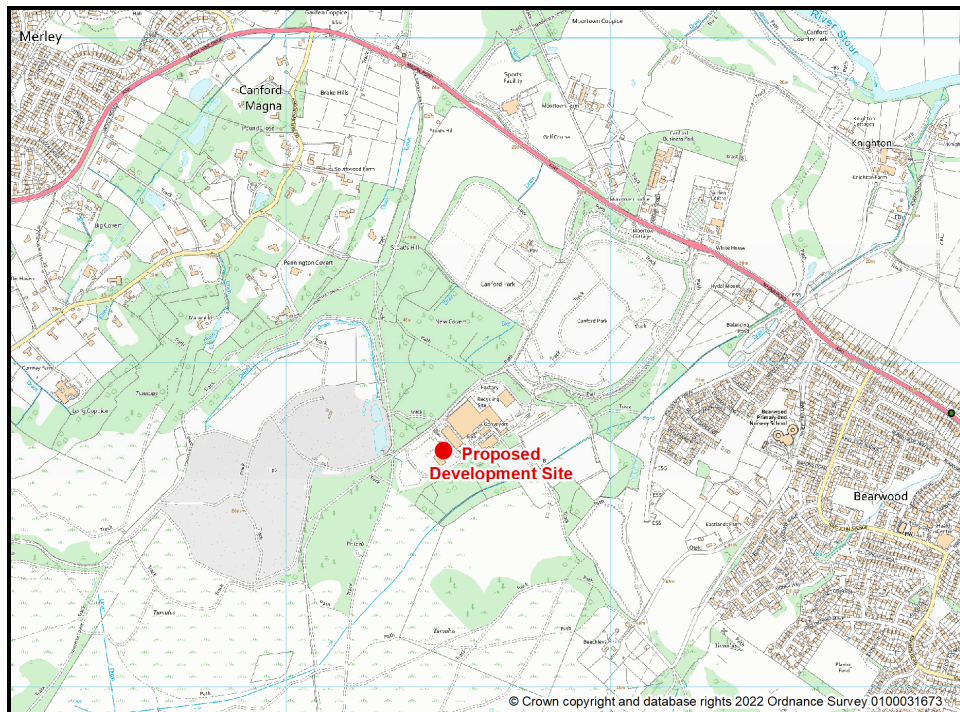


CANFORD ENERGY FROM WASTE COMBINED HEAT AND POWER FACILITY:

TRAFFIC-RELATED AIR QUALITY ASSESSMENT ON DESIGNATED CONSERVATION SITES



April 2026

Report Reference: C109-P04-R02



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Independent Air
Quality & Odour
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1 INTRODUCTION

1.1 PURPOSE OF THE ASSESSMENT

Dr Amanda Gair of Gair Consulting Ltd has been commissioned by Savills to provide a detailed traffic-related air quality assessment for a proposed Energy from Waste (EfW) Combined Heat and Power (CHP) Facility (the EfW CHP Facility) at Canford Resource Park, Arena Way, Magna Road, Wimborne, Dorset, BH21 3BW. An assessment of the impact of the Proposed Development traffic on human health was provided in the **2024 ES Addendum** in **Appendix 6.2**. At this time the potential impact on habitat sites was screened out from requiring detailed assessment as vehicle movements were below the Natural England guidance 200 heavy duty vehicles (HDVs) and 1,000 light duty vehicles (LDVs).

In October 2025, Natural England published guidance on air pollution and development for local authorities¹. This is Natural England's 'standing advice' on the impacts of air pollution on protected sites. It is general advice that Natural England, as a statutory consultee, gives to local planning authorities. It avoids the need for local planning authorities to consult Natural England on every application. This provides alternative criteria for assessing the need for carrying out a traffic-related air quality (TRAQ) assessment for habitats. Therefore, the potential impact of traffic emission on habitat sites has been revisited.

