UK Plan for tackling roadside nitrogen dioxide levels

Implications for Fareham Gosport and Hampshire

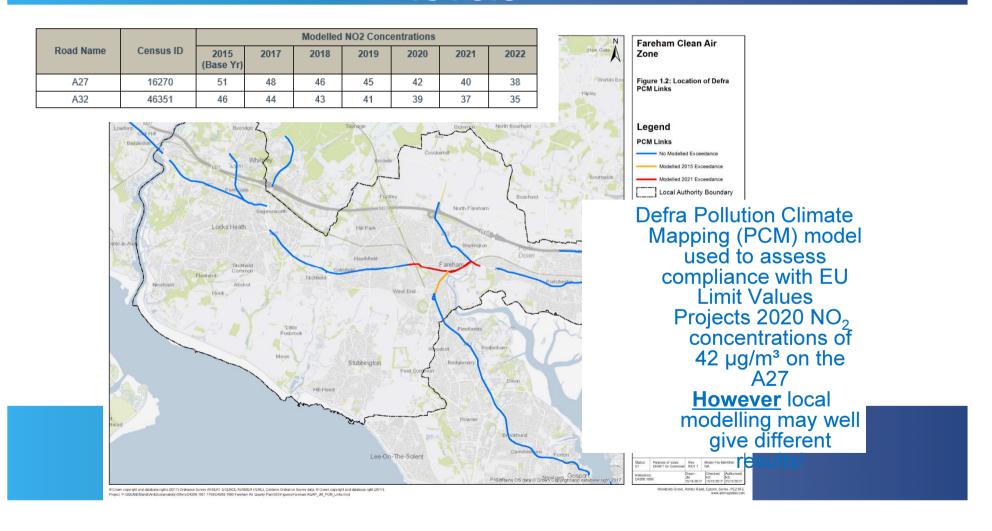
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Background

- 2008 Directive 2008/50/EC Compliance with EC target by 2010
- Extension to 2015
- 2015 (April) Supreme Court Order
- 2015 (September) First AQ plan draft
- 2015 (December) Final AQ plan Published
- 2016 (November) Plans quashed
- 2017 (May) updated plans published
- 2017 (July) Final AQ plan published
 "UK plan for tackling roadside nitrogen dioxide concentrations"
- ClientEarth have taken Govt to court again Jan 2018
-lost again today 21/02/2018

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UK Plan for tackling roadside nitrogen dioxide levels



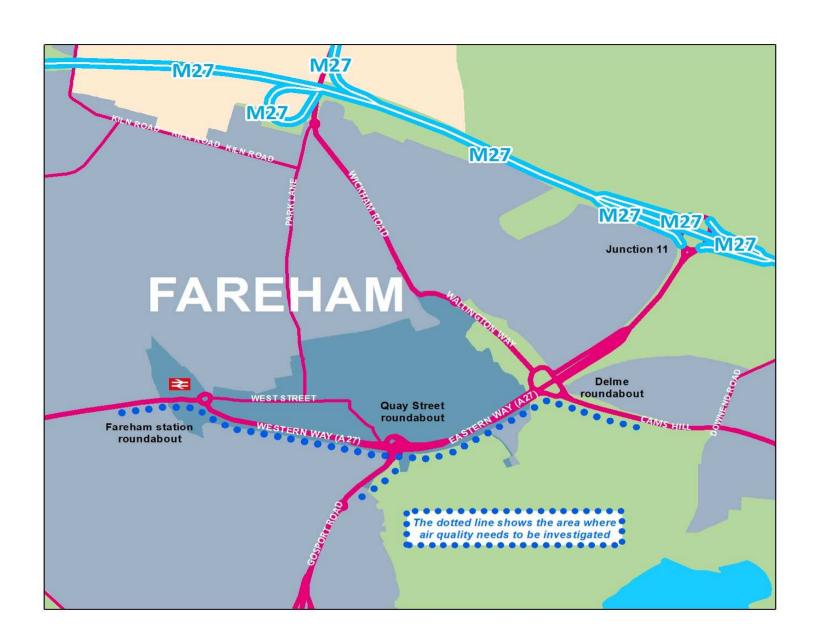
Implications

27 July 2017 Environment Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2017

Issued on 23 Local Authorities including Fareham requiring:-

- 1) By **31/03/2018 Initial Plan** to identify measures which will deliver compliance in the shortest possible time. (feasibility study)
- 2) By 31/12/2018 Final Plan to identify preferred option to deliver compliance in the shortest possible time (Working to 2020)

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Project management / Delivery

Establish Strategic Member led Group

Councillor Cartwright - Chair
Councillor Ford
Richard Jolley - Director Planning and Regulation
Graham Wright? - HCC Senior Transport Planner
Michael Lawther - Deputy CX Gosport

Ian Rickman – Head of EH Fareham & Gosport

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Project management / Delivery

Establish Technical Officer Group

Ian Rickman – Head of EH Fareham & Gosport
Graham Wright – HCC Senior Transport Planner
James Moore – HCC Transport
Oli Seebohm - FBC Transport Planner
Andrew Broster – GBC Policy Officer Transport and Traffic

Emily Clark – JAQU (DEFRA/DfT) Account Manager

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Collaborative working

Surrey Heath, Rushmoor and Guildford are undertaking the same work in respect of a section of bypass on the A331.

