2019 Air Quality Annual Status Report (ASR)

In fulfilment of Part IV of the
Environment Act 1995
Local Air Quality Management

Date: June 2019

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Executive Summary: Air Quality in Our Area

Air Quality in Test Valley Borough Council

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because areas with poor air quality are also often the less affluent areas[1,2].

The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion[3].

Due to the importance of the potential impact of poor air quality on health, Test Valley is required to review and assess air quality within the Borough on a regular basis. This involves the production of an Annual Status Report by 30th June 2019 and is intended to maintain continuity in the Local Air Quality Management process. This report includes the results of on-going monitoring of air quality pollutants within the Borough where emissions from a range of sources could adversely impact sensitive receptors.

This Annual Status Report includes the results of nitrogen dioxide diffusion tube monitoring carried out in 2018. This has indicated trends that are either stable or downward at all 17 sites and there is no evidence that the Annual Mean concentration of nitrogen dioxide may exceed the specific Air Quality Objective of 40µg/m^3. They have also assisted the Highways Agency and undertaken monitoring in six further sites. Based on the findings of this report, Test Valley Borough Council

[1] Environmental equity, air quality, socioeconomic status and respiratory health, 2010
[2] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006
[3] Defra. Abatement cost guidance for valuing changes in air quality, May 2013

has found no evidence that the levels of any other relevant pollutants may exceed the specific Air Quality Objectives and therefore has not identified the need to designate any Air Quality Management Areas.

Although a review of planning applications received by Test Valley during 2018 has not identified any new major sources of emissions within the borough, any proposed developments which may have possible significant implications for local air quality have been assessed. Proposed large scale developments where there is expected to be a significant air quality impact have been subject to formal air quality assessment as part of the planning process.

Actions to Improve Air Quality

The Council takes its responsibilities for air quality very seriously and any proposals within the Borough are carefully assessed in accordance with the Local Plan. Development that would or could generate potentially significant levels of pollution will only be permitted if it can be demonstrated that there would not be any adverse impact on human health, the natural environment or general amenity.

Test Valley has agreed to work with Southampton City Council to help them achieve their aim to improve air quality in the Southampton Urban Area Agglomeration Zone. The Air Quality Plan for Southampton Urban Area was originally published in December 2015 and Test Valley Borough Council will be working with our neighbouring local authorities (Southampton City Council, Winchester City Council and Eastleigh Borough Council) to target sources of nitrogen dioxide in the Southampton Urban Area (UK0019).

TVBC will explore with Hampshire County Council (HCC) the possibility of identifying possible measures linking $PM_{2.5}$ with public health and how the success of reduction measures could best be measured. These measures and any positive outcomes will then be reported in future Air Quality Annual Status Reports.

The South of the Test Valley Borough is encompassed by the Partnership for Urban South Hampshire (PUSH), Air Quality Impact Assessment, the results of a modelling exercise for within the analysis area for NO_2 PM10 and PM2.5 has been analysed and modelled.

Conclusions and Priorities

- No exceedances of the current Air Quality Objectives have been identified.
- The overall trends in the data have shown a steady improvement in air quality - see Figure A.1
- Test Valley Borough Council will continue to carefully consider future planning applications which may have the potential to impact air quality in Test Valley and within the vicinity of the Southampton Urban Area.
- The monitoring sites will be reviewed and new areas targeted in 2019.

Local Engagement and How to get involved

We have posted information on the Test Valley Borough Council's website with regards to:

Air Quality:
http://www.testvalley.gov.uk/housingandenvironmentalhealth/environmentalprotection/air-quality

Sustainability:
http://www.testvalley.gov.uk/aboutyourcouncil/corporatedirection/environmentandsustainability

Travel Planning:
http://www.testvalley.gov.uk/transportparkingandstreets/public-transport

Cycling and Walking:
http://www.testvalley.gov.uk/communityandleisure/cyclingwalking

With updates with regards to new sustainable travel initiatives such as, bus services, walking and cycling provision and residents travel plans:

http://www.testvalley.gov.uk/communityandleisure/workingwithcommunities/mylocalarea/alamein/augusta-park/east-anton-augusta-park-community-travel-plan

and,

http://www.testvalley.gov.uk/communityandleisure/workingwithcommunities/mylocalarea/romsey-extra/abbotswood/travel-abbotswood

Moreover, we are working with partners to inform the public and special interest groups, such as taxi drivers, about the need to think about air quality, such as turning off their engines when idling. Other issues such as the provision of electric car charging points across the district are being explored at a strategic level.

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1 Local Air Quality Management

This report provides an overview of air quality in Test Valley during 2018. It fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents.

The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. This Annual Status Report (ASR) is an annual requirement showing the strategies employed by Test Valley Borough Council to improve air quality and any progress that has been made.

The statutory air quality objectives applicable to LAQM in England can be found in Table E.1 in Appendix E.

2 Actions to Improve Air Quality

2.1 Air Quality Management Areas

Air Quality Management Areas (AQMAs) are declared when there is an exceedance or likely exceedance of an air quality objective. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures it intends to put in place in pursuit of compliance with the objectives.

Test Valley Borough Council currently does not have any AQMAs. The Council does utilise a number of local and regional plans and strategies in order to minimise and/or reduce potential impacts on air quality within the Borough. For example:

- Hampshire Local Plan (2011- 2031);
- Test Valley Borough Council Local Plan (2011 – 2029);
- Partnership for Urban South Hampshire Air Quality Impact Assessment (PUSH).

For reference, a map of Test Valley Borough Council's monitoring locations is available in Appendix D.

Table 2.1 – Declared Air Quality Management Areas

Test Valley Borough Council has not declared any Air Quality Management Areas.

2.2 Progress and Impact of Measures to address Air Quality in Test Valley Borough Council

Defra's appraisal of last year's Annual Status Report concluded:

> **Commentary**
>
> The report is well structured, detailed, and provides the information specified in the Guidance, using the latest report template. The following comments are made:
>
> 1. The latest monitoring confirms that no exceedances of the current Air Quality Objectives have been identified.
> 2. The current monitoring programme appears to have been in place for at least the last five years monitoring at central urban sites in Romsey, Chilworth and Andover. There are no results close to the objective levels, thus we consider it would be reasonable to review the current programme. The Council area includes some significant trunk routes, in addition to the main urban centres, and residential areas close to busy main traffic routes should all be considered where there is relevant exposure.

The opportunity has been taken to review the monitoring locations to ensure that significant trunk roads, main urban centres and residential area close to busy main traffic routes are being considered especially in light of major developments within the Borough.

Test Valley Borough Council has taken forward a number of direct measures during the current reporting year of 2018 in pursuit of improving local air quality. Details of all measures completed, in progress or planned are set out in Table 2.2.

More detail on these measures can be found in their respective Action Plans Key completed measures are:

Test Valley Borough Council has a number of measures in place during the reporting year of 2018 which have direct and indirect benefits in the pursuit of improving local air quality. Copies of the main reference plans/strategies can be found via the web-links listed below:

Local Transport Plan (2011 – 2031)
http://www3.hants.gov.uk/transport/local-transport-plan.htm

Test Valley Borough Council's Local Plan (2011 – 2029)
http://www.testvalley.gov.uk/planning-and-building/planningpolicy/local-development-framework

and the latest update:

http://www.testvalley.gov.uk/housingandenvironmentalhealth/environmentalprotection/air-quality

Test Valley's priorities for the coming year are to continue monitoring concentrations of nitrogen dioxide across the Borough, ensure that all proposed development is subject to scrutiny to ensure that compliance with Policy E8 of the Council's Local Plan and work with our neighbouring local authorities with regards to the non-compliance for nitrogen dioxide in the Southampton Urban Area Clean Air Zone. Moreover, we will complete the work with Highways Agency with regard to the joint monitoring program.

