|------------------------------|--|
| Hazard | Receptor | Pathway | Risk Management | Probability of exposure | Consequence | Overall Risk |
| Spillage of fuel | Ground and groundwater | Seepage into ground/ groundwater | The Manchester Airport site is an Upper Tier Establishment, under the COMAH Regulations 2015 due to the quantity of petroleum products and alternative fuels stored that could potentially result in a major accident. The site operates a Major Accident Prevention Policy. Manchester Airport has a long-established spillage procedure whereby anyone finding or causing a spill must report it. Failure to | Low | Pollution of the environment | Not significant given the risk management measures |
| | Surrounding watercourses; Timperley Brook, River Bollin, Cotterill Clough, | Surface water drainage | | | | |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|--|---|--|--|-------------------------|------------------------------|--------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of exposure | Consequence | Overall Risk |
| | Birkin Brook - Mobberley Brook. | | <p>report a spillage is an airfield infringement can attract a fine.</p> <p>Containment measures for tanks and bowzers are detailed in Table 3.3.1</p> <p>Additionally, Airside Standing instruction 21 – Spillages details the details the necessary procedures should there be spillages of fuel, oil or any chemical. EMOP06 – Spill response describes actions to be taken in the event of any spillages that have the potential to enter the surface water drainage system or in the event of any contamination of drainage systems, public services or watercourses.</p> | | | |
| Accidental fire causing the release of polluting material to water or land | Surrounding watercourses, shallow soils and groundwater | Contaminated firewater run-off into surface water drains and overland run off onto unsurfaced ground | <p>Manchester Airport emergency plans include actions to be taken in the event of an emergency to protect local watercourses from pollution and consult with environmental regulatory agencies as required. These plans are periodically tested.</p> <p>The majority of the site's drainage system can be contained and diverted to public sewer in the event of a spill or fire incident. Site drainage is operated in accordance with</p> | Very low | Pollution of the environment | Very low |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|-------------------------------------|--|--|-------------------------|------------------------------|--------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of exposure | Consequence | Overall Risk |
| | | | <p>Manchester Airports Surface Water Drainage Management Plan (SWDMP).</p> <p>The site is regulated under COMAH and operates a Major Accident Prevention Policy.</p> | | | |
| Flood | Soils / Groundwater / surface water | Flooding of combustion plant or fuel tank storage resulting in a loss of containment | <p>Areas of the site primarily near the southern boundary (denoted by the site fence line), sit within Flood Zone 2 (i.e. annual probability of between 1:1,000 and 1:100 of river flooding) and Flood Zone 3 (i.e. annual probability of 1:100 or greater of river flooding).</p> <p>Flood Zone 2 and 3 areas are located in parts of the southern western sections of the airport site, largely surrounding the River Bollin. Some flood Zone 2 areas are also present north-west of the site, with Zone 3 areas to the north.</p> <p>The site drainage is managed by local balancing ponds or tanks to provide flow attenuation. Pumps are controlled automatically on level sensors, and operated on duty/standby to provide resilience in the event of pump failure or maintenance. The pump systems are interlinked such that flows will only be</p> | Very low | Pollution of the environment | Very low |

| What do you do that can harm and what could be harmed | | | Managing the Risk | Assessing the Risk | | |
|---|----------|---------|---|-------------------------|-------------|--------------|
| Hazard | Receptor | Pathway | Risk Management | Probability of exposure | Consequence | Overall Risk |
| | | | <p>passed forward within the containment system if there is capacity downstream.</p> <p>Weather is monitored and appropriate actions will be undertaken in accordance with the Site Operational Procedures.</p> | | | |

4. Statement of Site Condition

The generators which form part of the combustion plant installation are run on gas oil (diesel). Leaks and spillages of fuel from the generators or associated tanks and pipework has the potential to pollute soils, groundwater and surface waters with diesel range hydrocarbons. Thus, it is important that adequate containment measures, operating techniques and spill response measures are in place.

The boilers are all fuelled by natural gas and thus their operation represents a lower risk of pollution to soils, groundwater and surface waters.

Oil is required for maintenance of the boiler and generator units. The use of boiler treatment chemicals is required to protect operation of the boiler systems against corrosion and scale formation.