Fareham's issue is also with a section of bypass. We have the same DEFRA account holder and the same county involved.

Working collaboratively to share knowledge, expertise, pain and take advantage of procurement and project management savings for the avoidance of duplication.

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Project management / Delivery

Establish Collaborative Steering Group

Ian Rickman – Head of EH Fareham & Gosport
Justine Fuller – Guildford Council
Gary Durrant - Guildford Council
Richard Ward – Rushmoor Council
Emma Bourne – Surrey Heath Council

Emily Clark – JAQU (DEFRA/DfT)

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GUIDANCE **Local Authority Key Milestones** JAQU funding, Assurance & Review Initial assessment of support JAQU review & provide initial mobilisation funding management Proposal for a Feasibility Study Review Proposal for a Feasibility Study JAQU will review & provide funding In November 2017 at the latest working groups and local authority account Evidence Methodology Evidence Methodology Review JAQU will review JAQU review, including reassessing Strategic Outline Case (initial plans) funding needs Provide internal updates End of March 2018 at the latest Initial Evidence Review Initial Evidence Submission - JAQU will review, including reassessing Including target determination funding needs - Provide Internal updates documents, - JAQU review including reassessing funding needs Outline Business Case - Internal update and views sought on preferred option End of December 2018 at the latest and JAQU review material Guidance Full Business Case Sign off & implementation funding Expected by end of Dec 2018 if no consultation. If ultation, as soon as possible after Outline Business Cas Implementation, Monitoring and Ongoing JAQU support

Prescribed Process

Currently:-

Procure and undertake ANPR survey by 30 October

Submit plan for Feasibility plan by 30 November 2017

Current Position

December 2017 - Traffic Survey undertaken £100k, data being analysed

January 2018 – Bid to JAQU for further £750K waiting to hear

January 2018 - Early Measures Funding Bid - £250k (F&G taxi scheme)

March 2018 – Initial Plan submission

December 2018 – Final Plan submission

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Early Measures Funding

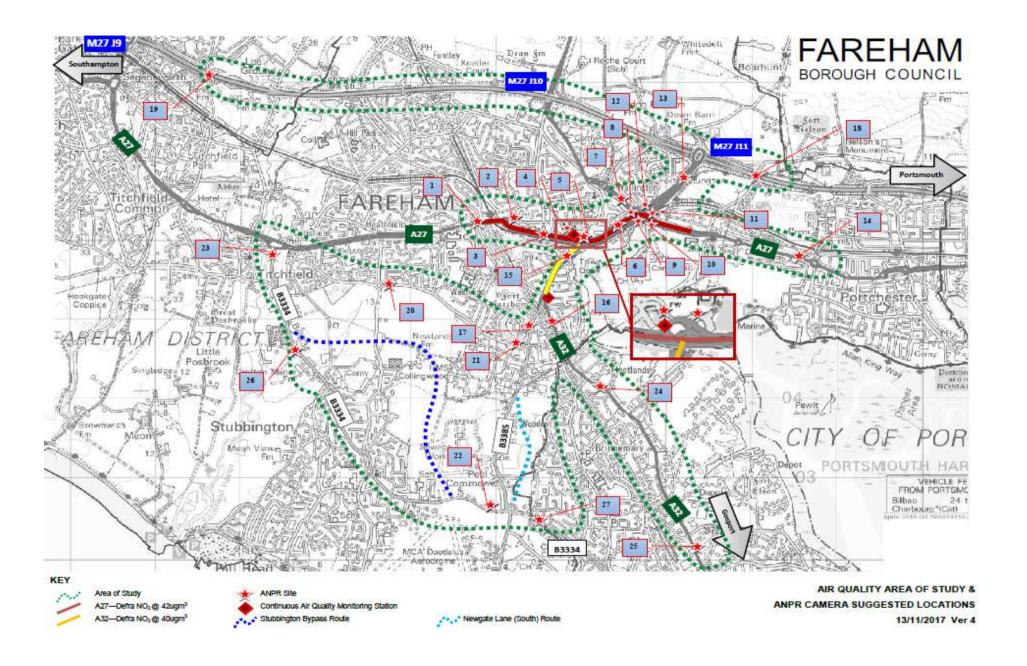
Up to £3 million bid for capital funding to improve air quality (Not for buses) examples:-