The principal challenges and barriers to implementation that Test Valley Borough Council anticipates facing, are that the main driver for air quality in the borough is traffic. Traffic management within the borough is largely beyond the control of Test Valley Borough Council, and is currently the responsibility of Hampshire County Council and Highways England.

Table 2.2 – Progress on Measures to Improve Air Quality

Measure No.	Measure	EU Category	EU Classification	Organisations involved and Funding Source	Planning Phase	Implementation Phase	Key Performance Indicator	Reduction in Pollutant / Emission from Measure	Progress to Date	Estimated / Actual Completion Date	Comments / Barriers to implementation
1	NO2			Southampton City Council	Ongoing	2017-2020	Compliance by 2020		Partnership working agreed	2020	
2	PM2.5			Test Valley Borough Council	2017/18	2018-2020			Initial discussions held	2020	
3	Bargin Farm and Nursling Park and Ride	Alternatives to private vehicle use	Bus based Park & Ride	Test Valley Borough Council	Completed	TBC	Site allocated in Borough Local Plan 2011 -2029 Policy T3	Reduction in Pollutant / Emission from Measure	Feasibility study completed	TBC	
4	Car Sharing for Travel to work and for visits	Alternatives to private vehicle use	Car & lift sharing schemes	Test Valley Borough Council	Completed 2002	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	
5	Gratley and Andover Railway Station	Alternatives to private vehicle use	Rail based Park & Ride	Test Valley Borough Council	Completed	Completed	Increase in the number of passengers using the facility	Reduction in Pollutant / Emission from Measure	Andover and Grateley parking capacity increased	Summer 2017	
6	Salary Sacrifice for Bicycles	Alternatives to private vehicle use	Other	Test Valley Borough Council	Completed 2012	Ongoing		Reduction in Pollutant / Emission from Measure	29 people on the scheme to date	Ongoing	
7	New Car Purchase Scheme	Alternatives to private vehicle use	Other	Test Valley Borough Council	Completed 2014	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	

8	Risk based charging for permits	Environmental Permits	Other measure through permit systems and economic instruments	Test Valley Borough Council		Ongoing	Maximise the number of low risk permitted sites	Reduction in Pollutant / Emission from Measure	44 out of 45 permitted processes with low risk scores	Ongoing	
9	Co-op Distribution Centre, Andover Airfield Business Park	Freight and Delivery Management	Route Management Plans/ Strategic routing strategy for HGV's	Test Valley Borough Council	Completed 2010	TRO on unsuitable route introduced	TRO implemented	Reduction in Pollutant / Emission from Measure		Ongoing	
10		Policy Guidance and Development Control	Sustainable Procurement Guidance	Test Valley Borough Council	Completed 2012	Ongoing		Reduction in Pollutant / Emission from Measure	Updated January 2017	Ongoing	
11	Zero Emissions Vehicles	Promoting Low Emission Transport	Company Vehicle Procurement - Prioritising uptake of low emission vehicles	Test Valley Borough Council	Completed 2015	7 electric vehicles now within the Councils fleet		Reduction in Pollutant / Emission from Measure	Updated June 2018	Ongoing	
12	Electric Vehicle recharging points	Promoting Low Emission Transport	Other	Test Valley Borough Council	Completed 2015	2 EV charging points installed at Romsey Sports centre. Feasibility study to ascertain possible locations for more EV charging points		Reduction in Pollutant / Emission from Measure		Ongoing	
13	Taxi Licensing	Promoting Low Emission Transport	Taxi Licensing conditions	Test Valley Borough Council	Completed 2014	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	Reviewed regularly
14	TVBC staff working from home	Promoting Travel Alternatives	Encourage / Facilitate home-working	Test Valley Borough Council	Ongoing			Reduction in Pollutant / Emission from Measure		Ongoing	

15	Travel Plan	Promoting Travel Alternatives	Promote use of rail and inland waterways	Test Valley Borough Council	Travel Plan updated in 2015	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	Reviewed annually
16	Promote rail services for personal and work journeys	Promoting Travel Alternatives	Promote use of rail and inland waterways	Test Valley Borough Council	Travel Plan updated in 2015	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	
17	Cycling events and activities within the Borough and nearby - e.g. Bike Week	Promoting Travel Alternatives	Promotion of cycling	Test Valley Borough Council		Ongoing	Events/activity monitored	Reduction in Pollutant / Emission from Measure		Ongoing	
18	Walking as a sustainable means for travel for staff and residents or short journeys within the settlements of Andover and Romsey	Promoting Travel Alternatives	Promotion of walking	Test Valley Borough Council	Completed 2002	Ongoing	Participation monitored	Reduction in Pollutant / Emission from Measure		Ongoing	
19	Walk to school' schemes	Promoting Travel Alternatives	Promotion of walking	Hampshire County Counicl	Completed 2000	Ongoing	Participation monitored	Reduction in Pollutant / Emission from Measure		Ongoing	
20	Community travel plans for large mixed use developments have been secured, promoted delivers by the council	Promoting Travel Alternatives	Intensive active travel campaign & infrastructure	Test Valley Borough Council and Hampshire County Council	Completed 2001	Ongoing			Several travel plans approved including two for Major Development Sites in Andover, large residential areas in Romsey and Nursling and Employment sites in Andover and Nursling.	Ongoing	
21	Walking and Cycling guide s have been produced for Test Valley and Andover and Romsey	Public Information	Via leaflets	Test Valley Borough Council	Completed 2005. Updates to Romsey leaflet being planned	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	

22	The above guides are also available in the TVBC website	Public Information	Via the Internet	Test Valley Borough Council	Completed 2010	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	
23	Major Residential Development in Andover and Romsey providing new infrastructure to provide priority (bus only underpass arch and bus gates)	Transport Planning and Infrastructure	Bus route improvements	Test Valley Borough Council	Bus only underpass completed in Andover the rest is ongoing.			Reduction in Pollutant / Emission from Measure		Ongoing	
24	There are two high quality bus partnerships in Test Valley on high frequency bus routes linking urban areas	Transport Planning and Infrastructure	Bus route improvements	Test Valley Borough Council	Completed 2001	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	
25	Supplementary planning document: Cycle Strategy adopted by the council	Transport Planning and Infrastructure	Cycle network	Test Valley Borough Council	Reviewed and updated in 2015	Ongoing		Reduction in Pollutant / Emission from Measure	Updated 2015	Ongoing	
26	Certificate of Professional Competence Training for staff	Vehicle Fleet Efficiency	Driver training and ECO driving aids	Test Valley Borough Council	Completed	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	
27	Regular Emissions testing of Council Vehicle Fleet	Vehicle Fleet Efficiency	Driver training and ECO driving aids	Test Valley Borough Council	Completed	Ongoing		Reduction in Pollutant / Emission from Measure		Ongoing	

2.3 $PM_{2.5}$ – Local Authority Approach to Reducing Emissions and/or Concentrations

As detailed in Policy Guidance LAQM.PG16 (Chapter 7), local authorities are expected to work towards reducing emissions and/or concentrations of $PM_{2.5}$ (particulate matter with an aerodynamic diameter of 2.5µm or less). There is clear evidence that $PM_{2.5}$ has a significant impact on human health, including premature mortality, allergic reactions, and cardiovascular diseases.