Control measures are discussed within this Application Site Condition Report and include:

- All external stores of fuel over 200 litres comply with the standards set out within the Control of Pollution (Oil Storage) (England) Regulations.
- Tanks are bunded with a capacity greater than 110% of fuel oil stored and fitted with high-level alarms.
- All fuel tanks are sited on good quality hard surfacing which directs any spills into the surrounding surface water drainage system and acts as an effective barrier to prevent any run-off reaching the groundwater.
- Tank and bund condition is inspected regularly as part of Manchester Airport's internal audit programme.
- Fuel stock checks and tank levels are regularly monitored.
- Mobile fuel bowzers are double skinned /self-bunded with 110% of the tank capacity provided within the bund. A spill kit is carried on each vehicle to allow the clean-up of small spillages.
- Bowzers are maintained in good condition and hatch/fill points kept secured and locked to prevent unauthorised use. Hoses are secured when the vehicle is in transit.
- Checks of the bowzers are undertaken for leaks, including hoses. Sight glasses, fill points, valves and pumps are regularly checked.
- Where underground pipework is part of the Installation, it is pressure tested in accordance with the OSR.
- Maintenance oils and boiler treatment chemicals are brought on to site by the maintenance contractor and stored temporarily in an appropriately sized bund in the relevant plant room before being removed from site.
- Prompt remedial action is undertaken in the event of a spillage, in accordance with EMOP06 – Spill response.
- The majority of the site's drainage system can be contained and diverted to public sewer in the event of a spill or fire incident. Site drainage is operated in accordance with Manchester Airports Surface Water Drainage Management Plan (SWDMP).
- Areas that are not drained to the containment system discharge to surface water outfalls via oil interceptors, with the exception of one location.
- The site is regulated under COMAH and operates a Major Accident Prevention Policy.

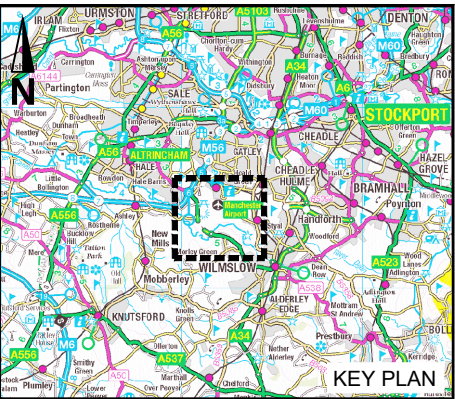
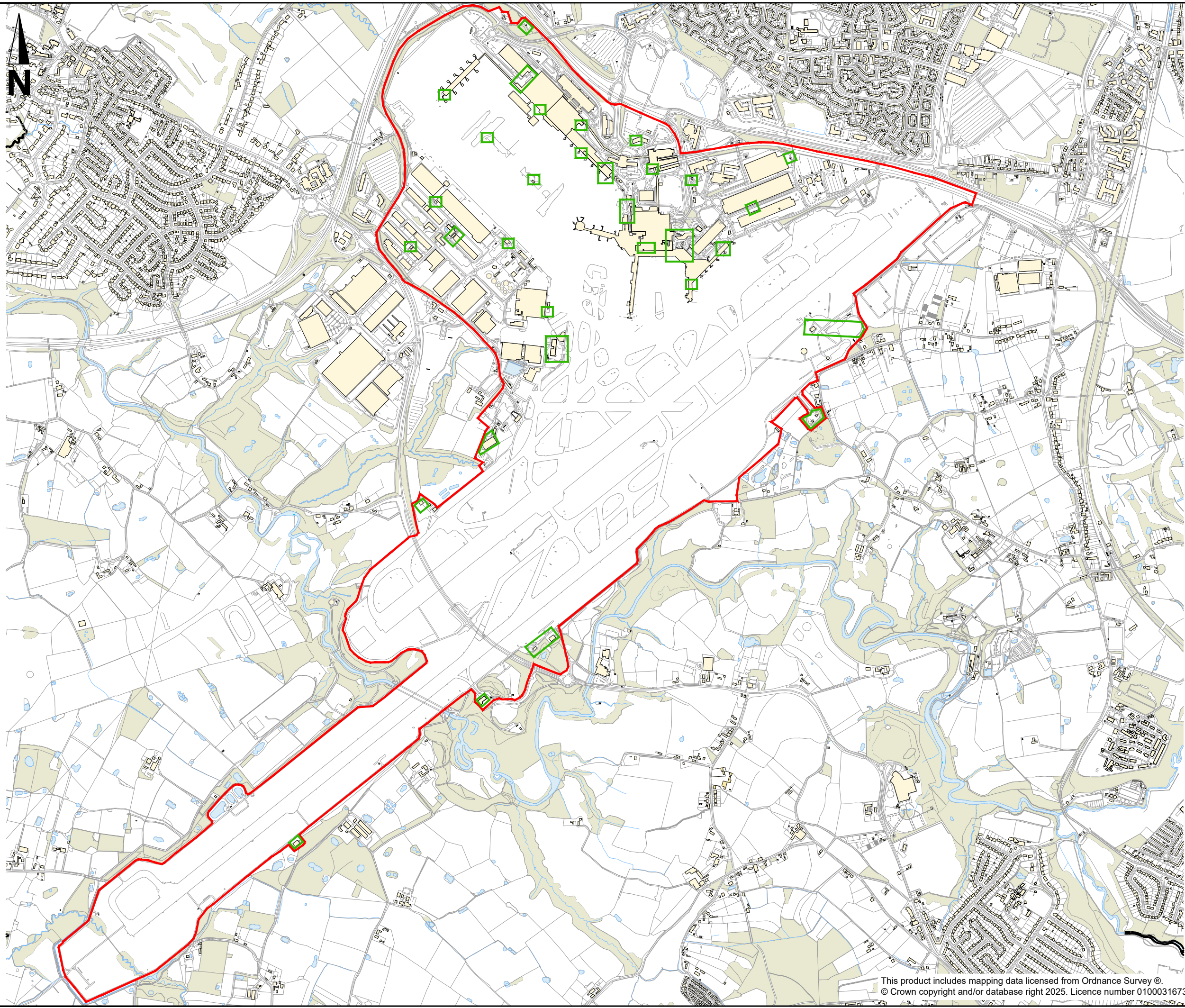
These control measures are considered to be adequate to provide environmental protection, such that there should be no adverse impact upon the soils, groundwater or surface waters arising from the permitted activities.

