Environmental Permit Application
Manchester Airport
Habitats Assessment

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Manchester Airport Group
[Client reference]
Manchester Airport Permit Application - EPR/PP3023PR
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Environmental Permit Application Manchester Airport Habitats Assessment

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Appendices

1. Introduction

The purpose of this Habitats Assessment is to provide supplementary information to support the permit application for a bespoke combustion installation permit for Manchester Airport. Additional information referenced in the Manchester Airport Permit Application Support Document should be read in conjunction with this report.

1.1 Site Description

Manchester Airport is located approximately 14 km south-southwest from the centre of the city of Manchester in the metropolitan county of Greater Manchester. Manchester Airport encompasses an area of approximately 5.6 km^2 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 Assessment.

A site boundary plan and site layout plan are presented in Appendix A – Plans and Drawings of the Application Support Document. 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

1.1.1 Site Activities

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).

The majority of boilers considered in this application are housed in locations in and around terminals T1, T2 and T3 to satisfy the required energy demand. There are also boilers located at the on-site railway station, Olympic House (the main office for all airport staff), fire stations and associated training areas situated across the site and an energy centre, which is located near the northern boundary of the site adjacent to the Multi Storey T2 west carpark. The standby generators and fire systems are housed sporadically across the airport with GEN21 & GEN 22 and GEN 24 & GEN 25 housed adjacent to the runways. The mobile generators, by definition, are not in a fixed location.

The aggregated net thermal input of all combustion plant forming the Installation is 123.7 MWth (comprising 63.9 MWth for the boilers, 42.5 MWth for the standby generators, 15 MWth for the mobile generators and 2.4 MWth for the fire systems). The individual thermal input capacity of the combustion plant ranges from <1MWth to 7.7MWth.

Of these, the following plant exceeds 1MW thermal input capacity, as detailed in Table 4.1.1 of the Application Support Document:

- 13 boilers
- 22 standby generators

Directly associated activities include the storage and handling of raw materials, and handling of waste derived from the combustion activities.

2. Screening Protected Conservation Areas

Details of protected conservation areas were sourced from the government online mapping service MAGIC[1], which has information from Natural England and the Environment Agency (EA), as well as Appendix C of the Application Support Document. Additionally, basic pre-application advice provided by the EA included a Nature and Heritage Conservation Screening Report[2] has been considered and is enclosed in this report in Appendix A.

Special Areas of Conservation (SAC), Special Protection Areas (SPA) and RAMSAR sites within a 15km radius have been considered from the site boundary. Additionally, Special Sites of Scientific Interest (SSSI), Local Nature Reserves (LNR), National Nature Reserves (NNR), Ancient Woodland (AW) and Local Wildlife Sites (LWS) within 2km radius from the site boundary have been included.

Table 2-1 summarises protected conservation areas in 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.

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
Sunbank Wood (ID 1105635) AW & LWS	1.44	West-southwest
Warburton Wood (ID 1105631) AW	2.50	West
Hennersley 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

[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.

Description	Distance from approximate site centre (km)	Direction from approximate site centre
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	
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

There are a total of 53 designations within the relevant distances of the site boundary.

2.1 Sensitive Receptors

Other sensitive receptors located within the surrounding environment are described in the following paragraphs.

2.1.1 Human Environment

Manchester Airport is located approximately 14 km south-southwest from the centre of the city of Manchester in the metropolitan county of Greater Manchester. The M56 motorway is adjacent to the northern and 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. The airport's second runway crosses the River Bollin, a tributary of the River Mersey, which runs in a tunnel beneath the airfield.