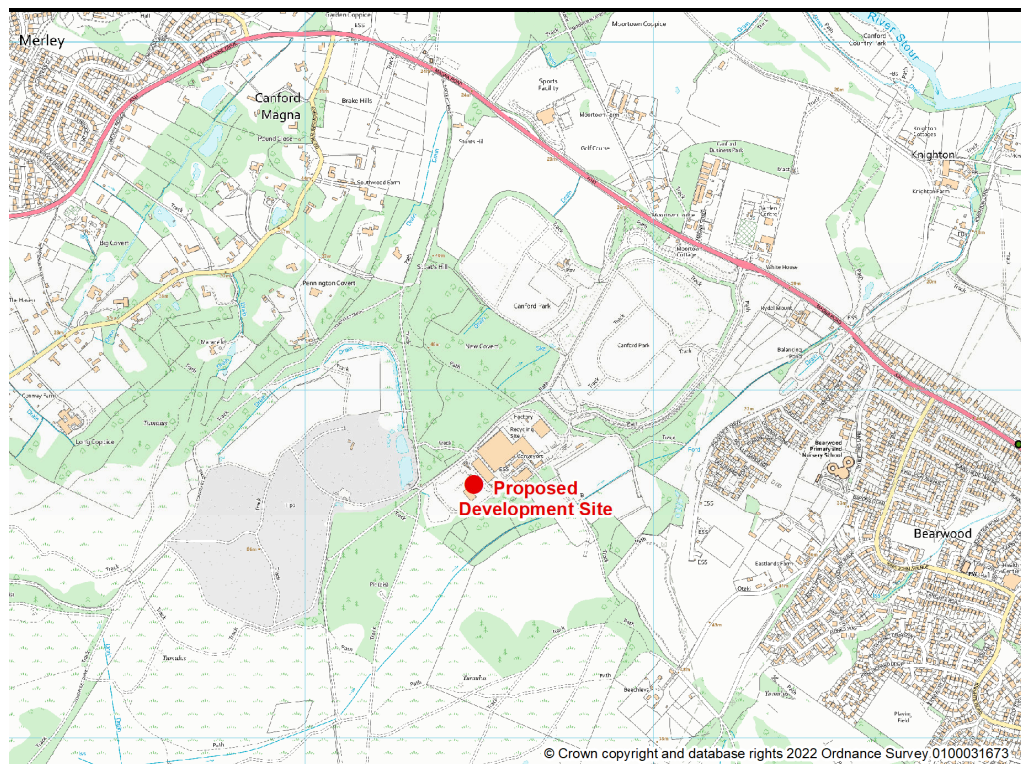
1.2 BACKGROUND TO THE IMPACT ASSESSMENT

The Proposed Development is located at the Canford Resource Park (refer *Figure 1.1*). The Proposed Development is located within the administrative area of Bournemouth, Christchurch and Poole (BCP) Council. Operational access to the Proposed Development would be along Arena Way off Magna Road (A341).

Vehicle movements associated with the Proposed Development have been reassessed by Paul Basham Associates (PBA) and are provided in **Appendix 6.2** to the **2026 ES Update**. This update provides traffic movements as the Annual Average Daily Traffic (AADT, the daily average across a year) rather than the weekday movements which don't take account of the lower activity at the weekends. The impact of these traffic movements on habitat sites within 200 m of roads used by the Proposed Development traffic and on the Dorset Heaths European habitat site adjacent to the Site is provided.

1 <https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities>

FIGURE 1.1 LOCATION OF THE PROPOSED DEVELOPMENT



1.3 QUALIFICATIONS OF THE AUTHOR

Dr Amanda Gair of Gair Consulting Limited has over 30 years' experience in environmental consultancy specialising in air quality, odour and human health risk assessments. Qualifications and professional memberships include the following:

- Bachelor of Science (BSc) in Environmental Chemistry (Joint Honours);
- Doctor of Philosophy (PhD) in Atmospheric Chemistry;
- Member of the Institute of Air Quality Management (MIAQM);
- Member of the Institution of Environmental Sciences (MIEnvSc); and
- Chartered Environmentalist (CEnv).

Dr Gair provides technical support to the permitting of major projects via the completion of detailed air quality assessments and health risk assessments for planning applications, environmental permitting and general regulatory support. Dr Gair has extensive experience in power (including energy from waste, biomass and bioethanol facilities), waste management, ceramics and cement works, construction, chemical, wastewater and manufacturing industries.

The remainder of this report is structured as follows.

- *Section 2* - Methodology and Assessment Criteria - details the approach followed and summarises the relevant assessment criteria.
- *Section 3* - Operational Impacts on Habitats - provides an assessment of the potential air quality impact arising from the additional traffic movements generated by the Proposed Development.
- *Section 4* summarises and concludes the assessment and provides recommendations for further work or consultation, where necessary.

2 METHODOLOGY AND ASSESSMENT CRITERIA

2.1 POLLUTANTS CONSIDERED

The primary pollutants arising from traffic emissions and considered in the assessment for habitat sites include:

- the oxides of nitrogen (NO_x); and
- ammonia (NH₃).

2.2 NATURAL ENGLAND'S STANDING ADVICE (OCTOBER 2025)

Natural England's standing advice was issued without consultation and there has been sufficient feedback from stakeholders on the requirements of the guidance that in March 2026 Natural England requested further feedback on the guidance with a view to updating the guidance in May 2026. From an air quality practitioner perspective, the guidance lacks clarity and an understanding of the process required to assess air quality impacts on habitat sites, particular for traffic emissions. For traffic-related air quality impacts, the guidance states that the assessor should carry out the following steps.

- Step 1 requires the assessor to determine if emissions will reach a protected site and for traffic this is defined as any part of the road network within 200 m of the habitat that the 'proposal could create additional traffic'. Consequently, if there is one extra vehicle on any identified roads then the assessor should proceed to Step 2.
- For roads/habitats identified in Step 1, Step 2 requires the assessor to check emissions against relevant critical levels and critical loads to determine if the proposal's contribution is 1% or more of any critical level/load. Where this is the case, the assessor should proceed to Step 5 which is a detailed air quality assessment and appropriate assessment. However, to determine if the proposal contributes 1% or more requires a detailed assessment. In other words, a detailed assessment needs to be undertaken for all identified habitats/roads to determine if a detailed assessment is required. Previously, the Natural England screening criteria of 200 HDV or 1,000 LDV would be used to screen projects from requiring detailed assessment either alone or in combination.
- If in Step 2 the proposal's contribution is less than 1% of all critical levels and critical loads, then the assessor should proceed to Step 4 (step 3 relates to agricultural developments only).
- Step 4 requires the assessor to consider the proposal in combination with other projects. It requires the assessor to firstly decide if an in combination assessment is required and where this is the case to carry out an assessment of combined emissions. It is suggested that applicants

might use the Joint Nature Conservation Committee (JNCC) 'decision making thresholds'² as a reason for not completing an in combination assessment. For road emissions, a decision-making threshold (DMT) of 0.15% of existing AADT is provided. In other words, if the development traffic flows exceed 0.15% of the existing traffic flow, a detailed in combination assessment is required. Effectively, the 0.15% criterion is a threshold that indicates the proposal's contribution would result in an imperceptible change (i.e. no requirement to proceed to an in combination assessment).