No baseline soil and groundwater reference data has been collected to support this Application Site Condition Report.

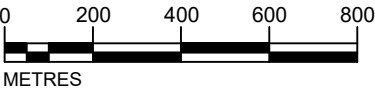
Manchester Airport Plc. recognises that the operator of a permit maintains a legal responsibility to address contamination arising from the permitted activities upon permit surrender. Operating records will be maintained throughout the lifetime of the permit including records of maintenance, inspection and any spill incidents with associated remedial measures.


Appendix A. Site Location Plan

C:\Users\AL.Roberts\OneDrive - Jacobs Engineering Group Inc\AUR-Work Projects\Manchester Airport\MAG42059-JAC-DR-P-0001.dwg - 24/06/2025 08:08:50 - FIGURE 1 - AL.Roberts



- LEGEND
- Site Boundary
 - Permit Boundary

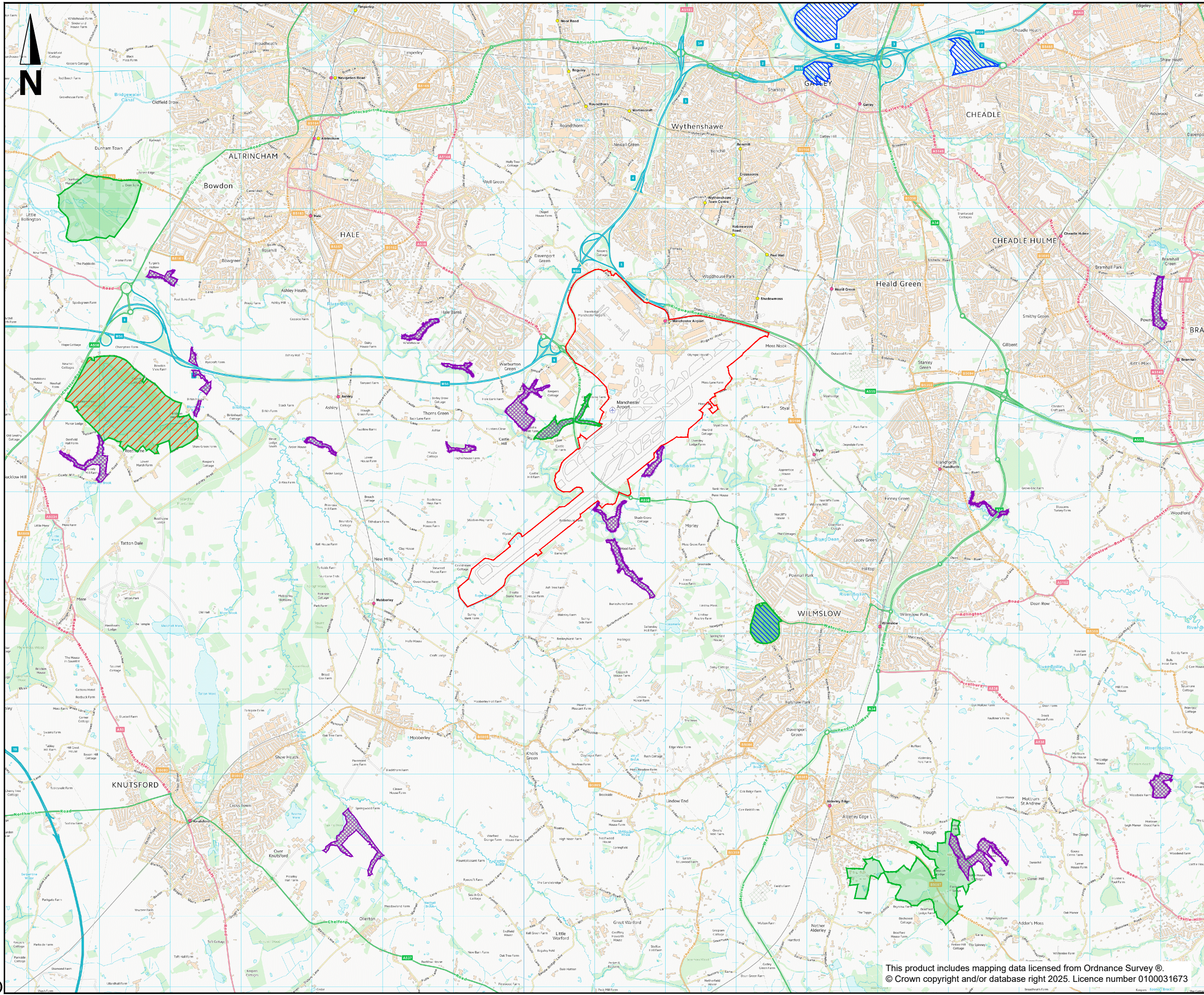


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| P01 | JUNE, 2025 | PERMITTING | | AR | DH | SP | XX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| FIGURE 1 COMBUSTION PERMIT SITE BOUNDARY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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Appendix B. Site Setting Information

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LEGEND

- Site Boundary
- Site of Special Scientific Interest (SSSI)
- National Nature Reserve
- Local Nature Reserve
- Ancient Woodland

NOTE:

There are no SPA, SAC, AONB or RAMSAR sites within 6.5km of the site boundary.