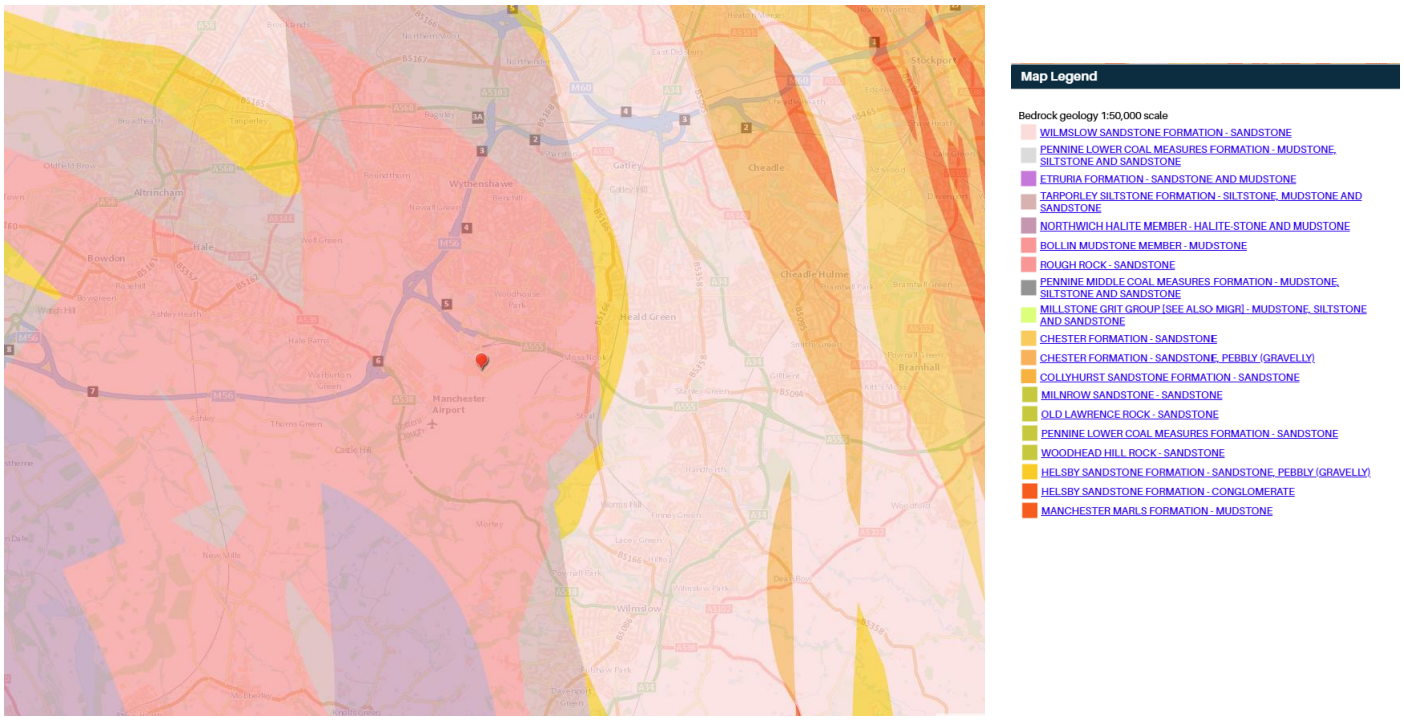
The most relevant sensitive human and ecological receptors have been identified from local mapping and are summarised in figures within Appendix C of the Application Support Document.

2.1.2 European Habitats Directive

With regard to protected conservation areas, Rixton Clay Pits SAC, Manchester Mosses SAC, Rostherne Mere RAMSAR and Midland Mere & Mosses – Phase 1 RAMSAR are all within 15km of the site boundary. Cotteril Clough SSSI as well as several AW and LWS are within 2km of the site, some of which encroach the site. These are presented in Table 2.1.

2.1.3 Geology & Hydrogeology

Data from the British Geological Survey (BGS) GeoIndex[3] records bedrock underlying the majority of the site to be the Bollin Mudstone Member. The Northwich Halite Member is present underlying Runway 2 toward the southeastern extent of the site and comprises halite with partings of mudstone. The superficial geology is recorded Devensian till deposits described as sandy, gravelly, cobbly clay across the majority of the site. 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.



Details of the site hydrogeology were sourced from the MAGIC mapping service. The Aquifer Designation Maps show that the site is situated within a Secondary B bedrock aquifer, described as low a permeability unit that stores and yields limited amounts of groundwater through characteristics like fissures and openings or eroded layers.

Manchester Airport is located within the Weaver and Dane Quaternary Sand and Gravel Aquifers (Water body ID: GB41202G991700) groundwater body[4] 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

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

[4] 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]

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.

The majority of the site is underlain by areas ranging from medium to low groundwater vulnerability 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.

There are no permitted (or known unpermitted) discharges to groundwater from the Manchester Airport[5] site.

2.1.4 Surface Water

The site is located within the Bollin Dean Mersey Upper Operational Catchment[6]. 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)
- Birkin Brook - Mobberley Brook to River Bollin (including Rostherne Brook) Water Body (Water Body ID: GB112069061370)
- Sinderland Brook (Fairywell 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, 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

[5] AtkinsRéalis (2024). Manchester Airport - Site Survey Report.

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

Category	Bollin (River Dean to Ashley Mill)	Timperley Brook	Birkin Brook - Mobberley Brook to River Bollin
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.