Test Valley Borough Council is taking the following measures to address $PM_{2.5}$ Although Test Valley does not currently monitor for Particulate Matter, current data indicates that $PM_{2.5}$ varies across the borough with background concentrations of between 8.94µg/m^3 and 12.16µg/m^3 (Source: https://uk-air.defra.gov.uk/data/laqm-background-home). At present, there is no Air Quality Objective for $PM_{2.5}$.

Key sources of $PM_{2.5}$ include road traffic and industrial emissions and whilst TVBC only has a limited role in road traffic management it will continue to work with Hampshire County Council and Highways England in addition to Hampshire County Council's Public Health team and Public Health England to reduce $PM_{2.5}$ emissions wherever possible.

Table 2.2 includes a list of existing measures, (e.g. Measure Numbers 1-5: Alternatives to Private Vehicle Use and Measure Numbers 11-18: Promoting Travel Alternatives) which not only have the potential to reduce concentrations of $PM_{2.5}$ but are likely to have a positive impact on other atmospheric pollutants including nitrogen dioxide and PM_{10}.

Defra's appraisal of last year's Annual Status Report concluded that Test Valley should collaborate with the Public Health England in respect of $PM_{2.5}$ in order to identify potential areas of concern within the borough where air quality might have a

direct link with the incidence of asthma. Test Valley is part of a countywide group who are looking at moving forward on this issue.

Test Valley's priorities for the coming year are:

1. To continue working with our neighbouring local authorities of Southampton City Council, Winchester City Council and Eastleigh Borough Council in respect of the Southampton Urban Area.
2. Work with Hampshire County Council's Public Health team and Public Health England - South East in order to identify additional measures to improve air quality.

The principal *challenges* and *barriers* to implementation that Test Valley anticipates facing in relation to its priorities are:

i. Traffic management within the borough is largely beyond the control of Test Valley Borough Council, and is currently the responsibility of Hampshire County Council and Highways England.
ii. It is currently prohibitively expensive for a borough such as Test Valley Borough Council to directly measure concentrations of $PM_{2.5}$.

Whilst the measures set out in Table 2.2 will help to contribute towards continuing compliance with current Air Quality Objectives, Test Valley anticipates that further additional measures not yet prescribed will be required in subsequent years to achieve compliance for nitrogen dioxide in the Southampton Urban Area.

3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance

3.1 Summary of Monitoring Undertaken

3.1.1 Automatic Monitoring Sites

This section sets out what monitoring has taken place and how it compares with objectives.

Test Valley Borough Council does not currently have any automatic (continuous) monitoring sites.

3.1.2 Non-Automatic Monitoring Sites

Test Valley Borough Council undertook non- automatic (passive) monitoring of Nitrogen Dioxide at 17 sites during 2018. We also undertook monitoring, in association with Highways England, in six sites in the south of the borough.

Table A.2 in Appendix A shows the details of the sites.

Maps showing the location of the monitoring sites are provided in Appendix D. Further details on Quality Assurance/Quality Control (QA/QC) for the diffusion tubes, including bias adjustments and any other adjustments applied (e.g. “annualisation” and/or distance correction), are included in Appendix C.

3.2 Individual Pollutants

The air quality monitoring results presented in this section are, where relevant, adjusted for bias, “annualisation” and distance correction. Further details on adjustments are provided in Appendix C.

3.2.1 Nitrogen Dioxide (NO_2)

Table A.3 in Appendix A compares the ratified and adjusted monitored NO_2 annual mean concentrations for the past 5 years with the air quality objective of 40µg/m^3. For diffusion tubes, the full 2018 dataset of monthly mean values is provided in Appendix B. There have been no exceedances of the air quality objectives .

3.2.2 Particulate Matter (PM_{10})

Test Valley Borough council does not monitor for $PM_{10.}$

Particulate Matter ($PM_{2.5}$)

Test Valley Borough council does not monitor for $PM_{2.5}$

Sulphur Dioxide (SO_2)

Test Valley Borough council does not monitor for SO_2

Appendix A: Monitoring Results

Table A.1 – Details of Automatic Monitoring Sites

Test Valley Borough Council does not have any Automatic Monitoring Sites

Table A.2 – Details of Non-Automatic Monitoring Sites

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
Rom1	Station Road	Urban Background	435382	121377	NO_2	NO	0	N/A	NO	1.5
Rom2	Cherville Street	Roadside	435135	121461	NO_2	NO	0	1	NO	2
Rom3	Bell Street	Roadside	435205	121147	NO_2	NO	0	1.3	NO	2
Rom5A	Palmerton Street (West)	Roadside	435474	121089	NO_2	NO	3	1.1	NO	2
Rom7	Parmerston Street (East)	Roadside	435480	121103	NO_2	NO	0	2.3	NO	2
Rom8	Plaza Roundabout	Roadside	435867	121277	NO_2	NO	-2	4.5	NO	1.8
Rom9	Alma Road (South)	Roadside	435597	121244	NO_2	NO	0	2	NO	2
Rom10	Alma Road (Middle)	Roadside	435630	121403	NO_2	NO	6	2.6	NO	2
Chil12	Chilworth Road	Roadside	441760	118091	NO_2	NO	18	1	NO	2
Chil13	Winchester Road, Chilworth	Other	442137	117670	NO_2	NO	0	24	NO	2
Chil14	Bracken Place	Other	442264	117625	NO_2	NO	0	23	NO	1.5
And15	Weyhill Road	Other	435923	145408	NO_2	NO	0	14	NO	1.5
And19	Alexandra Road	Urban Background	435848	145599	NO_2	NO	12	N/A	NO	1.5
And20	Humberstone Road (East)	Kerbside	436499	144935	NO_2	NO	6	1.8	NO	2

And22	Humberstone Road (West)	Urban Background	436362	144854	NO_2	NO	8.5	N/A	NO	2
And23	Barlows Lane (North)	Urban Background	435865	144430	NO_2	NO	0	N/A	NO	1.5
And25	Barlows Lane (South)	Roadside	435741	144232	NO_2	NO	4	1.8	NO	2.4

Highway Tubes (1 year project)

Site ID	Site Name	Site Type	X OS Grid Ref	Y OS Grid Ref	Pollutants Monitored	In AQMA?	Distance to Relevant Exposure (m) (1)	Distance to kerb of nearest road (m) (2)	Tube collocated with a Continuous Analyser?	Height (m)
49	Chilworth Drove	Roadside	440593	117865	NO_2	No	15	2	No	1.75
50	Hadrian Way	Roadside	441482	117472	NO_2	No	10	2	No	2
9	Green Lane	Roadside	441873	118164	NO_2	No	35	3	No	2
38	Chilworth Road	Roadside	441918	118051	NO_2	No	2	3	No	2
47	Hadrian Way (2)	Roadside	441495	117497	NO_2	No	35	2	No	2
48	Chilworth Drive (2)	Roadside	440690	118054	NO_2	No	50+	2	No	2

Notes:

(1) 0m if the monitoring site is at a location of exposure (e.g. installed on/adjacent to the façade of a residential property).

(2) N/A if not applicable.