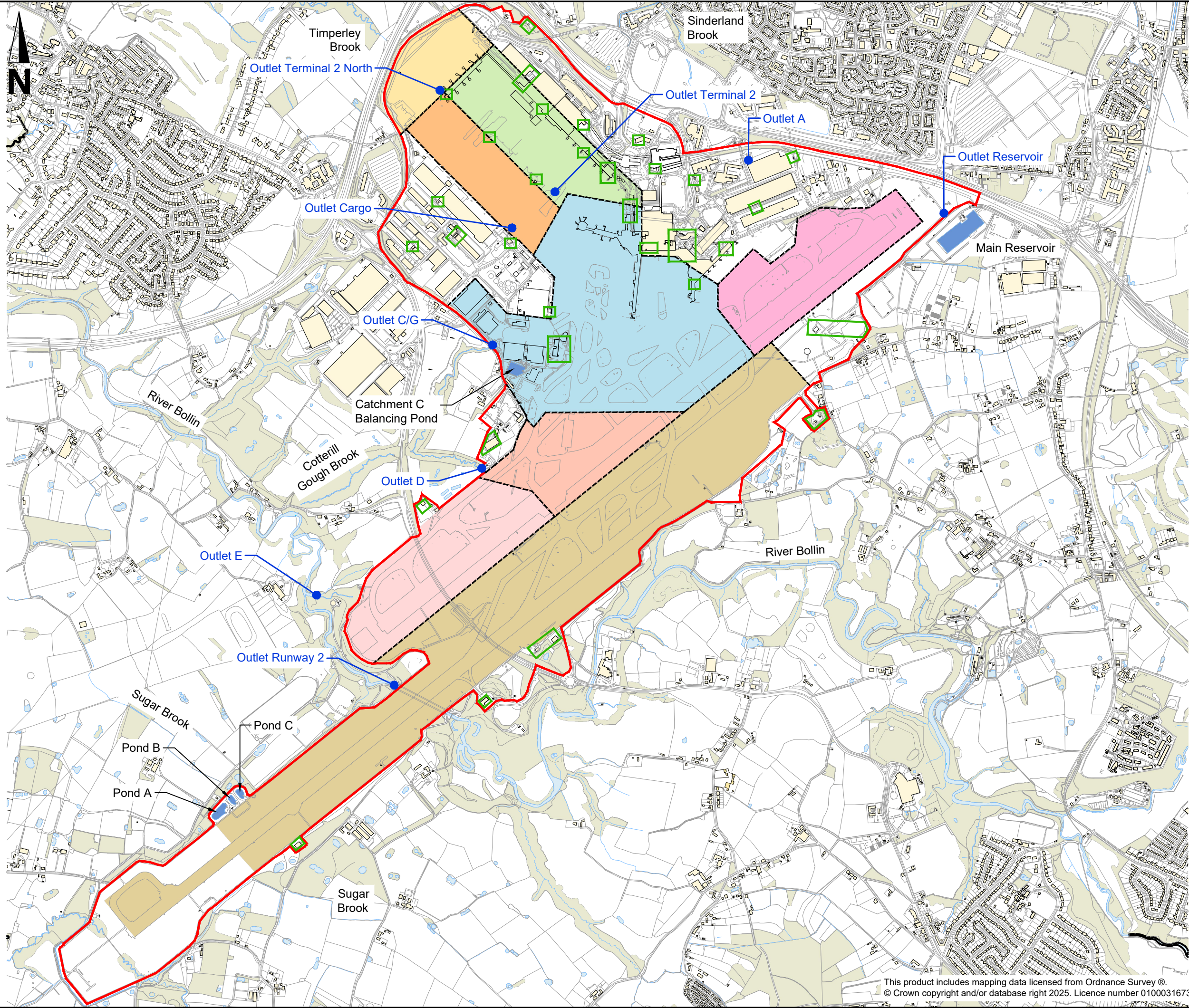
- Rixton Clay Pits SAC (14.13km West-Northwest)
- Manchester Mosses SAC (15.95km West-Northwest)
- Rostherne Mere Ramsar (6.5km West)
- Midland Mere & Mosses - Phase 1 Ramsar (7.43km Southwest)

| | | | | | | | | | |
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| Rev | Rev. Date | | Purpose of revision | | | Drawn | Checked | Rev'd | Appr'd |
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| <div>Project</div> <div>ENVIRONMENTAL PERMIT APPLICATION MANCHESTER AIRPORT</div> | | | | | | | | | |
| <div>Drawing title</div> <div>FIGURE 8 ENVIRONMENTAL CONSTRAINTS</div> | | | | | | | | | |
| <div>Drawing status</div> <div>PERMITTING</div> | | | | | | | | | |
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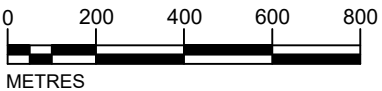
Appendix C. Surface Water Drainage Catchments


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- LEGEND
- Site Boundary
 - Permit Boundary
 - Water Courses
 - Ponds
 - Permitted Discharge Points