Therefore, until more clarity on the new guidance can be provided, air quality practitioners have been using this very stringent DMT to screen out the requirement for a detailed air quality assessment of traffic impacts on designated habitat sites. This approach is used to screen out the requirement for a detailed assessment for traffic impacts at habitat sites close to the local road network and used by the Proposed Development traffic.

There effectively is no existing traffic flow around the EFW CHP Facility Site and vehicles accessing the Canford Resource Park do not currently travel in close proximity to the Dorset Heathlands SAC that lies to the east and south of the Site. Therefore, the impact of traffic cannot be screened out using the DMT and an assessment of traffic-related air quality impacts on vehicles accessing the EFW CHP Facility Site is required.

2.3 TRAFFIC FLOW DATA

Details on construction traffic accessing the Proposed Development Site are provide in the **2024 ES Addendum in Appendix 6.2**. This concluded that over the 36-month construction period, HDVs would vary between 0 and 92 HDV movements (average of 45 movements) and LDVs between 4 and 227 movements (average of 143 movements). Therefore, construction vehicles vary substantially depending on the phase of construction. The majority of construction vehicles would not access the actual EFW CHP Facility Site but would use the Temporary Construction Compound (TCC1) at Canford Park.

Revised operational traffic flow data are provided by PBA in **Appendix 6.2** to the **2026 ES Update**. These provide operational traffic movements as the AADT for two scenarios. Scenario 1 assumes that all vehicles associated with the Proposed Development are new vehicles on the local road network and do not take account of existing vehicles that are already accessing the Canford Resource Park. Scenario 2 takes account of these existing vehicles and identifies the change in vehicle movements.

2 Guidance on Decision-making Thresholds for Air Pollution, Main Report, JNCC Report No 696 (December 2021)

A summary of operational vehicle movements for Scenario 1 and Scenario 2 is provided in *Table 2.1*. In total, Scenario 1 vehicle movements will comprise 130 HDVs and 85 LDVs and Scenario 2 will comprise 70 HDVs and 85 LDVs. Operational HDV movements are higher compared to construction vehicle movements, but LDV movements are lower. However, LDV movements are likely to include local contractors and construction workers and will already be on the local road network. Furthermore, the construction activities will be temporary. Therefore, the assessment has focussed on long-term operational impacts only.

TABLE 2.1 SUMMARY OF TWO-WAY OPERATIONAL DEVELOPMENT TRAFFIC FLOWS AS THE AADT

Vehicle Type	Movement Type	Scenario 1 (AADT)	Scenario 2 (AADT)
HDVs	Delivery of waste	112	52
	Delivery of consumable/ collection of residues	18	18
LDVs	Parts/spares	16	16
Cars	Staff	69	69
Total		215	155

2.4 SCREENING OF IMPACTS

2.4.1 Identified Habitats and Road Links

For Step 1, there are a number of habitat sites that are located within 200 m of roads used by the Proposed Development traffic. These include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites and Sites of Special Scientific Interest (SSSI). Identified habitat sites on the local road network include the following:

- Dorset Heaths SAC;
- Dorset Heathlands SPA/Ramsar; and
- Canford Heath SSSI.

It should be noted that these habitats are all co-located and referred to here as the Dorset Heaths European habitat site. Local roads identified include Gravel Hill on the A349 to the south of Magna Road (A341) and the A31 to the east of the A349 roundabout.

Bulk transfer of waste may occur from further afield and are assumed to arise from the east of the BCP administrative area. Therefore, vehicles travelling to and from the east along the A31 may travel as far as Hampshire. Therefore, the impact on habitats further afield have also been considered. These include:

- Moors River System SSSI;
- River Avon SAC/SSSI and Avon Valley SPA/Ramsar site; and
- The New Forest SAC/SPA/SSSI and Ramsar site.

It is assumed that vehicles travelling to and from the east along the A31 will continue travelling through The New Forest.

2.4.2 Proposed Development Traffic Movements

On the basis that traffic is distributed on the local road network as previously assumed, the Scenario 2 development traffic movements are as follows:

- 21 vehicle movements on the A349 (Gravel Hill) to the south of the A341; and
- 42 vehicles movements on the A31 to the east of Merley.

The Department for Transport (DfT) provides traffic count data for the major road network. Currently data are available up to and including 2024. A summary of the 2024 vehicle movements for the road links adjacent to the identified habitat sites is provided in *Table 2.2*.

TABLE 2.2 DEPARTMENT FOR TRANSPORT TRAFFIC COUNT DATA AS THE AADT

Road	Road Link	Habitat	2024 AADT
A349 south	North of Duneys Road	Dorset Heaths/Heathlands	28,945
A349 south	South of Duneys Road	Dorset Heaths/Heathlands	20,305
A31 east	A31 West of Ringwood Road Roundabout	Dorset Heaths/Heathlands	30,329
A31 east	A31 Northeast of Ringwood Road Roundabout	Dorset Heaths/Heathlands	52,484
A31 east	A31 Northeast of Ringwood Road Roundabout	Moors River System	52,484
A31 east	A31 north of the A338	River Avon/Avon Valley	92,129
A31 east	A31 between Ringwood and M27	The New Forest	68,449

A comparison of existing traffic movements with the Proposed Development traffic is provided in *Table 2.3*. Traffic flows are anticipated to increase in time and the future baseline traffic will be higher. Therefore, the comparison is representative of a worst-case.