Table A.3 – Annual Mean NO_2 Monitoring Results

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) (1)	Valid Data Capture 2018 (%) (2)	NO_2 Annual Mean Concentration (µg/m^3) (3)				
					2014	2015	2016	2017	2018
Rom1	Urban Background	Diffusion Tube	100	92	15.6	14.9	14.4	13.4	12.9
Rom2	Roadside	Diffusion Tube	100	92	15.8	14.2	15.1	14.1	14.5
Rom3	Roadside	Diffusion Tube	100	100	20.9	20.1	18.4	16.8	14.7
Rom5A	Roadside	Diffusion Tube	100	100	35	34.2	33.5	30.7	29.3
Rom7	Roadside	Diffusion Tube	100	100	32.1	27	28.5	26.3	26.6
Rom8	Roadside	Diffusion Tube	100	100	35.2	28.1	28	25.2	23.5
Rom9	Roadside	Diffusion Tube	98	92	29.4	26.5	26.5	26.4	26.6
Rom10	Roadside	Diffusion Tube	100	100	28.6	27.1	27.8	25.7	25.9
Chil12	Roadside	Diffusion Tube	100	100	37.7	30.9	24.5	33.4	30.0
Chil13	Other	Diffusion Tube	100	100	24.9	23.5	23.3	21	21.7
Chil14	Other	Diffusion Tube	100	100	28	25.5	25.8	25	24.0
And15	Other	Diffusion Tube	100	100	18.2	17	17.2	16	15.3
And19	Urban Background	Diffusion Tube	98	92	13.8	12.8	14	12.9	12.4
And20	Kerbside	Diffusion Tube	100	100	19.2	17.7	18.8	15.7	15.5
And22	Urban Background	Diffusion Tube	96	84	13.6	12.3	13.4	11.8	12.8
And23	Urban Background	Diffusion Tube	100	100	14.9	13.4	14.5	12.2	11.9
And25	Roadside	Diffusion Tube	100	100	16.6	16.1	14.9	14	13.5

Site ID	Site Type	Monitoring Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2017 (%) [2]	NO_2 Annual Mean Concentration ($\mu g/m^3$) [3]				
					2014	2015	2016	2017	2018
9a	Roadside	Diffusion Tube	50	-	-	-	-	-	22.4
9b	Roadside	Diffusion Tube	50	-	-	-	-	-	22.5
9c	Roadside	Diffusion Tube	50	-	-	-	-	-	22.5
38a	Roadside	Diffusion Tube	50	-	-	-	-	-	30.1
38b	Roadside	Diffusion Tube	50	-	-	-	-	-	29.8
38c	Roadside	Diffusion Tube	50	-	-	-	-	-	30.0
47a	Roadside	Diffusion Tube	50	-	-	-	-	-	26.3
47b	Roadside	Diffusion Tube	50	-	-	-	-	-	25.6
47c	Roadside	Diffusion Tube	50	-	-	-	-	-	26.3
48a	Roadside	Diffusion Tube	50	-	-	-	-	-	20.3
48b	Roadside	Diffusion Tube	50	-	-	-	-	-	20.9
48c	Roadside	Diffusion Tube	50	-	-	-	-	-	20.5
49a	Roadside	Diffusion Tube	50	-	-	-	-	-	21.2
49b	Roadside	Diffusion Tube	50	-	-	-	-	-	20.5
49c	Roadside	Diffusion Tube	50	-	-	-	-	-	21.1
50a	Roadside	Diffusion Tube	50	-	-	-	-	-	23.8
50b	Roadside	Diffusion Tube	50	-	-	-	-	-	26.0
50c	Roadside	Diffusion Tube	50	-	-	-	-	-	26.3

☒ **Diffusion tube data has been bias corrected**

☒ **Annualisation has been conducted where data capture is <75%**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

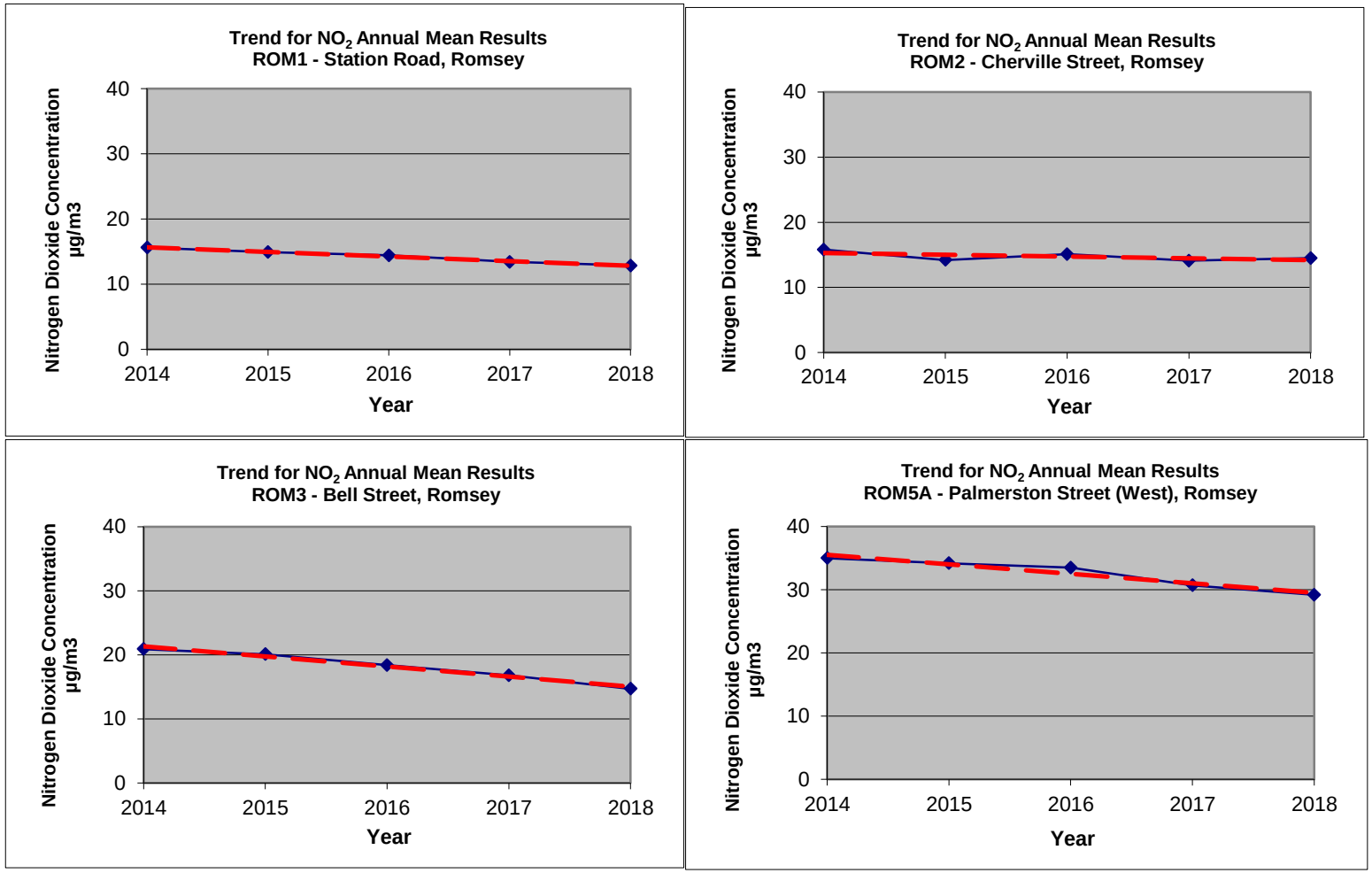
NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined.**