- Incentivise low emission take up
- behavioural change campaigns (incentive schemes, rewarding businesses, encouraging employees).
- encouraging active travel such as cycling + routes and networks)

Reducing journeys in air pollution hotspots

- Traffic management solutions (signage etc)
- Reductions in journeys through freight consolidation

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Average daily total flow over survey period

Average Weekday All Durations	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Total
01	1450	2918	149	264	443	5	160	105	1	492	- 1	28	802	922	191	201	176	1486	156	109	154	39	17	200	117	40	99	10719
02	1828	296	17	34	54	7	30	7	0	62	1	5	103	88	45	36	68	116	53	80	123	32	15	44	35	54	111	3345
03	73	18	17	38	85	2	19	18	0	124	0	4	347	145	53	42	49	309	46	8	8	4	2	53	24	3	20	1511
04	111	45	35	63	252	1	43	11	0	56	0	3	114	150	185	162	355	195	101	38	31	34	8	202	153	9	152	2506
05	162	13	23	16	24	1	23	4	0	23	0	1	79	64	73	48	92	81	48	20	15	16	3	48	38	7	44	963
06	66	27	57	36	24	13	12	7	0	6	0	1	69	14	693	178	896	19	21	11	88	57	27	731	504	22	315	3896
07	177	55	51	26	40	23	205	9	5	648	3	79	1003	1373	131	158	242	810	823	25	27	28	12	236	176	16	92	6470
08	2	1	1	1	1	5	31	0	1	33	0	3	7	67	17	1	1	3	4	0	1	1	0	2	0	0	1	183
09	130	28	117	21	42	330	24	30	0	10	- 1	2	19	23	143	83	196	23	21	16	39	17	9	153	113	13	73	1673
10	655	91	112	61	62	73	721	6	10	335	1	36	354	484	148	161	318	232	330	42	56	38	11	250	205	33	133	4954
11	7	2	17	3	1	8	117	0	1	17	0	12	12	141	10	10	5	2	4	1	3	2	1	11	6	1	4	393
12	1	0	0	0	1	0	5	0	0	0	2	1	316	1	1	0	1	249	173	0	0	0	0	1	0	1	0	753
13	244	67	67	73	60	91	402	7	3	234	260	51	270	538	296	334	542	2125	400	32	44	32	23	527	323	12	203	7257
14	1239	190	340	165	134	89	1416	18	8	557	1	58	718	1267	256	271	521	181	874	71	102	71	31	369	298	44	191	9477
15	124	34	27	142	175	13	142	44	2	147	0	11	544	264	210	115	245	587	328	13	32	14	4	148	98	6	93	3560
16	61	57	14	121	122	1	111	26	0	113	0	8	360	180	66	160	68	620	302	45	26	10	4	176	104	7	43	2803
17	86	79	29	254	206	6	253	86	1	256	1	16	1075	433	503	50	362	2169	752	170	106	41	8	35	34	14	106	7128
18	1979	297	349	300	196	309	1275	18	1	437	537	161	557	330	616	1084	2542	1083	19160	189	284	286	120	1914	1430	228	1050	36732
19	256	137	54	145	120	52	936	- 11	1	406	385	117	251	1255	316	480	928	28563	327	40	41	37	28	934	651	13	345	36826
20	113	156	18	65	64	1	51	22	0	94	0	3	206	116	55	87	400	413	32	824	1354	98	26	37	37	33	564	4867
21	69	88	7	29	26	2	16	6	0	28	0	2	58	52	53	27	190	125	28	1037	434	45	14	19	21	27	352	2754
22	36	45	4	38	31	2	27	12	0	37	0	2	87	61	50	16	71	248	23	81	59	462	670	12	84	265	1026	3447
23	5	24	4	11	6	1	9	3	0	9	0	0	26	15	15	7	15	54	7	23	16	556	225	6	36	2811	695	4576
24	36	47	11	113	95	3	114	30	1	135	0	5	487	179	204	416	52	695	406	27	20	16	5	116	141	8	48	3408
25	81	54	23	220	167	4	231	60	1	232	0	13	922	351	428	288	71	1638	810	22	28	67	46	337	618	25	157	6891
26	20	40	6	17	12	1	9	4	0	16	1	1	35	25	16	18	29	86	7	64	65	499	3707	12	44	524	684	5942
27	55	129	15	140	110	5	134	33	1	133	1	8	515	183	250	43	283	1094	344	352	375	1257	1484	44	121	637	1114	8859
Total	9058	4935	1564	2393	2549	1046	6515	577	36	4638	1192	631	9332	8719	5020	4474	8715	43206	25579	3338	3531	3759	6498	6617	5409	4850	7714	181893