TABLE 2.3 COMPARISON OF DEVELOPMENT TRAFFIC WITH THE DEPARTMENT FOR TRANSPORT TRAFFIC COUNT DATA

Road	Habitat	Existing (AADT)	0.15% of Existing	Development Traffic (AADT)
A349 south	Dorset Heaths/Heathlands	28,945	43	21
A349 south	Dorset Heaths/Heathlands	20,305	30	21
A31 east	Dorset Heaths/Heathlands	30,329	45	42
A31 east	Dorset Heaths/Heathlands	52,484	79	42
A31 east	Moors River System	52,484	79	42
A31 east	River Avon/Avon Valley	92,129	138	42
A31 east	The New Forest	68,449	103	42

The Proposed Development traffic movements are all less than the DMT of 0.15% compared to the existing traffic and would be assessed as imperceptible either alone or in combination. Therefore, on this basis the impact of the Proposed Development traffic on habitat receptors along the local road network can be screened out.

During operation, on-site traffic will pass close to areas of the Dorset Heaths European site, parts of which are less than 15 m from the internal roads. At present there is little or no existing traffic using these roads. Therefore, it cannot be demonstrated that the Proposed Development traffic would not have an imperceptible impact on these habitats. Therefore, a detailed assessment should be undertaken for vehicles accessing the EfW CHP Facility Site. Furthermore, at this location, all of the vehicles will be new vehicles and the assessment should be based on the Scenario 1 traffic movements.

2.5 DISPERSION MODEL INPUT DATA

2.5.1 Dispersion Model

Detailed air quality modelling has been undertaken using the Atmospheric Dispersion Modelling Systems Roads (ADMS Roads, Version 5.1) dispersion model and a suitable meteorological data set (Bournemouth Airport 2019). Meteorological data for 2019 has been used since this was used for the assessment on human health and the model was verified using monitoring data for 2019. This derived a model verification factor of 1.83 which has been applied to predicted NO_x concentrations. This is not applied to NH₃ since NH₃ emissions are generated from a different source and are already calibrated with measured concentrations.

2.5.2 Emissions of the Oxides of Nitrogen and Ammonia

Emissions of NO_x for each road link were calculated using Defra’s 2024 Emission Factor Toolkit (EFT V13.1). Ammonia emissions were predicted

using the Calculator for Road Emissions of Ammonia (CREAM V2A)³. A road speed of 16 kilometres per hour has been used and for staff vehicles, it is assumed that 50% of vehicles will be cold starts when calculating NH₃ emissions. Emissions have been predicted for 2027, the original proposed operational start date for the Proposed Development. This is representative of a worst-case since, with a construction period of 36 months, operation is unlikely to commence until 2030, should the development proceed. Future emission concentrations will be lower due to improvements in the vehicle fleet.

Predicted concentrations of NO_x and NH₃ are compared to relevant critical levels. These concentrations are also used to predict nutrient nitrogen deposition rates and acidification for comparison with habitat specific critical loads. The deposition methodology used is the same as used for emissions from the EfW CHP Facility.

2.5.3 Routing of Traffic within the Site

Except staff vehicles, all vehicles are assumed to enter the Site at the most northern point. These head southeast and then turn southwest down the ramp. Waste vehicles (112 HDV movements) enter and leave the Tipping Hall which is at the most southern point of the building. Vehicles delivering consumables and collection residues (22 HDVs) peel off the site access road just prior to the Tipping Hall and turn north, re-joining the exit road further to the northeast having delivered and collected, as necessary.

Parts and spares LDVs are assumed to travel the same route as the delivery of consumable/ collection of residues HDVs. This represents a worst-case since they may also use the route used by staff which is further from the Dorset Heaths European site. Staff vehicles enter the Site on the northwest boundary to access parking. It is assumed as worst-case that all staff vehicles use the most southern car park, nearest to the Dorset Heaths habitat site.

2.5.4 Sensitive Receptors

The impact of vehicle emissions on the Dorset Heaths European site has been predicted at the boundary of the site and over a grid of 10 m by 10 m to assess the extent of any predicted impact.

2.6 BASELINE CONDITIONS

Critical levels and critical loads of relevance to the Dorset Heaths European site are also provided in **Appendix 6.1** of the **2026 ES Update**. A summary of these for the Dorset Heaths SAC at this location are presented in *Table 2.4*.

³ Development of CREAM Emissions Model Version 2, Air Quality Consultants (February 2025)

TABLE 2.4 CRITICAL LEVELS AND CRITICAL LOADS ADOPTED FOR THE DORSET HEATHS EUROPEAN HABITAT SITE

Pollutant	Description	Units	Critical Level/Load
NO _x	Critical level	µg m ⁻³	30
NH ₃	Critical level	µg m ⁻³	1 - 3
Nutrient nitrogen	Bogs/fens	kg N ha ⁻¹ a ⁻¹	5 - 10
	Woodland	kg N ha ⁻¹ a ⁻¹	10 - 15
Acidification	Bogs/fens	keq ha ⁻¹ a ⁻¹	0.553
	Dwarf shrub heath	keq ha ⁻¹ a ⁻¹	0.699
	Acid grassland	keq ha ⁻¹ a ⁻¹	0.556
	Coniferous woodland	keq ha ⁻¹ a ⁻¹	0.87

Where critical levels or critical loads are presented as a range, the most stringent value is adopted for the assessment.