2.1.5 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 Airport[7]. The AQMA has been declared for elevated concentrations of annual mean nitrogen dioxide (NO_2) and 24-hour mean PM10 (particles with an aerodynamic diameter of 10 microns or less) concentrations.

A review of emissions and data on local air quality is presented in Appendix C of the Application Support Document.

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

3. Emissions

An initial screening assessment, review of tank inventory, flood risk review and environmental risk assessment has been produced to support the permit Application Support Document. This information supports the assessment presented in this report.

3.1 Air Emissions

An Air Quality Impact Assessment (AQIA) has been undertaken to assess the potential impact of emissions from the existing boilers and standby generators. The AQIA is presented in Appendix C of the Application Support Document. The assessment considered the impacts associated with the operation of the combustion plant on vegetation and ecosystems due to emissions of oxides of nitrogen (NOx) and SO_2.

The AQIA also includes consideration of:

- the activities, techniques and equipment used within the installation;
- combustion fuels used any emissions variations;
- the site layout;
- location of sensitive receptors;
- local wind direction data; and
- other sources of air emissions in the vicinity.

The Medium Combustion Plant Directive (MCPD) EU/2015/2193 (European Union, 2015)[8] regulations only apply to combustion plant with a rated thermal input equal to or greater than 1 MWth and less than 50 MWth. However, a conservative approach for the assessment was undertaken so all relevant boilers, irrespective of thermal input capacity, have been included in the assessment based on their typical operational hours. The relevant on-site standby generators, which operate primarily during routine testing and maintenance, typically operate for less than 250 hours per year. As the operation of any standby generators less than 1 MWth is likely to have a negligible impact on air quality, the AQIA only considers standby generators with a thermal input capacity equal to or greater than 1 MWth.

The emission sources to air considered in the AQIA are presented in Table 3.1.

Table 3.1: Combustion plant considered in the AQIA (thermal input capacity >1MWth)

Emission point ref	Location / description	Thermal input capacity (MWth)	Typical annual operational hours
Natural gas fuelled boilers			
A20	Fire training rig	7.728	12
A07-1	T2 Boiler House	7.143	4,200
A07-2	T2 Boiler House	7.143	4,200
A01-A	T1 Boiler House	4.643	4,200
A01-B	T1 Boiler House	4.643	4,200
A03-1	T3 Boiler House	2.857	4,200
A03-2	T3 Boiler House	2.857	4,200
A03-3	T3 Boiler House	2.857	4,200
A08-A	Cargo Centre Main Boiler House	2.857	4,200
A08-B	Cargo Centre Main Boiler House	2.857	4,200

8 Transposed into UK Law through the Environmental Permitting (England and Wales) (Amendment) Regulations 2018 (UK Government, 2018).

Emission point ref	Location / description	Thermal input capacity (MWth)	Typical annual operational hours
A24-1	MAN- TP Energy Centre	2.144	4,200
A24-2	MAN- TP Energy Centre	2.144	4,200
A24-3	MAN- TP Energy Centre	2.144	4,200
Diesel fuelled standby generators			
GEN02	ATC Tower	1.33	39
GEN04	BSUB ENG 1	1.33	193[1]
GEN05	BSUB ENG 2	1.33	164[1]
GEN06	CSUB ENG 1	1.33	159[1]
GEN07	CSUB ENG 2	1.33	180[1]
GEN08	CSUB R2/C	1.21	<250
GEN09	D SUB	1.33	<10
GEN11	G SUB	1.52	12
GEN14	PHASE 4 SUB	1.48	<10
GEN15	Pump Station B7	1.05	25
GEN17	RSUB ENG 1	1.64	12
GEN18	RSUB ENG 2	1.33	12
GEN19	Southern Front	1.21	12
GEN21	R2/1 SUB ENG 1	2.42	126[1]
GEN22	R2/1 SUB ENG 2	2.42	128[1]
GEN24	R2/3 SUB ENG 1	2.42	140[1]
GEN25	R2/3 SUB ENG 2	2.42	120[1]
GEN28	T2 B1 SUB	1.06	72
GEN29	T2 G2A SUB	4.00	12
GEN30	T3 H1 SUB	1.64	12
GEN31	Voyager 7th Floor	1.83	12
GEN32	West Apron Ph6A	1.33	14

Note 1: Anticipated to be 12 annual operational hours per year from May 2025 onwards.

The environmental effects of releases from the site at the assessed protected conservation areas has been determined by comparing predicted concentrations of released substances with the environmental quality standards (EQSs) for the protection of vegetation (critical levels).

