

# A30 Chiverton to Carland Cross Environmental Statement

**Volume 6 Document Ref 6.4 ES Appendix 5.3  
Air quality- receptors**

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**C01 | A3**

**22/08/18**

Planning Act 2008  
Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009 (as amended)  
APFP Regulation 5(2)(a)



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## 5 Appendix 5.3

### 5.3 Receptors

#### Human receptors

5.3.1 A total of 584 receptors were included in the assessment. They were selected using professional judgement and the following criteria:

- Proximity to the affected roads;
- Representative of the maximum effects of the scheme in that region; and
- At risk of exceeding the annual mean NO<sub>2</sub> Air Quality Objective (AQO).

5.3.2 Receptors included dwellings, hospitals and educational establishments.

5.3.3 Receptor locations are presented in Volume 6 Document Ref 6.3 ES Figure 5-2. The human receptors have been modelled at a height of 1.5m, to be representative of ground level receptors.

#### Ecological receptors

5.3.4 There are seven designated sites within 200m of the ARN identified along the A30, B3285 and A390. Critical loads<sup>1</sup> for these sites are presented in Table 5-1.

5.3.5 Ecological receptors have been identified within 200m of the ARN, and the details are given in Table 5-2. These have been included in the ecological assessment, and have been modelled at a height of 0m, to be representative of ground level vegetation. Ecological receptor locations are presented in Volume 6 Document Ref 6.3 ES Figure 5-2.

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<sup>1</sup> Critical loads have been taken from the Air Pollution Information Site (<http://www.apis.ac.uk>). Critical loads for Mid Cornwall were not available at the time of assessment as the SSSI designation was only made in 2017, therefore the same critical loads as Breney Common and Goss and Tregoss Moor SAC have been used as they are in the same location.

**Table 5-1 Ecological receptors for nitrogen deposition critical loads**

Designated site	Designation	Habitat	Total background nitrogen deposition (kg N/ha/yr)			Empirical critical load (kg N/ha/yr)
			Max	Min	Average	
Penhale Dunes	SAC & SSSI	Calcareous grassland	13.6	9.7	9.8	15 - 25
Carrick Heaths	SSSI	Fen, marsh and swamp	19.0	13.6	16.7	10 - 15
Fal & Helford	SAC	Estuaries	18.6	9.4	11.5	20 - 30
Newlyn Downs	SAC	Dwarf shrub heath	17.4	15.5	17.0	10 - 20
Breney Common and Goss and Tregoss Moor	SAC	Transition mires and quaking bog	21.3	16.1	17.4	10 - 15
River Camel	SAC	Old sessile oak woods	30.5	24.4	28.7	10 - 15
Mid Cornwall Moor	SSSI	Transition mires and quaking bog	21.3	16.1	17.4	10 - 15