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Local fleet composition compared to National

National Composition

TVUIIOTUI O					
	C	ar			
	Petrol	Diesel	LGV	HGV	Bus
Euro 1	0%	0%	0%	0%	0%
Euro 2	0%	0%	1%	1%	3%
Euro 3	6%	3%	5%	7%	13%
Euro 4	12%	9%	20%	7%	10%
Euro 5	18%	18%	42%	26%	33%
Euro 6	17%	16%	33%	58%	40%
Fleet Split	45%	38%	14%	2%	1%

Site 3

One o					
	С	ar			
	Petrol	Diesel	LGV	HGV	Bus
Euro 1	0%	0%	0%	0%	0%
Euro 2	0%	0%	0%	0%	0%
Euro 3	2%	1%	2%	3%	4%
Euro 4	16%	11%	28%	23%	3%
Euro 5	20%	23%	51%	49%	33%
Euro 6	15%	13%	19%	25%	60%
Fleet Split	45%	40%	10%	2%	3%
Total Vehs	6,426	5,687	1,389	295	362

Site 6

	С	ar			
	Petrol	Diesel	LGV	HGV	Bus
Euro 1	0%	0%	0%	0%	0%
Euro 2	0%	0%	0%	0%	0%
Euro 3	2%	1%	2%	2%	9%
Euro 4	16%	11%	25%	19%	16%
Euro 5	18%	23%	54%	54%	39%
Euro 6	15%	13%	20%	25%	36%
Fleet Split	42%	40%	14%	3%	1%
Total Vehs	10,420	9,930	3,338	689	145