The assessment against critical levels indicated that at some of the assessed protected conservation areas, process contributions (PCs) are elevated and exceedances of the relevant EQS are predicted to occur. However, for the majority of these ecological receptors, the exceedances are as a result of the background concentration applied in the study and not as a direct result of contributions from the assessed combustion plant. Furthermore, the assumed continuous operation of the assessed combustion plant, particularly the standby generators, means the results presented for daily mean NOx concentrations are likely to be considerably higher than would reasonably be expected.

When taking into account the conservative approach adopted throughout this assessment, the impact at the assessed protected conservation areas is considered 'not significant'.

Please refer to Appendix C of the Application Support Document for full details of the AQIA.

3.2 Surface Water and Sewer Emissions

The 'surface water' definition excludes 'foul water' or 'sewage' which originates from toilets or hand washing basins etc. in the terminals, hangars and other buildings on-site. At MAN this is conveyed separately from the

surface water system to a local Sewage Treatment Works (STW) operated by United Utilities. Some assets like the airport's FTG are also separated from the surface water system.

Manchester Airport operates a Surface Water Drainage Management Plan (SWDMP)[9]. 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 exact drainage layout of each surface water catchment at Manchester Airport varies. The area captured by the containment system is shown in Appendix H of the Application Support Document. 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. 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.

There are no point source discharges to water from the installation activities. There are eight surface water drainage catchments at Manchester Airport, which discharge via nine separate outfalls to watercourses around the site. The site holds an environmental permit for discharge of surface water to (permit reference NW/EPRCB3299EN/002), effective from February 2019.

Table 3.2 describes the current activities currently specified under the current discharge permit.

Table 3.2: Activities under Permit NW/EPRCB3299EN/002

Activity Ref.	Description of activity	Limits of specified activity	Discharge point (NGR)	Receiving water/ environment	Airport surface water catchment
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. (b) Urea shall not be utilised on the airport site for any purpose. (c) All anti-icing and de-icing products utilised on site shall not create an ammonia loading within the trade effluent.	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)		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)		Outlet C/G (SJ 81122 84506)	Cotterill Clough	Catchment C
A6	Discharge of trade effluent consisting of site drainage in storm conditions via				

[9] Manchester Airports Group (2020). Manchester Airport Surface Water Drainage Management Plan. January 2020.

Activity Ref.	Description of activity	Limits of specified activity	Discharge point (NGR)	Receiving water/ environment	Airport surface water catchment
	Outlet C/G (to Cotterill Clough)				
A7	Discharge of trade effluent consisting of site drainage in storm conditions via Outlet Cargo (to River Bollin)		Outlet Cargo (SJ 81211 85122)	Unnamed surface water drain, tributary of the River Bollin (via the Castle Mill outfall at SJ 80107 83695)	Cargo Catchment
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

3.2.1 Fugitive emissions to surface water, sewer, and groundwater

Risks to fugitive releases of fuel to the 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; and
- monitoring of stock inventories to highlight any unexplained loss of inventory.

Surface water run off from the installation areas has the potential to become contaminated from spills or leaks of fuel arising from the generators and associated fuel supply pipework and storage tanks. However, this risk is managed:

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

There is potential for spills or leaks of fuel arising from the generators and associated fuel supply pipework and storage tanks. This risk is managed through the bunding of tanks, level monitoring and alarm systems. All fuel storage areas are regularly inspected by MAG staff.

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.

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 level[10];
- 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.

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 area served by the B7 pumping station.

Fuel bowsers 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, pumps etc. 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 as required to facilitate the sweep up and disposal of any used spill kit by the operator.

3.3 Other Environmental Impacts

Other potential impacts on the environment from operation of the plant have been identified including those brought about by accidents or abnormal operation and noise & vibration. An assessment on other potential

[10] 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.

environmental impacts is provided to support permit variation application reference EPR/PP3023PR. This is presented in the Application Support Document, Chapter 6.

3.4 Abnormal Situations

The environmental risks, hazards and consequences presented by potential accidents and/or abnormal operations on the installation are identified, assessed, minimised and managed by the Environmental Management System (EMS) for the site.

MAG operate an environmental management system certified under ISO14001: 2015. The certificate number is 24937 and was issued 18 December 2023. The date of expiry is 17 February 2027.

The EMS includes extensive measures to control potential impacts to surface water and to manage drainage systems effectively (refer to Section 5.2.2 of the Application Support Document).

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.