- SURFACE WATER DRAINAGE CATCHMENTS
- Terminal 2 Catchment
 - Cargo Catchment
 - Catchment A
 - Catchment C
 - Catchment D
 - Catchment E
 - Terminal 2 North Catchment
 - Runway 2 Catchment



| | | | | | | | | |
|--|------------|---------------------|--------------|---------|-------|--------|--|--|
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| <div>Project</div> <div>ENVIRONMENTAL PERMIT APPLICATION MANCHESTER AIRPORT</div> | | | | | | | | |
| <div>Drawing title</div> <div><div></div><div>SURFACE WATER DRAINAGE CATCHMENTS</div></div> | | | | | | | | |
| <div>Drawing status</div> <div>PERMITTING</div> | | | | | | | | |
| Scale | | AS SHOWN @ A3 | DO NOT SCALE | | | | | |
| Jacobs No. | | MAG42059 | Rev | | P01 | | | |
| Client no. | | | | | | | | |
| <div>Drawing number</div> <div>MAG42059-JAC-DR-P-0008</div> | | | | | | | | |
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Appendix D. Current Discharge Permits

Appendix C: Table of Discharge Consents

| Permit number | Date effective from | Activity Reference | Description of activity | Limits of specified activity | Discharge point (NGR) | Receiving water/environment | Airport surface water catchment |
|---------------|---------------------|--------------------|--|---|--------------------------------|---|---------------------------------|
| EPR/CB3299EN | 01.03.2019 | A1 | Discharge of trade effluent consisting of contaminated surface water via Outlet E (to Double Wood Brook) | The following limits of specified activity apply to activities A1 to A13: (a) Contamination of the surface water is only permitted from aircraft and runway/pavement anti-icing and de-icing activities. | Outlet E (SJ 80307 83316) | Double Wood Brook | Catchment E |
| | | A2 | Discharge of trade effluent consisting of site drainage in storm conditions via Outlet E (to Double Wood Brook) | | | | |
| | | A3 | Discharge of trade effluent consisting of contaminated surface water via Outlet D (to Badger Brook) | (b) Urea shall not be utilised on the airport site for any purpose. | Outlet D (SJ 81085 83940) | Badger Brook | Catchment D |
| | | A4 | Discharge of trade effluent consisting of site drainage in storm conditions via Outlet D (to Badger Brook) | | | | |
| | | A5 | Discharge of trade effluent consisting of contaminated surface water via Outlet C/G (to Cotterill Clough) | (c) All anti-icing and de-icing products utilised on site shall not create an ammonia loading within the trade effluent. | Outlet C/G (SJ 81122 84506) | Cotterill Clough | Catchment C |
| | | A6 | Discharge of trade effluent consisting of site drainage in storm conditions via Outlet C/G (to Cotterill Clough) | | | | |
| | | A7 | Discharge of trade effluent consisting of site drainage in | | Outlet Cargo | Unnamed surface water drain, tributary of the River Bollin (via | Cargo Catchment |

Manchester Airport Application Site Condition Report

| Permit number | Date effective from | Activity Reference | Description of activity | Limits of specified activity | Discharge point (NGR) | Receiving water/environment | Airport surface water catchment |
|---------------|---------------------|--------------------|---|------------------------------|--|---|---|
| | | | storm conditions via Outlet Cargo (to River Bollin) | | (SJ 81211 85122) | the Castle Mill outfall at SJ 80107 83695) | |
| | | A8 | Discharge of trade effluent consisting of site drainage in storm conditions via Outlet Terminal 2 (to River Bollin) | | Outlet Terminal 2 (SJ 81429 85315) | | Terminal 2 Catchment |
| | | A9 | Discharge of trade effluent consisting of contaminated surface water via Outlet Runway 2 (to River Bollin) | | Outlet Runway 2 (SJ 80621 82908) | River Bollin | Runway 2 Catchment |
| | | A10 | Discharge of trade effluent consisting of site drainage in storm conditions via Outlet Runway 2 (to River Bollin) | | | | |
| | | A11 | Discharge of trade effluent consisting of contaminated surface water via Outlet A (to River Bollin) | | Outlet A (SJ 82356 85419) | Unnamed surface water drain, tributary of the River Bollin (via the Castle Mill outfall at SJ 80107 83695) | Catchment A |
| | | A12 | Discharge of trade effluent consisting of contaminated surface water via Outlet Reservoir (to River Bollin) | | Outlet Reservoir (SJ 83310 85194) | | Main Reservoir Catchment (eight surface water catchments at the airport combined) |
| | | A13 | Discharge of trade effluent consisting of contaminated surface water via Outlet Terminal 2 North (to Timperley Brook) | | Outlet Terminal 2 North (SJ 80883 85727) | Unnamed surface water drain, tributary of Timperley Brook (via the Timperley Brook outfall at SJ 80630 85976) | Terminal 2 North Catchment |