Background concentrations and deposition rates for the Dorset Heaths European site are provided in **Appendix 6.1** of the **2026 ES Update**. A summary of the background concentrations and deposition rates for the Dorset Heaths SAC at this location are presented in *Table 2.5*.

TABLE 2.5 ANNUAL MEAN BACKGROUND CONCENTRATIONS AND DEPOSITION RATES FOR THE DORSET HEATHS EUROPEAN HABITAT SITE

Pollutant	Description	Units	Annual Mean
NO _x	Airborne concentration	µg m ⁻³	12.91
NH ₃	Airborne concentration	µg m ⁻³	1.15
Nutrient nitrogen	Heathland habitats	kg N ha ⁻¹ a ⁻¹	12.96
	Woodland habitats	kg N ha ⁻¹ a ⁻¹	23.43
Acidification	Heathland habitats	keq ha ⁻¹ a ⁻¹	1.01
	Woodland habitats	keq ha ⁻¹ a ⁻¹	1.79

Except for NO_x, the background concentrations and deposition rates exceed the relevant critical levels and critical loads.

2.7 SIGNIFICANCE CRITERIA

Impacts on habitat sites are assessed as not significant where predicted concentrations or deposition rates are 1% or less of the relevant critical level or critical load. Where the predicted concentration or deposition rate exceeds 1%, the impact is potentially significant, and it is necessary to consider background concentrations and deposition rates. Where the total (process contribution plus background) concentrations or deposition rates are less than 70% of the relevant critical level or critical load then it is considered unlikely that these would be exceeded.

3.1 ANNUAL MEAN NO_x AND NH₃

A summary of predicted annual mean NO_x and NH₃ concentrations arising from vehicle movements within the Site are presented in *Table 3.1*. These are the maximum predicted concentrations within the Dorset Heaths European habitat site. This provides the predicted traffic contribution (impact of the additional traffic) and the total concentration (predicted traffic contribution plus the background, refer *Table 2.5*). These are also presented as a percentage of the critical level (refer *Table 2.4*).

TABLE 3.1 PREDICTED ANNUAL MEAN NO_x AND NH₃ DUE TO THE PROPOSED DEVELOPMENT TRAFFIC WITHIN THE SITE

Pollutant	Predicted Traffic Contribution		Total Concentration	
	($\mu\text{g m}^{-3}$)	(%age Critical Level)	($\mu\text{g m}^{-3}$)	(%age Critical Level)
NO _x	0.42	1.4%	13.33	44.4%
NH ₃	0.013	1.3%	1.16	116%

Predicted concentrations of NO_x and NH₃ exceed 1% of their respective critical level. However, total NO_x concentrations are well below 70% of the critical level and it is unlikely that this would be exceeded. Background concentrations of NH₃ already exceed the most stringent critical level of 1 $\mu\text{g m}^{-3}$. Therefore, the emission of NH₃ from road traffic is potentially significant.

3.2 NUTRIENT NITROGEN DEPOSITION

A summary of predicted annual mean nutrient nitrogen deposition rates arising from vehicle movements within the Site are presented in *Table 3.2*. These are the maximum predicted deposition fluxes within the Dorset Heaths European habitat site.

TABLE 3.2 PREDICTED NITROGEN DEPOSITION DUE TO THE PROPOSED DEVELOPMENT TRAFFIC WITHIN THE SITE

Habitat	Predicted Traffic Contribution		Total Deposition	
	($\text{kg N ha}^{-1} \text{ a}^{-1}$)	(%age Critical Load)	($\text{kg N ha}^{-1} \text{ a}^{-1}$)	(%age Critical Load)
Bogs/fens	0.13	2.6%	13.09	262%
Woodland	0.22	2.2%	23.65	237%

The predicted deposition rate for heathland habitats is 2.6% of the critical load and 2.2% of the critical load for woodland habitats. Therefore, predicted

deposition rates are potentially significant as the background deposition rates exceed the critical load for both habitat types.

3.3 ACIDIFICATION

A summary of predicted annual mean acid deposition rates arising from vehicle movements within the Site are presented in *Table 3.3*. These are the maximum predicted deposition fluxes within the Dorset Heaths European habitat site.

TABLE 3.3 PREDICTED ACIDIFICATION DUE TO THE PROPOSED DEVELOPMENT TRAFFIC WITHIN THE SITE

Habitat	Predicted Traffic Contribution		Total Deposition	
	(keq ha ⁻¹ a ⁻¹)	(%age Critical Load)	(keq ha ⁻¹ a ⁻¹)	(%age Critical Load)
Bogs/fens	0.0092	1.7%	1.02	184%
Dwarf shrub heath	0.0092	1.3%	1.02	146%
Acid grassland	0.0092	1.7%	1.02	183%
Woodland	0.016	1.8%	1.81	208%

Predicted deposition rates for heathland habitats are 1.3% to 1.7% of the various critical loads and 1.8% of the critical load for woodland habitats. Therefore, predicted deposition rates are potentially significant as the background deposition rates exceed the critical load for all habitat types.