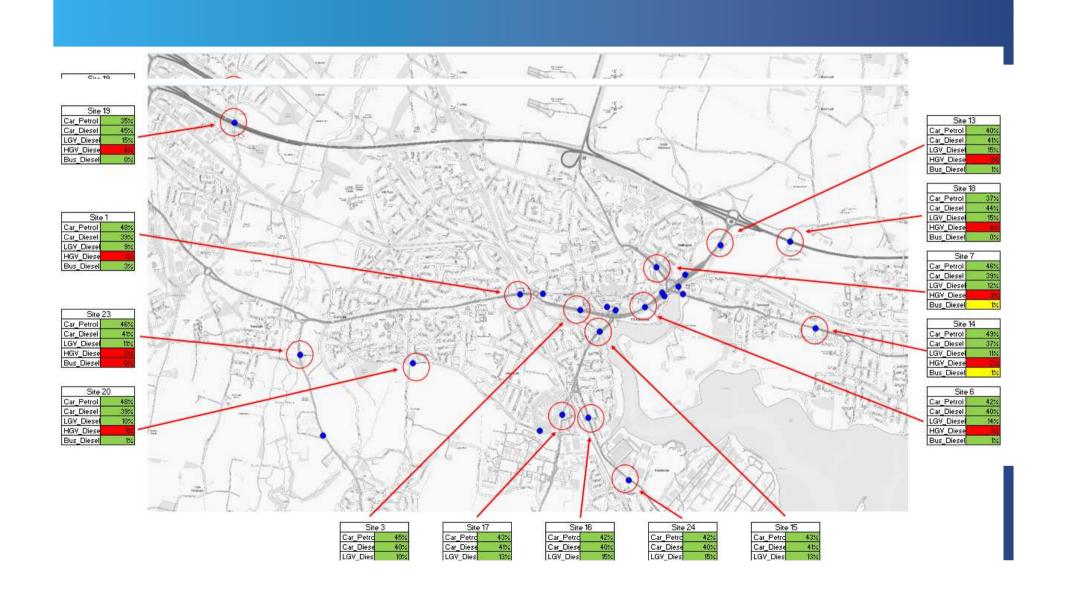
Site 10

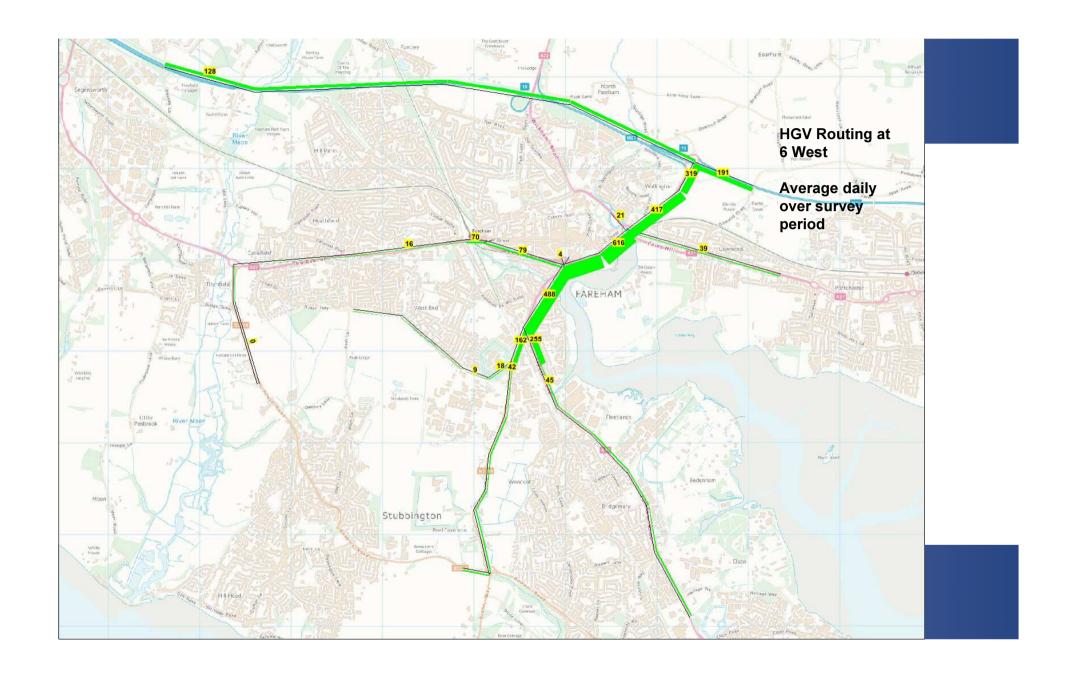
<u>Site 10</u>					
	С	ar			
	Petrol	Diesel	LGV	HGV	Bus
Euro 1	0%	0%	0%	0%	09
Euro 2	0%	0%	0%	0%	09
Euro 3	4%	1%	3%	2%	379
Euro 4	18%	10%	29%	24%	89
Euro 5	20%	21%	50%	59%	339
Euro 6	14%	11%	18%	15%	229
Fleet Split	49%	38%	10%	1%	19
Total Vehs	10,622	8,212	2,134	312	25

Site 15

	one ro					
		С	ar			
		Petrol	Diesel	LGV	HGV	Bus
09	Euro 1	0%	0%	0%	0%	0%
09	Euro 2	0%	0%	0%	0%	1%
79	Euro 3	2%	1%	2%	2%	14%
89	Euro 4	16%	12%	24%	18%	13%
39	Euro 5	18%	23%	54%	55%	43%
29	Euro 6	15%	13%	20%	25%	29%
19	Fleet Split	43%	41%	13%	3%	1%
25	Total Vehs	16,532	15,809	5,183	1,053	258

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Relative NOX emissions by site / vehicle

Split by vehicle type and Euro Standard

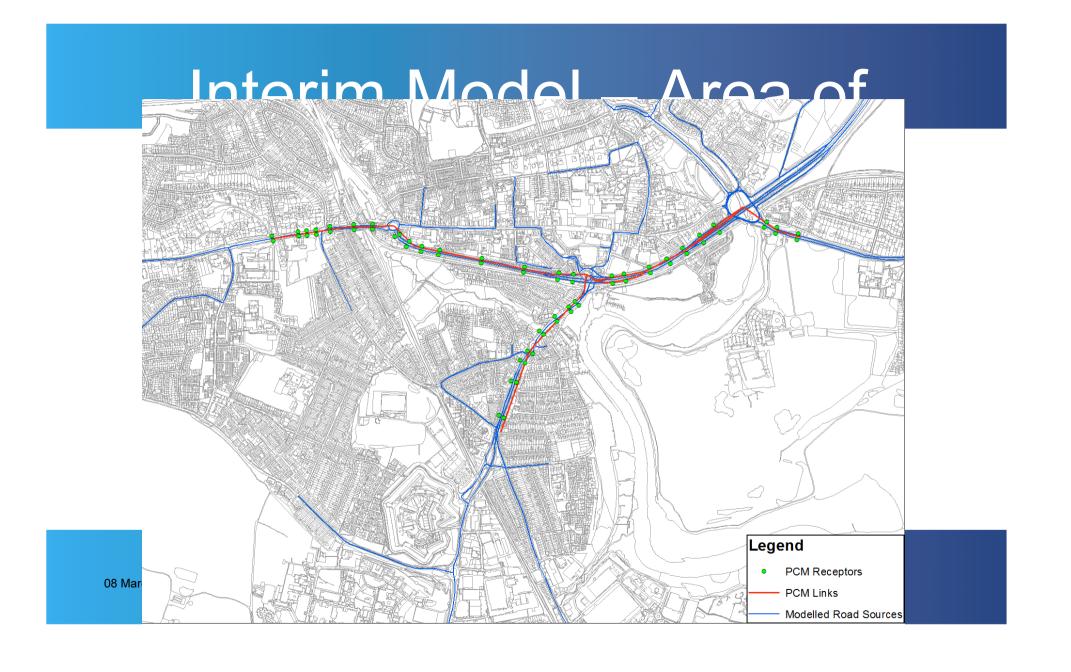
Site 3	Cars		Vans		HGVs		Buses	
	Petrol	Diesel	Petrol	Diesel	Rigid	Artic		
Euro 1	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Euro 2	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Euro 3	0.5%	1.3%	0.0%	0.5%	0.7%	0.3%	1.2%	
Euro 4	2.3%	10.2%	0.0%	4.4%	3.2%	1.4%	0.8%	
Euro 5	1.9%	24.7%	0.0%	12.8%	7.9%	1.8%	5.8%	
Euro 6	1.5%	11.5%	0.0%	3.8%	0.2%	0.1%	0.7%	
TOTAL	6.4%	47.8%	0.0%	21.5%	12.0%	3.6%	8.6%	