Environmental Management Operational Procedure

EMOP10 – Waste management

| Ref | Procedure | Responsibility |
|-------|--|----------------|
| 1 | PURPOSE | |
| 1.1.1 | This procedure defines the mechanisms for waste management, to ensure the necessary control during handling, storage and transportation off-site, and to ensure compliance with relevant regulatory and other requirements. | |
| 2 | PRIMARY RESPONSIBILITY | |
| 2.1.1 | The Head of Facilities Management has the primary responsibility for the management of waste through the main waste contract. Other responsibilities are as outlined in the body of the procedure. | |
| 3 | ENVIRONMENTAL PERMITS AND EXEMPTIONS | |
| 3.1.1 | All permits and exemptions held by MAG with regards to waste at Manchester Airport will be recorded in EP02-D03 Environmental Permits and Exemptions Inventory. This will be updated by the Environment & Energy department as required and not less than annually. | EEM |
| 4 | WASTE CONTRACTS | |
| 4.1.1 | MAG co-ordinates the main waste contract for its own and most tenant and concessionaires' general waste and recyclables from the site, including Category 1 International Catering Waste (Cat 1 ICW) and some hazardous wastes. The contract is contracted as described within the MAG FM Contract Service Information - Soft Services. In summary, the waste contractor provides bulk containers and services for on-site storage, carriage and recycling, recovery or disposal of waste. On-site day-to-day management is also provided including checking compliance, bulking of materials and managing collection frequencies, plus contract management services including management information, Health and Safety (H&S) advice and central office services. | FM-SS |
| 4.1.2 | MAG does not provide waste facilities for: | |

- companies operating on a ground lease who must provide and use their own facilities (e.g. aircraft catering, hotels etc);
- other companies on-site whose lease conditions exclude waste disposal;
- construction contractors' waste;
- hazardous wastes generated by any company on site, other than those within the main contract or as otherwise agreed;
- clinical wastes generated by any company other than MAG;
- liquid wastes generated by any company other than MAG.

In these instances, then the tenant or local manager is responsible for putting in place appropriate facilities and contracts.

Tenants/
Local
Managers

4.1.3 Cat 1 ICW will be managed in accordance with the Requirements for Cat 1 ICW at Manchester Airport protocol.

Tenants/
Waste
Contractor/
FM-SS

4.1.4 Some specialised waste contracts are also held by individual departments (e.g. motor transport hazardous waste).

Contract
managers

5 USE OF WASTE FACILITIES

5.1.1 Waste is deposited into MAG waste facilities by a number of companies across the site, including cleaning companies and retailers. Tenants and local managers should take actions to reduce waste generation and to recycle where possible. They are also responsible for identifying their waste and ensuring safe storage and appropriate disposal into the correct container, including for recycling.

Tenants/
Local
Managers

5.1.2 Tenants and local managers are responsible for ensuring their staff have been adequately trained in the use of the waste management facilities and the safe use of the compactors. The Waste Contractor will provide training to tenants as required.

Tenants/Local
Managers/
Waste
Contractor

5.1.3 Hazardous waste from across the site will be stored in the hazardous waste compound pending collection. Suitable containers such as overdrums, Waste Electrical and Electronic Equipment (WEEE) containers, battery boxes and chem-safes will be used where possible. A log will be kept of all large WEEE and "ad-hoc" chemicals or other materials stored.

Waste
Contractor

6 EVALUATION OF COMPLIANCE

6.1 Duty of care

6.1.1 All waste streams managed by MAG will be identified and recorded within EMOP10-D01 (Waste inventory), which will be updated on a periodic basis, not less than annually. The register will include information on the waste, contractor and destination and the contract holder within MAG and detail carriers' licences and

EEM

environmental permits. Copies of carriers' licence registrations and permits will also be retained.