3.4 CUMULATIVE IMPACTS

Cumulative impacts could arise from the operation of the Emergency Diesel Generator (EDG) and/or the EfW CHP Facility. However, specified mitigation would prevent testing of the EDG when the wind is blowing towards the Dorset Heaths European site. Therefore, combined impacts could only arise when the EDG is operating in an emergency, complete loss of power, which is predicted to occur very infrequently for short durations. At MVV's Devonport site there have been no 'black site' incidents within the five years up to 2024. Furthermore, the impact of the EDG operating for an occasional emergency scenario would be negligible when averaged over the period of one year.

Due to the height of the chimney, maximum predicted concentrations arising from the EfW CHP Facility occur at some distance from the source. Close to the site predicted concentrations from the EfW CHP Facility are less than 0.01% of the contribution arising from traffic emissions.

Therefore, it is concluded that there would be no in combination impacts from traffic, the EDG and/or the EfW CHP Facility emissions.

Contour plots showing the 1% contours (in red) for airborne NO_x, airborne NH₃, nutrient nitrogen and acidification for woodland habitats are presented in *Figure 3.1* to *Figure 3.4*, respectively. For all parameters, the area exceeding 1% of the relevant critical levels and critical loads at the Dorset Heaths SAC is presented in *Table 3.4*.

FIGURE 3.1 CONTOUR OF 1% EXCEEDANCE OF THE CRITICAL LEVEL FOR NO_x (RED CONTOUR REPRESENTS 0.30 µg m⁻³)

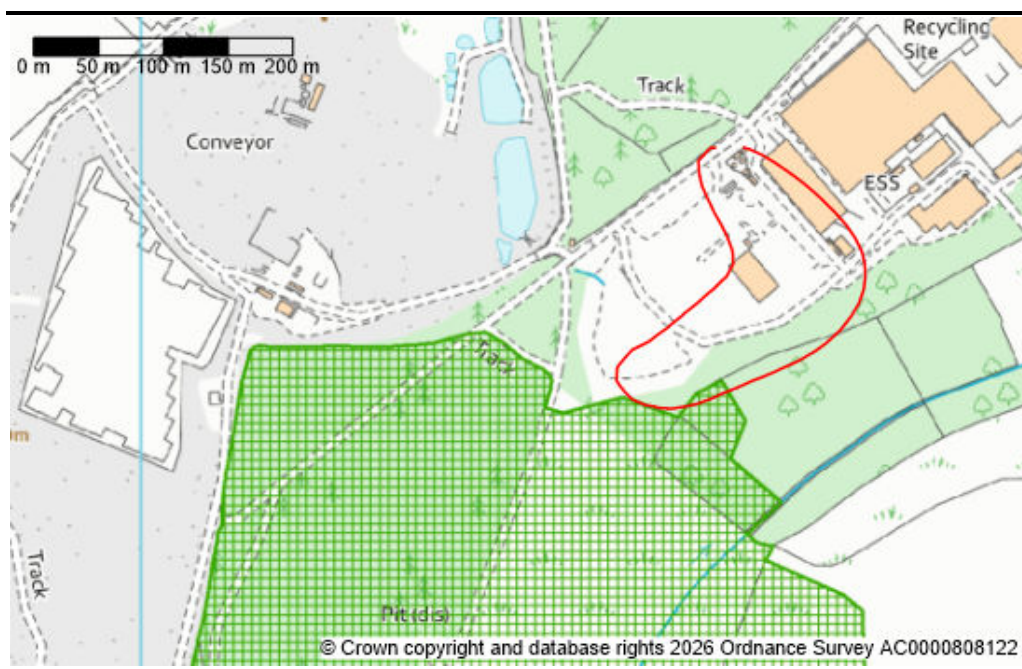


FIGURE 3.2 CONTOUR OF 1% EXCEEDANCE OF THE CRITICAL LEVEL FOR NH₃ (RED CONTOUR REPRESENTS 0.01 µg m⁻³)