Site 6	Cars		Va	ns		HG	Vs		Buses	
	Petrol	Diesel	Pe	trol	Diesel	Rig	id	Artic		
Euro 1	0.0%	0.0%		0.0%	0.0%		0.0%	0.0%	0.0%	
Euro 2	0.2%	0.0%		0.0%	0.0%		0.0%	0.0%	0.0%	
Euro 3	0.4%	1.1%		0.0%	0.4%		0.4%	0.2%	0.7%	
Euro 4	2.1%	ت.ت تارون	1	0.0%	5.1%	1	3.4%	1.5%	0.8%	
Euro 5	1.69	22.5%		0.0%	17.1%		10.8%	2.5%	1.5%	
Euro 6	1.3%	10.8%		0.0%	5.1%		0.3%	0.1%	0.1%	
TOTAL	5.59%	44.01/0		0.01%	27.76%	1	L4.92%	4.32%	3.04%	

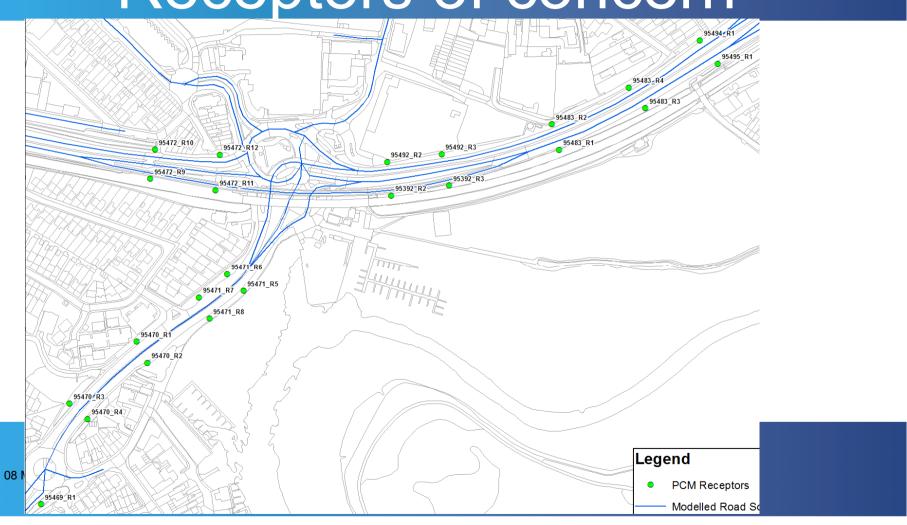
Site 15	Cars		Vans		HGVs		Buses	
	Petrol	Diesel	Petrol	Diesel	Rigid	Artic		
Euro 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Euro 2	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	
Euro 3	0.4%	0.9%	0.0%	0.4%	0.4%	0.2%	1.2%	
Euro 4	2.1%	10.0%	0.0%	4.9%	3.1%	1.4%	0.7%	
Euro 5	1.6%	23.1%	0.0%	16.9%	10.6%	2.5%	1.9%	
Euro 6	1.3%	10.6%	0.0%	5.1%	0.3%	0.1%	0.1%	
TOTAL	5.6%	44.7%	0.0%	27.3%	14.4%	4.1%	3.9%	