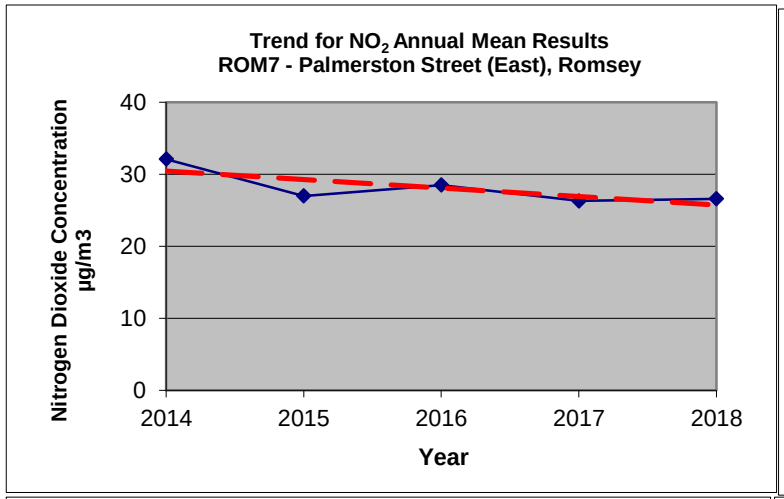
(1) Data capture for the monitoring period, in cases where monitoring was only carried out for part of the year.

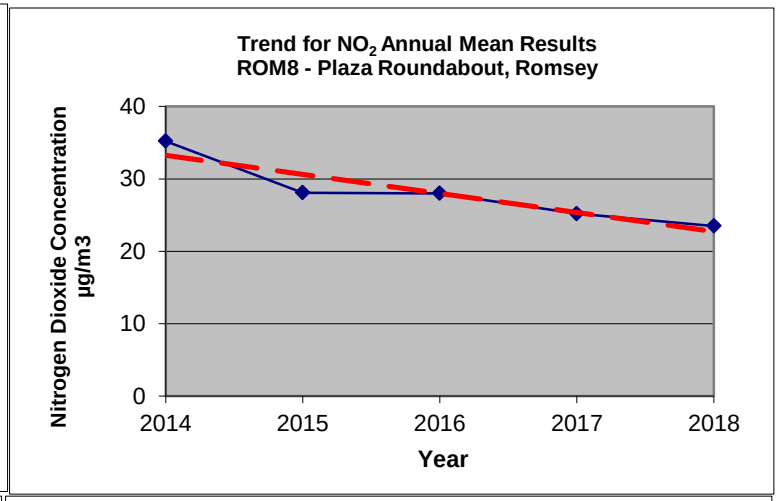
(2) Data capture for the full calendar year (e.g. if monitoring was carried out for 6 months, the maximum data capture for the full calendar year is 50%).

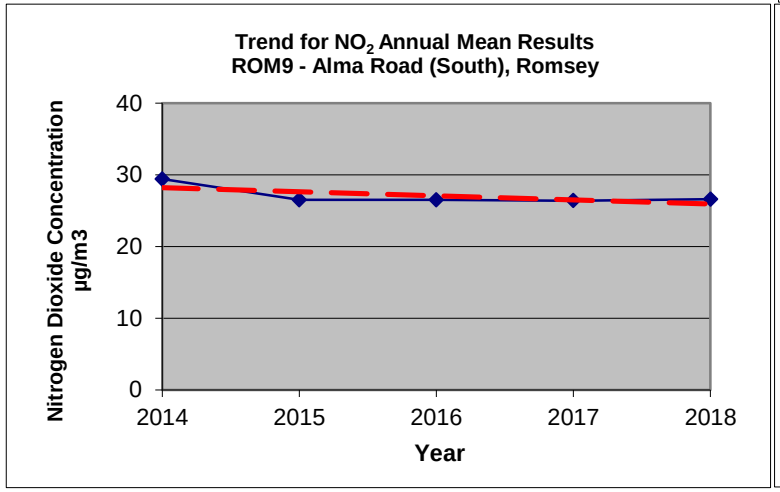
(3) Means for diffusion tubes have been corrected for bias. All means have been "annualised" as per Boxes 7.9 and 7.10 in LAQM.TG16 if valid data capture for the full calendar year is less than 75%. See Appendix C for details.

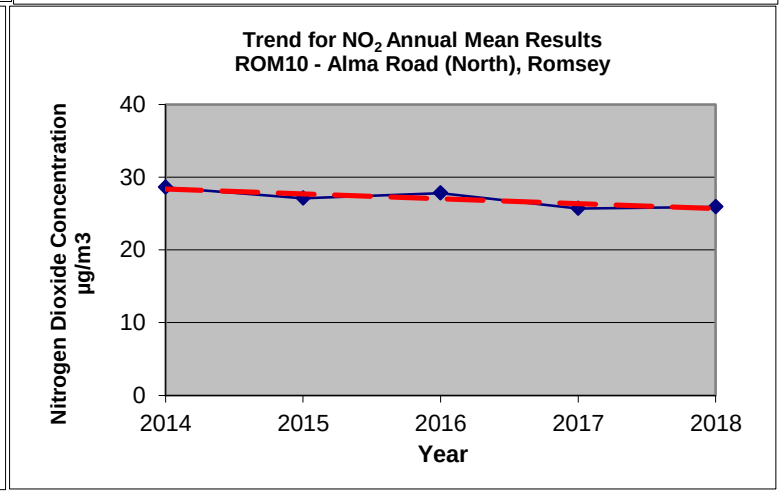
Figure A.1 – Trends in Annual Mean NO_2 Concentrations

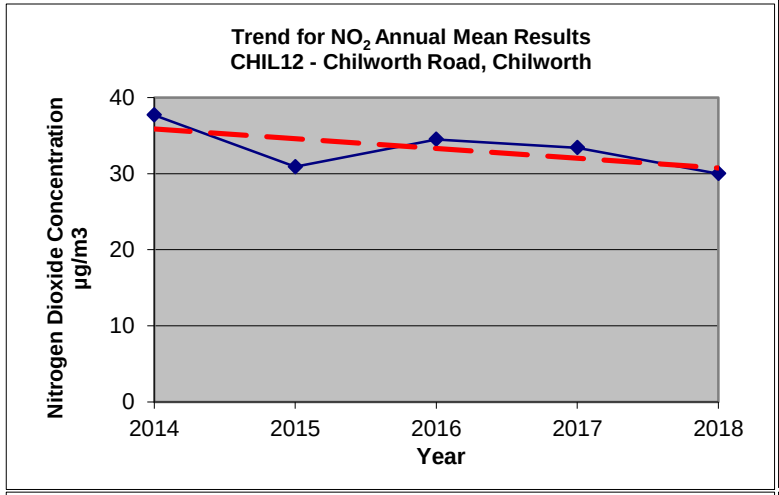


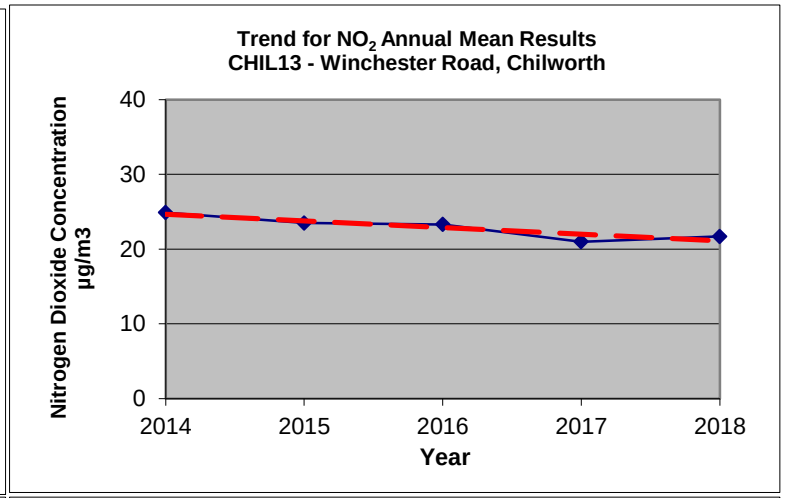

Trend for NO2 Annual Mean Results
ROM7 - Palmerston Street (East), Romsey
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