**Table 5-2 Receptor locations for ecological assessment**

ID	Receptor ID	Site Designation	X	Y	Distance from nearest road (m)
Eco50	Breney Common and Goss and Tregoss Moor	SAC	193029	59603	0
Eco51	Breney Common and Goss and Tregoss Moor	SAC	193036	59596	10
Eco52	Breney Common and Goss and Tregoss Moor	SAC	193061	59565	50
Eco53	Breney Common and Goss and Tregoss Moor	SAC	193094	59527	100
Eco54	Breney Common and Goss and Tregoss Moor	SAC	193015	59615	0
Eco55	Breney Common and Goss and Tregoss Moor	SAC	193008	59622	10
Eco56	Breney Common and Goss and Tregoss Moor	SAC	192982	59652	50
Eco57	Breney Common and Goss and Tregoss Moor	SAC	192949	59690	100
Eco58	Breney Common and Goss and Tregoss Moor	SAC	195634	61558	0
Eco59	Breney Common and Goss and Tregoss Moor	SAC	195635	61568	10
Eco60	Breney Common and Goss and Tregoss Moor	SAC	195638	61608	50
Eco61	Breney Common and Goss and Tregoss Moor	SAC	195642	61658	100
Eco62	Breney Common and Goss and Tregoss Moor	SAC	195637	61538	0
Eco63	Breney Common and Goss and Tregoss Moor	SAC	195637	61528	10
Eco64	Breney Common and Goss and Tregoss Moor	SAC	195634	61488	50
Eco65	Breney Common and Goss and Tregoss Moor	SAC	195630	61438	100
Eco66	Breney Common and Goss and Tregoss Moor	SAC	195623	61339	200
Eco67	Breney Common and Goss and Tregoss Moor	SAC	193158	59450	200
Eco35	Carrick Heaths	SSSI	178856	49874	120
Eco44	Carrick Heaths	SSSI	178828	49916	150
Eco9	Fal & Helford	SAC	182887	44307	10
Eco10	Fal & Helford	SAC	182927	44308	50
Eco11	Fal & Helford	SAC	182977	44309	100
Eco12	Fal & Helford	SAC	183027	44310	150
Eco13	Fal & Helford	SAC	186078	45775	10
Eco14	Fal & Helford	SAC	186113	45754	50
Eco15	Fal & Helford	SAC	186156	45729	100

ID	Receptor ID	Site Designation	X	Y	Distance from nearest road (m)
Eco16	Fal & Helford	SAC	186199	45703	150
Eco30	Fal & Helford	SAC	182918	44304	40
Eco31	Fal & Helford	SAC	186084	45772	20
Eco40	Fal & Helford	SAC	182957	44304	80
Eco41	Fal & Helford	SAC	182998	44305	120
Eco45	Fal & Helford	SAC	186087	45769	20
Eco46	Fal & Helford	SAC	186105	45758	40
Eco47	Fal & Helford	SAC	186141	45738	80
Eco48	Fal & Helford	SAC	186174	45718	120
Eco49	Fal & Helford	SAC	186226	45687	180
Eco17	Newlyn Downs	SAC	182019	54931	10
Eco18	Newlyn Downs	SAC	182058	54940	50
Eco19	Newlyn Downs	SAC	182107	54950	100
Eco20	Newlyn Downs	SAC	182156	54960	150
Eco21	Newlyn Downs	SAC	182345	55349	10
Eco22	Newlyn Downs	SAC	182384	55343	50
Eco23	Newlyn Downs	SAC	182434	55335	100
Eco24	Newlyn Downs	SAC	182483	55328	150
Eco25	Newlyn Downs	SAC	183526	55173	10
Eco26	Newlyn Downs	SAC	183517	55134	50
Eco27	Newlyn Downs	SAC	183505	55085	100
Eco28	Newlyn Downs	SAC	183494	55037	150
Eco32	Newlyn Downs	SAC	184125	53959	150
Eco5	Penhale Dunes	SAC & SSSI	176942	54800	10
Eco6	Penhale Dunes	SAC & SSSI	176913	54828	50
Eco7	Penhale Dunes	SAC & SSSI	176877	54862	100
Eco8	Penhale Dunes	SAC & SSSI	176840	54897	150
Eco29	Penhale Dunes	SAC & SSSI	176938	54806	20
Eco33	Penhale Dunes	SAC & SSSI	175893	54627	200

ID	Receptor ID	Site Designation	X	Y	Distance from nearest road (m)
Eco36	Penhale Dunes	SAC & SSSI	176932	54812	20
Eco37	Penhale Dunes	SAC & SSSI	176893	54850	80
Eco38	Penhale Dunes	SAC & SSSI	176862	54881	120
Eco39	Penhale Dunes	SAC & SSSI	176819	54918	180
Eco1	River Camel	SAC	199097	62040.8	10
Eco2	River Camel	SAC	199079	62076.1	50
Eco3	River Camel	SAC	199055	62120.4	100
Eco4	River Camel	SAC	199032	62164.6	150



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