Site 10	Cars		Vans		HGVs		Buses
	Petrol	Diesel	Petrol	Diesel	Rigid	Artic	
Euro 1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Euro 2	0.4%	0.0%	0.0%	0.0%	0.0%	0.09	0.0%
Euro 3	0.9%	2.0%	0.0%	0.6%	0.3%	0.1 %	6.0%
Euro 4	2.8%	10.5%	0.0%	4.8%	2.4%	1.1%	0.9%
Euro 5	2.1%	23.9%	0.0%	13.2%	6.9%	1.6%	2.8%
Euro 6	1.5%	10.9%	0.0%	3.8%	0.1%	0.0%	0.1%
TOTAL	7.68%	47.40%	0.01%	22.46%	9.72%	2.85%	9.88%

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Receptors of concern



Interim Model Results - 2021



	i									
Receptor ID	PCM Link ID	2017	2018	2019	2020	2021	2022	2023	2024	2025
95392_R2	95392	43.8	42.2	40.7	39.0	37.3	35.6	33.9	32.2	30.4
95469_R2	95469	46.3	44.2	42.1	39.9	37.6	35.3	33.0	30.6	28.2
95470_R1	95470	48.1	46.3	44.4	42.4	40.3	38.2	36.1	34.0	31.9
95470_R3	95470	45.7	43.8	42.0	40.0	38.0	36.0	33.9	31.9	29.8
95471_R6	95471	47.6	45.8	43.9	41.8	39.8	37.7	35.6	33.4	31.3
95471_R7	95471	47.4	45.5	43.6	41.6	39.5	37.4	35.3	33.2	31.1
95483_R1	95483	46.8	44.9	42.9	40.8	38.6	36.5	34.3	32.1	29.9
95483_R2	95483	44.6	42.8	40.9	38.9	36.9	34.8	32.8	30.7	28.7
95483_R3	95483	48.1	46.1	44.1	41.9	39.7	37.4	35.2	32.9	30.6
95483_R4	95483	43.9	42.1	40.2	38.2	36.2	34.1	32.1	30.1	28.0
95486_R1	95486	40.5	38.8	37.1	35.4	33.6	31.8	30.0	28.2	26.4
95486_R5	95486	40.3	38.7	37.1	35.4	33.6	31.9	30.1	28.4	26.6
95489_R4	95489	43.6	41.9	40.2	38.4	36.6	34.7	32.9	31.0	29.2
95489_R5	95489	40.6	39.0	37.5	35.8	34.2	32.5	30.9	29.2	27.6
95492_R2	95492	48.8	47.1	45.3	43.4	41.4	39.5	37.5	35.5	33.5
95492_R3	95492	45.9	44.1	42.2	40.2	38.2	36.2	34.2	32.1	30.1
95494_R1	95494	42.3	40.5	38.7	36.8	34.8	32.8	30.9	28.9	27.0
95495_R1	95495	47.8	45.8	43.8	41.6	39.4	37.2	35.0	32.7	30.5
95495_R2	95495	42.6	40.8	39.0	37.1	35.1	33.2	31.2	29.3	27.3
95495_R3	95495	42.0	40.3	38.5	36.6	34.6	32.7	30.8	28.9	26.9

Source Apportionment



Link	_	Background_ NO2	-	Petrol Car	Diesel Car	Petrol LGV	Diesel LGV	Rigid HGV	Artic HGV	Buses	Coaches	Other
A32	40.3	13.1	27.2	1.4	12.2	0.0	3.5	7.4	0.6	1.3	0.7	0.0
A27	41.4	12.4	29.1	2.1	16.7	0.0	4.9	4.0	0.4	0.5	0.3	0.1