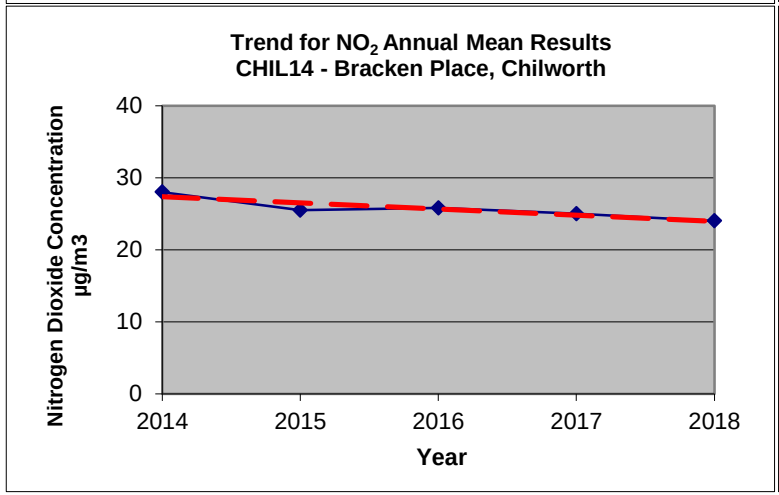

Trend for NO2 Annual Mean Results
ROM8 - Plaza Roundabout, Romsey
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

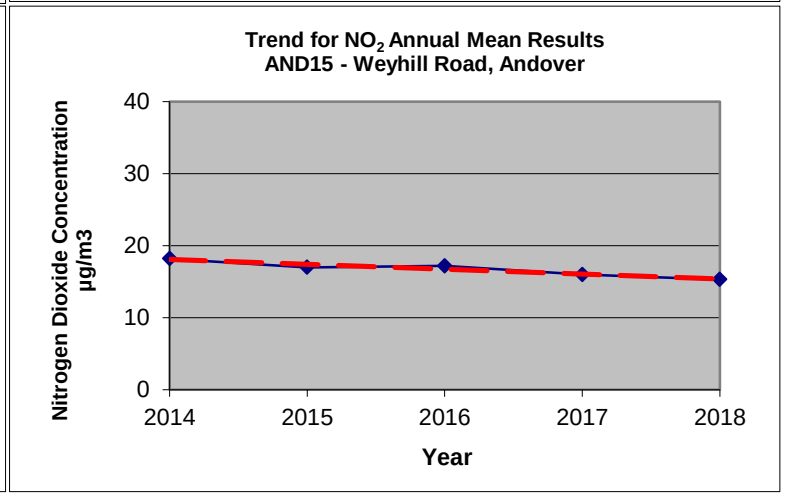

Trend for NO2 Annual Mean Results
ROM9 - Alma Road (South), Romsey
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

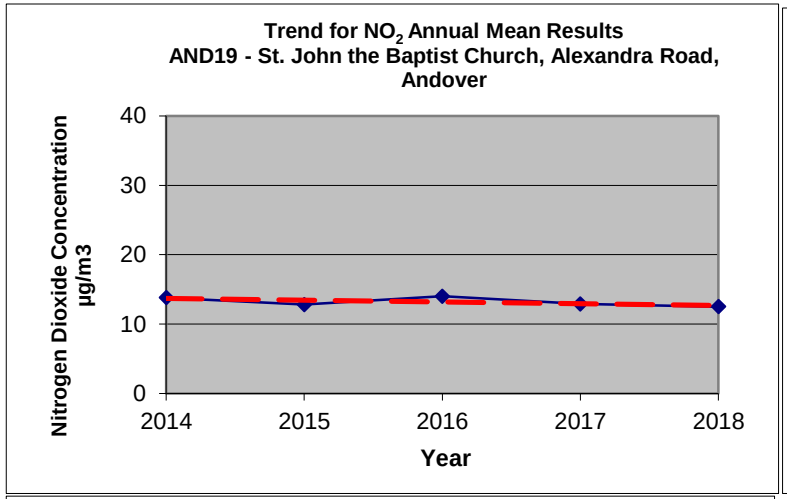

Trend for NO2 Annual Mean Results
ROM10 - Alma Road (North), Romsey
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

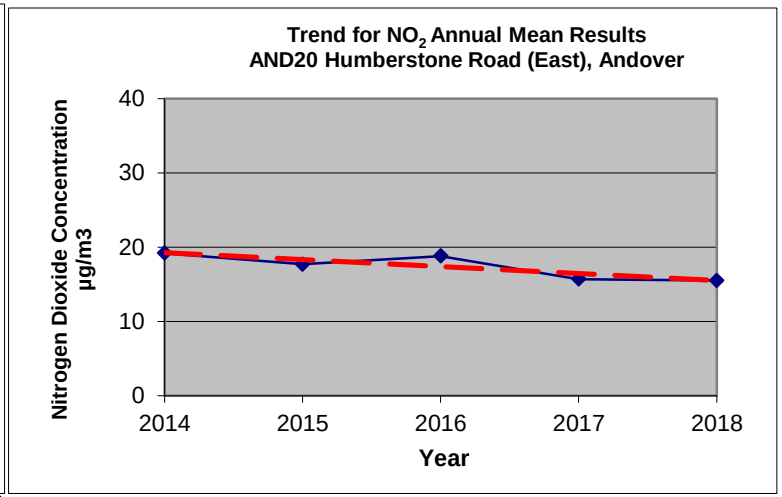

Trend for NO2 Annual Mean Results
CHIL12 - Chilworth Road, Chilworth
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

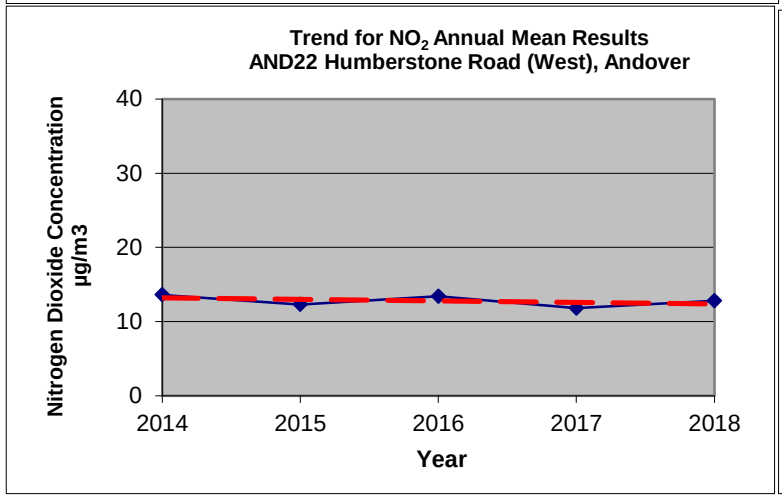

Trend for NO2 Annual Mean Results
CHIL13 - Winchester Road, Chilworth
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