4. Conclusions

This Habitats Assessment forms part of the Application Support Document. The on-site combustion plant includes existing natural gas fuelled boilers and gas-oil (diesel) fuelled standby generators, which provide heat and/or power across the site including the airport terminals, fire stations and associated training areas, sprinkler and hydrant systems and railway station.

There are five statutory designations present within the vicinity of the site as well as several AW and LWS, some of which are adjacent to the site. Adjacent to the west of the site is the Cotteril Clough SSSI, AW and LWS, and adjacent to the south of the site is the Oversley Ford Brickworks and Road Embankment LWS.

A review of emissions and data on local air quality is presented in Application Support Document, Appendix C Air Quality Assessment.

The environmental effects of releases from the site at the assessed protected conservation areas has been determined by comparing predicted concentrations of released substances with the environmental quality standards (EQSs) for the protection of vegetation (critical levels).

The assessment against critical levels indicated that at some of the assessed protected conservation areas, process contributions (PCs) are elevated and exceedances of the relevant EQS are predicted to occur. However, for the majority of these ecological receptors, the exceedances are as a result of the background concentration applied in the study and not as a direct result of contributions from the assessed combustion plant. Furthermore, the assumed continuous operation of the assessed combustion plant, particularly the standby generators, means the results presented for daily mean NOx concentrations are likely to be considerably higher than would reasonably be expected.

When taking into account the conservative approach adopted throughout this assessment, the impact at the assessed protected conservation areas is considered 'not significant'.

There are no direct discharges to surface waters from the permit application activities. The only risk is from diffuse emissions due to leaks or spills of fuel, maintenance oils or boiler treatment activities. Given the control measures in place to ensure containment of these materials, and the spill response procedures in place, the risk to the receiving water environment is considered to be 'not significant'.

Surface water from the Manchester Airport site discharges to the River Bollin and Cotterill Clough as well as smaller tributary brooks (Timperley Brook, Bager Brook, Double Wood Brook). There are nine separate outfalls to watercourses around the site, which are listed as discharge activities under an environmental permit (permit reference NW/EPRCB3299EN/002), with associated monitoring requirements.

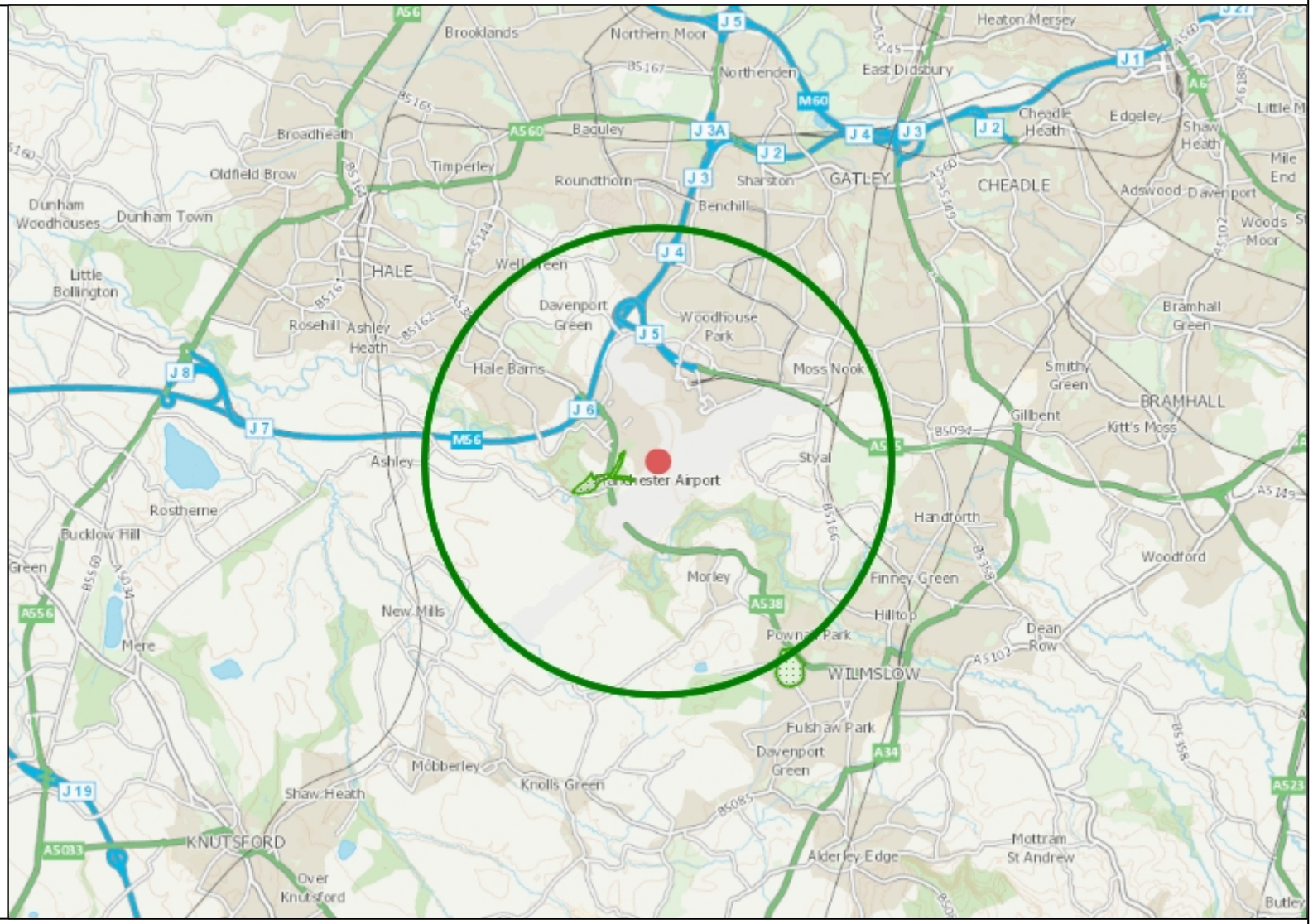
Appendix A. EA Nature & Heritage Conservation Screening Report