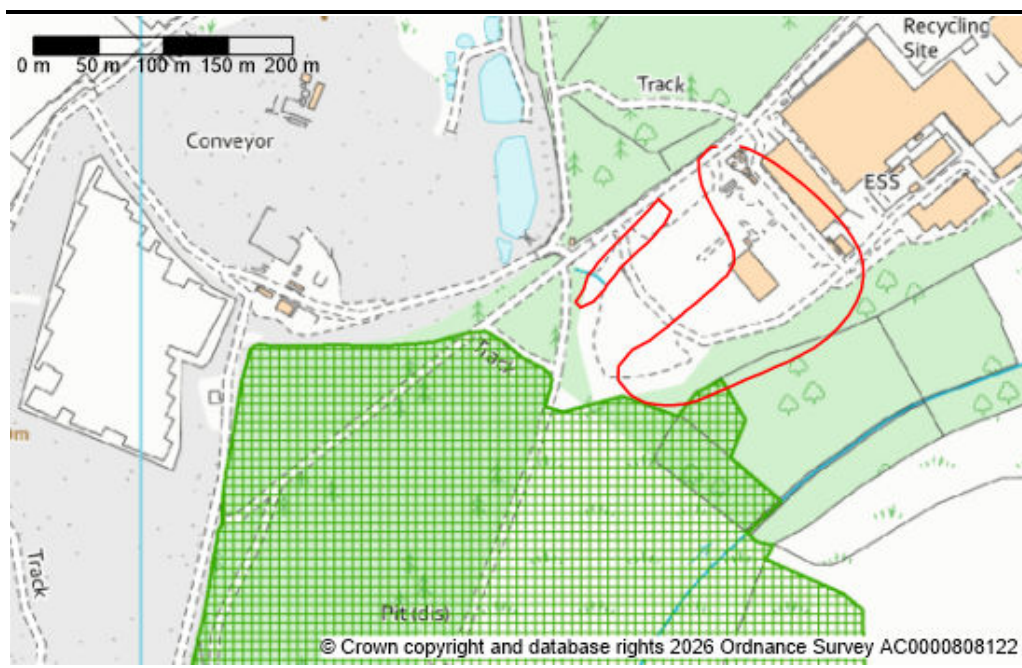


FIGURE 3.3 CONTOUR OF 1% EXCEEDANCE OF THE ACIDIFICATION CRITICAL LOAD FOR WOODLAND HABITATS (RED CONTOUR REPRESENTS $0.0087 \text{ keq ha}^{-1} \text{ a}^{-1}$)

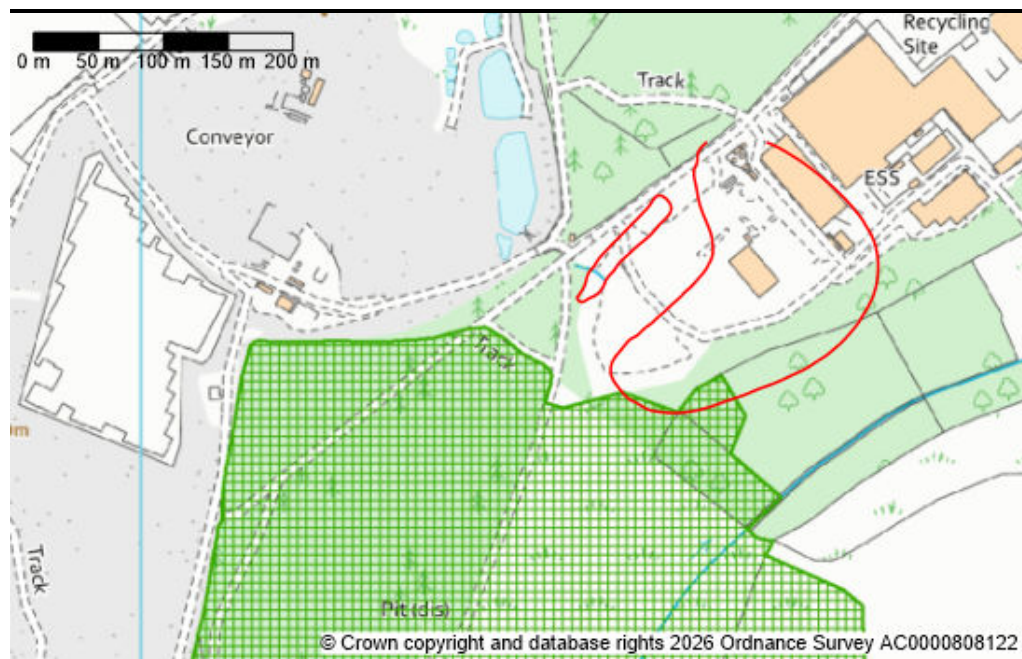
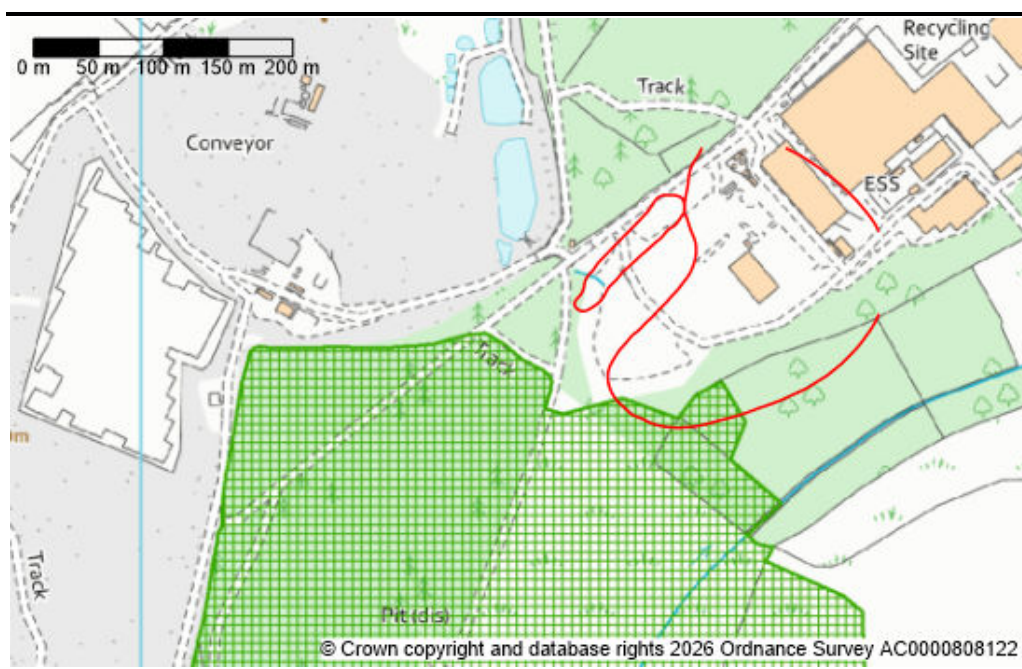


FIGURE 3.4 CONTOUR OF 1% EXCEEDANCE OF THE NUTRIENT NITROGEN CRITICAL LOAD FOR WOODLAND HABITATS (RED CONTOUR REPRESENTS $0.1 \text{ kg N ha}^{-1} \text{ a}^{-1}$)



The area exceeding 1% of the relevant critical levels or critical loads is highest for nutrient nitrogen deposition for bogs/fens at 0.19 ha. However, the habitat in that part of the SAC/SPA/SSSI designation is entirely woodland. For woodland habitats, the area exceeding 1% of the relevant critical levels or critical loads is 0.14 ha. For heathland and woodland habitats, the maximum area of potential impact (greater than 1% of the critical levels or critical loads)

represents 0.003% and 0.002% of the total area of the Dorset Heaths SAC, respectively.