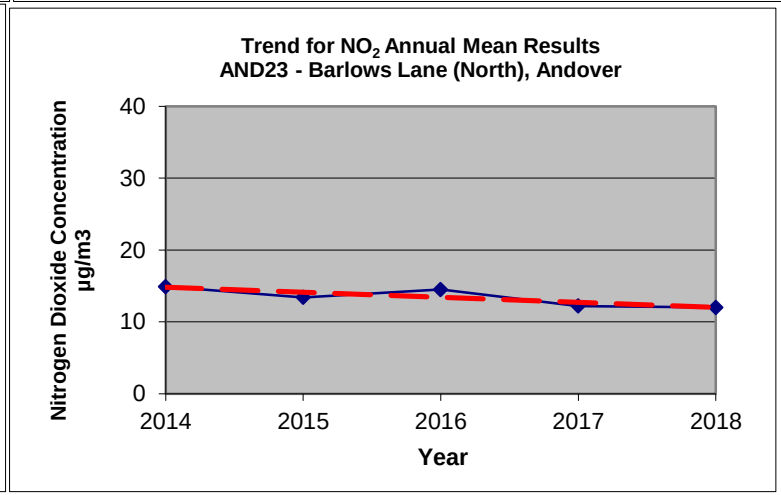

Trend for NO2 Annual Mean Results
CHIL14 - Bracken Place, Chilworth
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

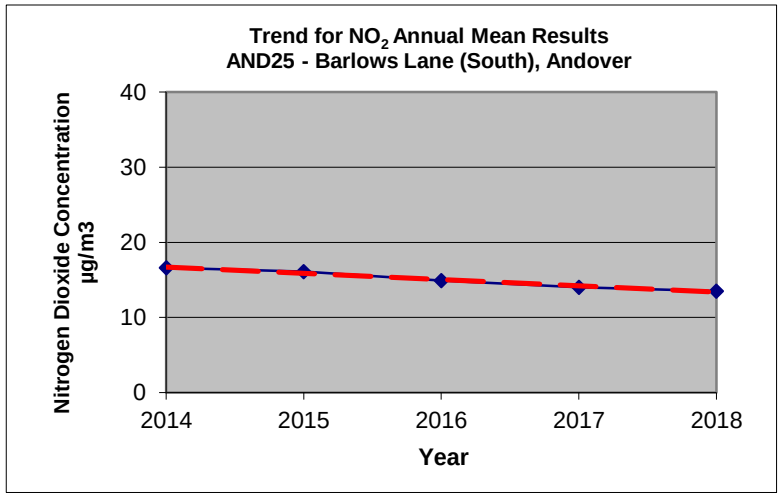

Trend for NO2 Annual Mean Results
AND15 - Weyhill Road, Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year


Trend for NO2 Annual Mean Results
AND19 - St. John the Baptist Church, Alexandra Road, Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year


Trend for NO2 Annual Mean Results
AND20 Humberstone Road (East), Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year


Trend for NO2 Annual Mean Results
AND22 Humberstone Road (West), Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year


Trend for NO2 Annual Mean Results
AND23 - Barlows Lane (North), Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year


Trend for NO2 Annual Mean Results
AND25 - Barlows Lane (South), Andover
Nitrogen Dioxide Concentration µg/m3
40
30
20
10
0
2014
2015
2016
2017
2018
Year

Appendix B: Full Monthly Diffusion Tube Results for 2018

Table B.1 – NO_2 Monthly Diffusion Tube Results - 2018

Site ID	NO_2 Mean Concentrations (µg/m^3)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean		
													Raw Data	Bias Adjusted (factor) and Annualised (1)	Distance Corrected to Nearest Exposure (2)
Rom1	21.1	24.6	x	14	16.1	14	12.4	10.8	14.6	17.3	21	17.7	16.69	12.9	**N/A**
Rom2	20.3	21.7	25.7	18.6	18.1	17.2	16.1	13.6	16.5	16.8	23.1	x	18.88	14.5	14.5
Rom3	20	20.9	25.3	1.2	20.2	19.8	15.4	17.3	20	19.3	24.6	25.7	19.14	14.7	14.7
Rom5A	48.1	38.1	50.7	38.4	33.4	29	40.8	37	26.8	32.5	38.1	43	37.99	29.3	29.3
Rom7	36.2	39.3	46.9	35.5	34.6	33.4	32.1	26.9	29.6	27.8	35.2	36.6	34.51	26.6	26.6
Rom8	39.2	33.5	35.9	31.3	23.9	25.3	31.6	25.4	30.8	25.6	32.1	31.7	30.53	23.5	23.5
Rom9	41.6	37.4	39.8	31.4	33	28.8	30.5	33.8	36.9	34.6	32.3	34.6	34.56	26.6	26.6
Rom10	41.6	37.4	42.1	31.4	33	32.2	30.9	25.8	30.5	33.4	34.7	30	33.58	25.9	25.9
Chil12	46.4	44.6	44.4	45.2	41	35.4	39.6	28.4	31	26.7	45	39.8	38.96	30.0	30.0
Chil13	30.8	31.9	35.2	30.7	26.1	25.6	24.8	20.2	23.8	27.2	36.6	25.6	28.21	21.7	21.7
Chil14	33.8	45.3	32	29.5	33.5	35.4	30.9	26.4	30	32.6	16.1	28.3	31.15	24.0	**N/A**
And15	25.1	26.1	29.1	16.6	20.3	16.2	15.7	14.4	6.3	20	22.1	26.3	19.85	15.3	15.3
And19	20	19.4	21.9	13.8	12.6	11.7	11.3	10.7	13.7	17.2	20.8	20.4	16.13	12.4	12.4
And20	24.8	29	20.2	19.7	19.5	17.6	13.4	14	17.7	21.7	22.9	20.9	20.12	15.5	15.5
And22	21.4	21.7	19.2	14.3	x	x	11.5	10.3	14.2	17.1	17	19.2	16.59	12.8	**N/A**

And23	18.2	21.5	18.9	14.5	12.6	11.7	12.6	11.7	13.7	15.3	17.7	17.9	15.53	11.9	11.9
And25	19.3	20.3	21.3	18	16.6	14.5	14.9	13.8	16.2	15.1	19	20.8	17.48	13.5	**N/A**

Highways Tubes

Site ID	NO_2 Mean Concentrations ($\mu g/m^3$)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean		
													Raw Data	Bias Adjusted (factor) and Annualised (1)	Distance Corrected to Nearest Exposure (2)
9a	20.0	18.4	23.5	19.9	19.0	23.6	31.8	20.9	22.4	33.4	15.7	20.6	22.4		
9b	21.8	18.1	24.7	19.0	18.2	24.4	27.3	21.6	22.6	32.4	18.5	21.8	22.5		
9c	20.4	17.2	24.3	20.5	19.0	23.4	28.1	17.9	29.1	32.2	16.9	21.0	22.5		
38a	35.9	32.6	27.8	27.9	26.6	33.2	28.3	29.6	33.3	28.5	27.7	29.9	30.1		
38b	36.5	31.3	28.8	27.0	27.6	32.3	27.3	27.9	31.1	28.3	29.6	29.6	29.8		
38c	36.1	32.3	28.2	28.6	28.5	33.9	25.1	30.5	33.3	24.2	29.5	29.5	30.0		
47a	23.4	21.8	28.8	24.9	24.8	27.1	28.3	26.8	31.2	31.9	20.5	26.5	26.3		
47b	22.9	22.1	30.0	26.2	22.7	26.1	29.9	17.5	29.1	34.0	20.2	26.2	25.6		
47c	23.2	22.0	28.7	25.0	24.9	27.4	30.2	25.2	27.0	36.9	20.9	24.4	26.3		
48a	18.5	16.9	24.4	18.3	17.6	19.3	24.9	17.0	22.0	30.0	19.2	16.0	20.3		
48b	17.5	17.2	24.0	19.9	19.2	19.7	25.3	21.1	23.0	29.7	18.7	15.6	20.9		
48c	17.3	16.5	Missing	20.0	18.0	19.5	26.2	20.6	23.0	29.9	19.1	15.8	20.5		
49a	25.4	26.5	18.6	16.4	17.8	20.5	18.6	20.4	31.0	19.8	16.7	22.1	21.2		
49b	25.7	25.7	18.4	17.1	18.2	21.9	22.1	17.3	21.0	20.1	16.9	21.3	20.5		