Screening Results for:	MCP Simple Bespoke >=5 and <10 MWth natural gas and gas oil	**Date Produced:**	26/09/2024
Reference number:	EPR/PP3023PR/P002	**NGR of search:**	SJ8143584224
Notes:		**Site centre distance (m):**	2000

Environment Agency

Legend

- Input location
- Search area
- SSSI (England)



Launch Easimap

Easimap Screening Results

Click here to download Permit Screening distances

Screening Results for:	MCP Simple Bespoke >=5 and <10 MWth natural gas and gas oil	**Date produced:**	26/09/2024
Reference number:	EPR/PP3023PR/P002	**NGR of search:**	SJ8143584224
Notes:		**Site centre distance (m):**	2000

Data	Details	Within	Search Direction	Action
Sites of Special Scientific Interest - England	Name: COTTERIL CLOUGH (SSSI)	448m	radial	MCP Simple Bespoke not allowed within or near a SSSI. Discuss Complex Bespoke permitting options with applicant.
	Name: COTTERIL CLOUGH (SSSI)	762m	radial	
	Name: LINDOW COMMON (SSSI)	3384m	radial	
Air Quality Management Areas	Name: Manchester AQMA	671m	radial	MCP Simple Bespoke allowed for emission points located within an AQMA. Local Authority consultation required for New MCP.
	Name: Trafford AQMA	1384m	radial	
EA Water Management Areas	Area name: Greater Manchester Merseyside and Cheshire	0m	radial	None
EA Public Face Areas	Area name: Greater Manchester Merseyside and Cheshire	0m	radial	None
EPR Installation Team	EPR Team: Installations Greater Manchester	0m	radial	None
	EPR Team: Installations Cheshire	649m	radial	
EPR Land and Water Team	EPR Team: Land and Water Manchester	0m	radial	None
EPR Waste Team	EPR Team: Waste SE Manchester	0m	radial	None
	EPR Team: Waste Cheshire	648m	radial	
Local Authorities	Name: Manchester	0m	radial	None
	Name: Cheshire East	648m	radial	
	Name: Trafford	1384m	radial	
Special Areas of Conservation - England	None present	1500m		
Special Areas of Conservation - Wales	None present	1500m		
Special Protection Areas - England	None present	1500m		
Special Protection Areas - Wales	None present	1500m		

Easimap Screening Results

Click here to download Permit Screening distances

Screening Results for:	MCP Simple Bespoke >=5 and <10 MWth natural gas and gas oil	**Date produced:**	26/09/2024
Reference number:	EPR/PP3023PR/P002	**NGR of search:**	SJ8143584224
Notes:		**Site centre distance (m):**	2000

Data	Details	Within	Search Direction	Action
Ramsar Sites - England	None present	1500m		
Ramsar Sites - Wales	None present	1500m		
Marine Conservation Zones	None present	1500m		
Sites of Special Scientific Interest - Wales	None present	1500m		
Counties	None present	0m		