TABLE 3.4 AREA OF DORSET HEATHS SAC WHERE ON-SITE TRAFFIC IMPACTS EXCEED 1% OF THE CRITICAL LEVEL OR CRITICAL LOAD

Impact/Feature	Area (m ²)	Area (ha)	Percentage of Total SAC (a)
Annual airborne NO _x	244	0.02	<0.001%
Annual airborne NH ₃	202	0.02	<0.001%
Nutrient nitrogen - bogs/fens	1932	0.19	0.003%
Nutrient nitrogen - woodland	1379	0.14	0.002%
Acidification - bogs/fens	555	0.06	0.001%
Acidification - acid grassland	517	0.05	0.001%
Acidification - dwarf shrub heath	182	0.02	<0.001%
Acidification - woodland	760	0.08	0.001%
(a) Assuming the Dorset Heaths SAC covers an area of 5,719.54 ha			

3.6 EFFECT ON DESIGNATED HABITAT SITES

As the impact exceeds 1% of the critical levels for NO_x, NH₃, nutrient nitrogen deposition and acidification, the effect on Dorset Heaths SAC/SSSI and Dorset Heathlands SPA is provided by EDP (the project ecologists for the project). Their assessment of the effect on the integrity of the European site is presented in the **2026 ES Update**.

EDP advises that the area within the SAC/SPA/SSSI boundaries potentially affected by these traffic emissions is entirely comprised of mature woodland habitat with no known plans to restore heathland or other qualifying habitats in this particular area.

The modelled increases in pollutants from operational traffic would not result in a detrimental impact on the SAC designation because of the absence of grassland, bog or heathland qualifying habitats at this part of the SAC, with no qualifying woodland habitat present at Canford Heath.

Similarly, the SSSI would not be adversely affected as it is designated for the heath and bog habitats and the plants, reptiles, birds and invertebrates those habitats support.

The SPA designation would not be impacted because such changes in air quality would not significantly alter the structure, diversity or function of the existing mature woodland habitat, which could therefore continue to support any of the designated bird species of the SPA which may utilise it.

4.1 SUMMARY

A detailed traffic-related air quality assessment for the proposed the EfW CHP Facility at Canford Resource Park has been provided. This has considered impacts on habitat sites. The impact of traffic on human health was provided in **Appendix 6.2** of the **2024 ES Addendum**. At this time the potential impact on habitat sites was screened out from requiring detailed assessment as vehicle movements were below the Natural England guidance 200 heavy duty vehicles (HDVs) and 1,000 light duty vehicles (LDVs).

In October 2025, Natural England published guidance on air pollution and development for local authorities⁴. This is Natural England's 'standing advice' on the impacts of air pollution on protected sites. It is general advice that Natural England, as a statutory consultee, gives to local planning authorities. This guidance has been used to screen out the impact of traffic movements on the local road network. However, it was not possible to screen out the impact of traffic movements within the EfW CHP Facility Site where internal roads lie within 15 m of the Dorset Heaths European site. Therefore, a detailed assessment of the impact of traffic on this habitat is provided.

For habitat sites, the primary pollutants arising from road traffic are NO_x and NH₃. Therefore, the assessment has considered airborne concentrations of these pollutants and used these to predict nutrient nitrogen deposition and acidification. Predicted concentrations and deposition rates are compared to relevant critical levels and critical loads.

Predicted concentrations of NO_x and NH₃ exceed 1% of the most stringent critical levels and would be assessed as potentially significant. However, background concentrations of NO_x are below the critical level and the total concentration is well below 70% of the critical level and it is unlikely that this would be exceeded. Predicted nutrient nitrogen deposition and acidification also exceed 1% of the relevant critical loads for both heathland and grassland habitats. For NH₃, nutrient nitrogen and acidification, background levels already exceed the relevant critical levels and critical loads.

The area of exceedance of 1% of the critical levels/loads are relatively small and at most are 0.19 ha for nutrient nitrogen deposition to heathland habitats. This represents 0.003% of the total area of the Dorset Heaths SAC.

4 <https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities>

EDP (the project ecologists) have considered the effect of these emissions on the integrity of the European site. As the area affected comprises entirely of woodland, there would be no detrimental impact on the SAC given the absence of qualifying features (bog or heathland) or presence of qualifying woodland. Similarly, the SSSI would not be adversely affected as it is designated for the heath and bog habitats and the plants, reptiles, birds and invertebrates those habitats support. The SPA designation would not be impacted because such changes in air quality would not significantly alter the structure, diversity or function of the existing mature woodland habitat, which could therefore continue to support any of the designated bird species of the SPA which may utilise it.

4.2

CONCLUSIONS

It is concluded that the Proposed Development traffic will not have a significant impact on designated nature conservation sites.



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