CAZ Benchmarking

42.6

95495_R2



Do minimum / Business as usual

ווו טכו		uiii /	Dusiness as			usuai		Total NO2	
Receptor - P	CM Link 🕝	2017 .	2018 -	2019 -	2020 -	2021 -	2022 -	2023 -	2024 -
95392_R2 9	5392	43.8	42.2	40.7	39.0	37.3	35.6	33.9	32.2
95469_R2 9	5469	46.3	44.2	42.1	39.9	37.6	35.3	33.0	30.6
95470_R1 9	5470	48.1	46.3	44.4	42.4	40.3	38.2	36.1	34.0
95470_R3 9	5470	45.7	43.8	42.0	40.0	38.0	36.0	33.9	31.9
95471_R6 9	5471	47.6	45.8	43.9	41.8	39.8	37.7	35.6	33.4
95471_R7 9	5471	47.4	45.5	43.6	41.6	39.5	37.4	35.3	33.2
95483_R1 9	5483	46.8	44.9	42.9	40.8	38.6	36.5	34.3	32.1
95483_R2 9	5483	44.6	42.8	40.9	38.9	36.9	34.8	32.8	30.7
95483_R3 9	5483	48.1	46.1	44.1	41.9	39.7	37.4	35.2	32.9
95483_R4 9	5483	43.9	42.1	40.2	38.2	36.2	34.1	32.1	30.1
95486_R1 9	5486	40.5	38.8	37.1	35.4	33.6	31.8	30.0	28.2
95486_R5 9	5486	40.3	38.7	37.1	35.4	33.6	31.9	30.1	28.4
95489_R4 9	5489	43.6	41.9	40.2	38.4	36.6	34.7	32.9	31.0
95489_R5 9	5489	40.6	39.0	37.5	35.8	34.2	32.5	30.9	29.2
95492_R2 9	5492	48.8	47.1	45.3	43.4	41.4	39.5	37.5	35.5
95492_R3 9	5492	45.9	44.1	42.2	40.2	38.2	36.2	34.2	32.1
95494_R1 9	5494	42.3	40.5	38.7	36.8	34.8	32.8	30.9	

39.0

37.1

35.1

CAZ A (Buses/Taxis Euro 6)

								Total NO2	
Receptor 3	PCM Link -	2017 -	2018 -	2019 -	2020 -	2021 -	2022 -	2023 -	2024 -
95392_R2	95392	43.4	41.9	40.3	38.6	36.9	35.2	33.5	31.8
95469_R2	95469	43.9	42.0	40.0	37.9	35.9	33.7	31.6	29.5
95470_R1	95470	46.5	44.7	42.8	40.9	38.9	36.9	34.8	32.8
95470_R3	95470	44.1	42.3	40.5	38.6	36.7	34.7	32.7	30.7
95471_R6	95471	45.9	44.1	42.3	40.3	38.4	36.4	34.4	32.4
95471_R7	95471	45.7	43.9	42.0	40.1	38.2	36.2	34.2	32.2
95483_R1	95483	45.0	43.1	41.2	39.2	37.2	35.1	33.0	31.0
95483_R2	95483	44.0	42.1	40.2	38.3	36.2	34.2	32.2	30.2
95483_R3	95483	46.2	44.3	42.3	40.2	38.1	36.0	33.9	31.7
95483_R4	95483	43.3	41.4	39.6	37.6	35.6	33.5	31.5	29.5
95486_R1	95486	39.6	38.0	36.3	34.6	32.8	31.1	29.3	27.6
95486_R5	95486	39.5	37.9	36.3	34.6	32.9	31.1	29.4	27.7
95489_R4	95489	41.2	39.6	38.1	36.4	34.8	33.1	31.5	29.9
95489_R5	95489	38.3	36.9	35.5	34.0	32.6	31.1	29.6	28.2
95492_R2	95492	48.1	46.3	44.5	42.6	40.7	38.7	36.8	34.8
95492_R3	95492	44.3	42.6	40.8	38.9	37.0	35.1	33.2	31.3
95494_R1	95494	41.7	39.9	38.1	36.2	34.3	32.3	30.4	28.4
95495_R1	95495	45.9	44.0	42.0	40.0	37.9	35.8	33.7	31.6
95495_R2	95495	41.4	39.7	37.9	36.1	34.2	32.3	30.4	28.5
95495 R3	95495	40.9	39.2	37.4	35.6	33.7	31.9	30.0	28.1

35.0

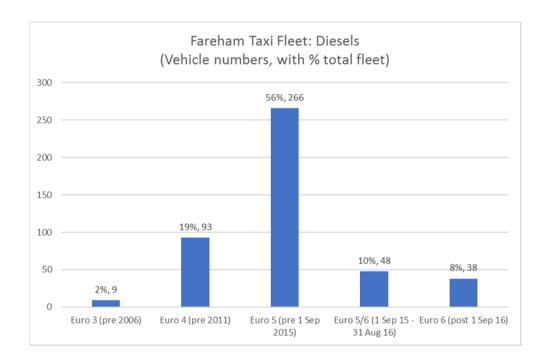
31.2

37.2

33.2 32.7

Fareham Taxi Fleet





Tasks going forwards

- Complete and issue analysis of ANPR data to inform option development / appraisal
 - Including additional analysis of Taxis & PHVs
- Complete preliminary AQ modelling to inform option appraisal
- Finalise long-list of measures
- Develop appraisal criteria
 - Key factor will be when compliance will be achieved which can be estimated using air quality model outputs
- Produce SOC, including shortlist of options
- Initial Evidence Submission (June 2018)
- Outline Business Case (December 2018)

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Questions?

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