- | | | |
|-------|---|---------------------------------------|
| 6.1.2 | Duty of care waste transfer notes and hazardous waste consignment notes will be correctly completed and provided for all waste transfers off-site. Those relating to the main waste contract will be held on MAG site by the waste contractor. Those relating to other contracts will be retained by the contract manager. | Waste Contractor/ Contract Manager |
| 6.1.3 | To cover MAG's duty of care obligations, tenants are annually required to complete and return an internal duty of care survey. This is also used to document that companies are aware of the requirements on recycling, responsible disposal and H&S. Where the survey is not returned, additional measures will be taken for any companies considered high risk with regard to waste management (e.g. cleaning companies, companies generating large quantities of waste and/or generate hazardous waste). Copies of internal duty of care responses will be retained and the information may be used to inform tenant audits. | EEM/Tenants |

6.2 Monitoring and measurement

- | | | |
|-------|---|------------------|
| 6.2.1 | The waste contractor provides management information detailing all collections from site, tonnages and recycling and recovery rate. | Waste contractor |
| 6.2.2 | An annual audit is undertaken of the main waste contract in which drivers tickets and weighbridge tickets will be checked for sample collections from the site, and checked against the waste inventory and waste management information. | EEM |
| 6.2.3 | An annual audit is also undertaken of specialist waste contracts held by MAG departments to check waste transfer notes/consignment notes have been correctly completed and retained, including consignee returns/part E, and to obtain data on tonnages of waste. | EEM |
| 6.2.4 | Checks on tenant's own waste contracts will be carried out as part of tenant audits. | EEM |

6.3 Calibration of equipment

- | | |
|-------|-----|
| 6.3.1 | N/A |
|-------|-----|

6.4 Non-compliance definition

- | | | |
|-------|--|-----|
| 6.4.1 | Non-compliances may be raised and logged within EMSP06-D03 Environmental non-conformance & observation tracker for the following reasons: | EEM |
| | <ul style="list-style-type: none"> • waste contractor notification of critical contamination within recycling; • facilities, processes or documentation not compliant with requirements of duty of care, hazardous waste regulations or animal by-products regulations; • disposal of hazardous waste or Cat 1 ICW to general waste facilities. | |

6.4.2 Observations may be raised and logged within EMSP06-D03 Environmental non-conformance & observation tracker for the following reasons: EEM

- tenant's waste contract documentation not correctly completed or retained;
- repeated contamination of recyclables.

7 COMPETENCY REQUIREMENTS

7.1.1 MAG contract managers, Waste contractor and site teams will have adequate understanding of legislative requirements for the management of waste on behalf of MAG. FM-SS/Waste Contractor/
EEM

8 EMERGENCY PREPAREDNESS

8.1.1 Spill kits will be retained within the hazardous waste compound. Any spill that cannot be managed will be dealt with in accordance with EP06 Spill Response. Waste contractor

9 RECORD KEEPING, REPORTING AND RETENTION

9.1.1 All waste documentation including duty of care notes/ hazardous waste consignment notes, carriers' licences and permits will be retained for a minimum of 3 years. Waste contractor/
Contract managers

9.1.2 Management information provided by the waste contractor and obtained during waste audits will be used for internal and external reporting on waste generation and landfill diversion performance against targets. EEM

10 SUPPORTING INFORMATION

10.1 Definitions & abbreviations

- **Contract manager** – Any MAG manager holding a contract for disposal of wastes.
- **EEM** – Environment & Energy Manager
- **FM-SS** - FM Manager – Soft Services
- **HoFM** – Head of Facilities Management
- **H&S** – Health and Safety
- **ICW** – International catering waste
- **Local managers** – MAG managers
- **Tenants** – tenants, concessionaires and any other company operating at the airport that uses MAG waste facilities
- **Waste contractor** – Main FM waste management contractor for MAG
- **WEEE** – Waste electrical and electronic equipment

10.2 Related documents and contacts

- EMOP06 - Spill Response
 - EMOP10-D01 - Waste Inventory
 - EMSP03-D02 - Environmental Permits and Exemptions Inventory
 - EMSP06-D03 - Environmental non-conformance & observation tracker
 - Internal duty of care returns
 - MAG FM Contract Service Information - Soft Services
 - Requirements for Cat 1 ICW at Manchester Airport protocol
 - Waste contract
-
- Waste Contractor's Waste Foreman – 07979 333106

10.3 Document control

Any questions concerning this procedure should be directed to environment@manairport.co.uk.