49c	26.4	26.4	18.0	17.3	17.7	24.6	18.4	20.1	22.0	21.9	17.1	22.8	21.1		
50a	29.4	26.8	23.5	4.3	Missing	30.7	24.7	24.0	28.0	27.6	23.4	19.7	23.8		
50b	30.4	26.8	23.2	Missing	Missing	31.3	26.9	22.1	24.6	30.1	24.4	20.2	26.0		
50c	30.0	29.2	23.8	Missing	Missing	26.7	29.0	22.9	27.9	28.9	23.3	20.8	26.3		

☐ **Local bias adjustment factor used**

☒ **National bias adjustment factor used**

☐ **Annualisation has been conducted where data capture is <75%**

☒ **Where applicable, data has been distance corrected for relevant exposure**

Notes:

Exceedances of the NO_2 annual mean objective of 40µg/m^3 are shown in **bold**.

NO_2 annual means exceeding 60µg/m^3, indicating a potential exceedance of the NO_2 1-hour mean objective are shown in **bold and underlined.**

(1) See Appendix C for details on bias adjustment and annualisation.

(2) Distance corrected to nearest relevant public exposure.

Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC

New or Changed Sources of Pollution

Test Valley Borough Council has not identified any significant changes to current sources of pollution or identified any new significant sources of pollution since the publication of the Council's 2018 Air Quality Annual Status Report.

Dispersion Modelling

Test Valley Borough Council is involved in the Partnership for South Hampshire (PUSH Partnership) with 11 Local Authorities modelling for NOx, PM_{10}, $PM_{2.5}$ and NH_3. The Authority is also in partnership working with the Highways Agency on a one year data gathering exercise for NO_x around the M27.

Evidence Gathering

Test Valley Borough Council is currently not collecting evidence in support of measures to prepare an Air Quality Action Plan.

Quality Assurance/Quality Control of diffusion tube monitoring

Test Valley Borough Council can confirm that as far as reasonably practicable, all 23 diffusion tubes are located in accordance with the guidance set out in the February 2008 AEA Energy & Environment report.

A copy of the "Summary of Precision Results for Nitrogen Dioxide Diffusion Tube Collocation Studies, by Laboratory" was downloaded from:

https://laqm.defra.gov.uk/assets/tubeprecision2016version0317finalfullv2.pdf.

Of the 27 studies which used ESG (50% TEA in Acetone) diffusion tubes during 2016, 26 studies indicated 'Good' precision and 1 indicating 'Poor' precision.

Diffusion Tube Bias Adjustment Factors

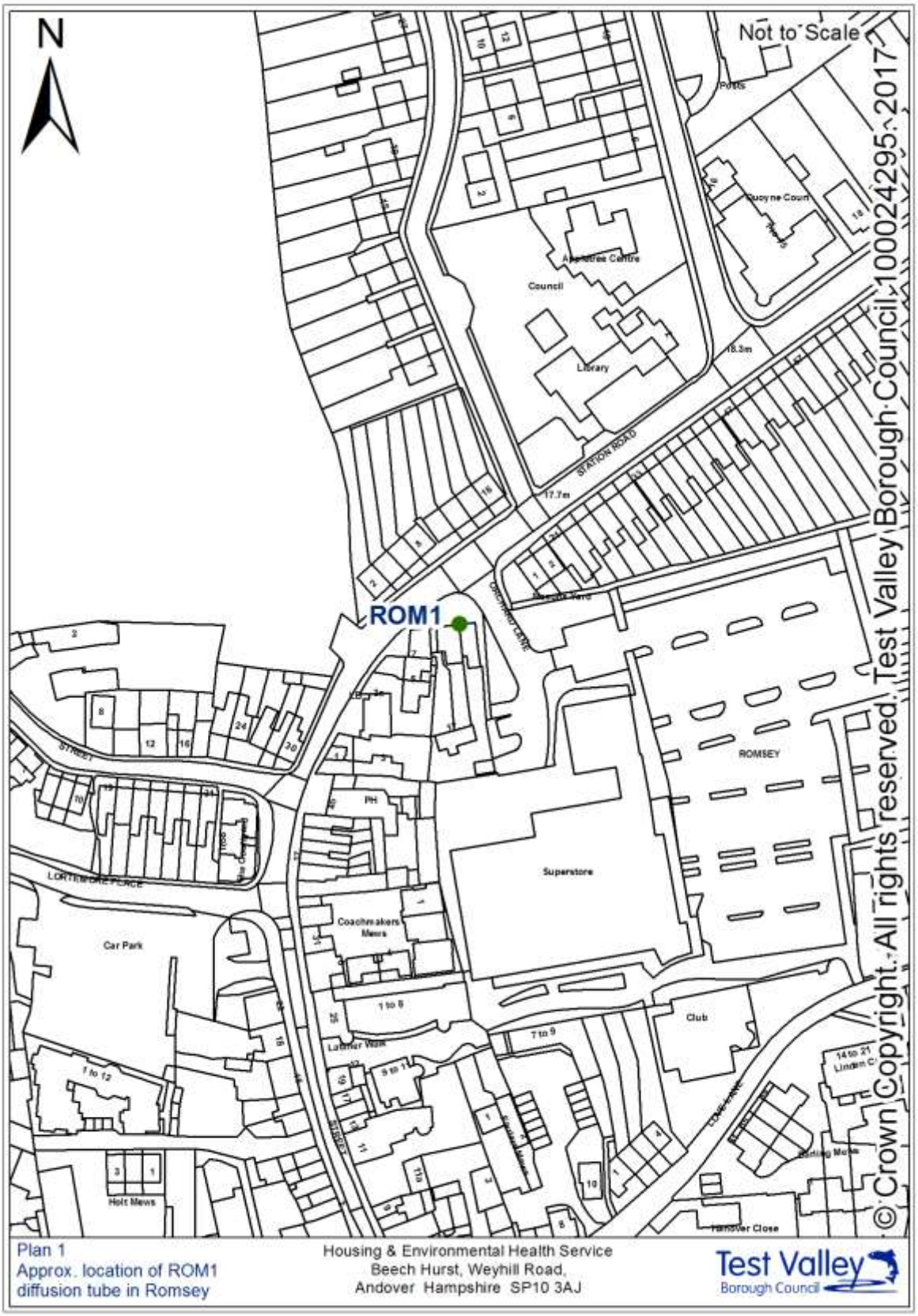
The diffusion tubes used by Test Valley Borough Council are supplied and analysed (50% TEA in Acetone) by Environmental Scientifics Group (ESG) laboratories, Didcot, Oxfordshire. The bias adjustment factor of **0.77** for our 2018 diffusion tubes was obtained from the following website:

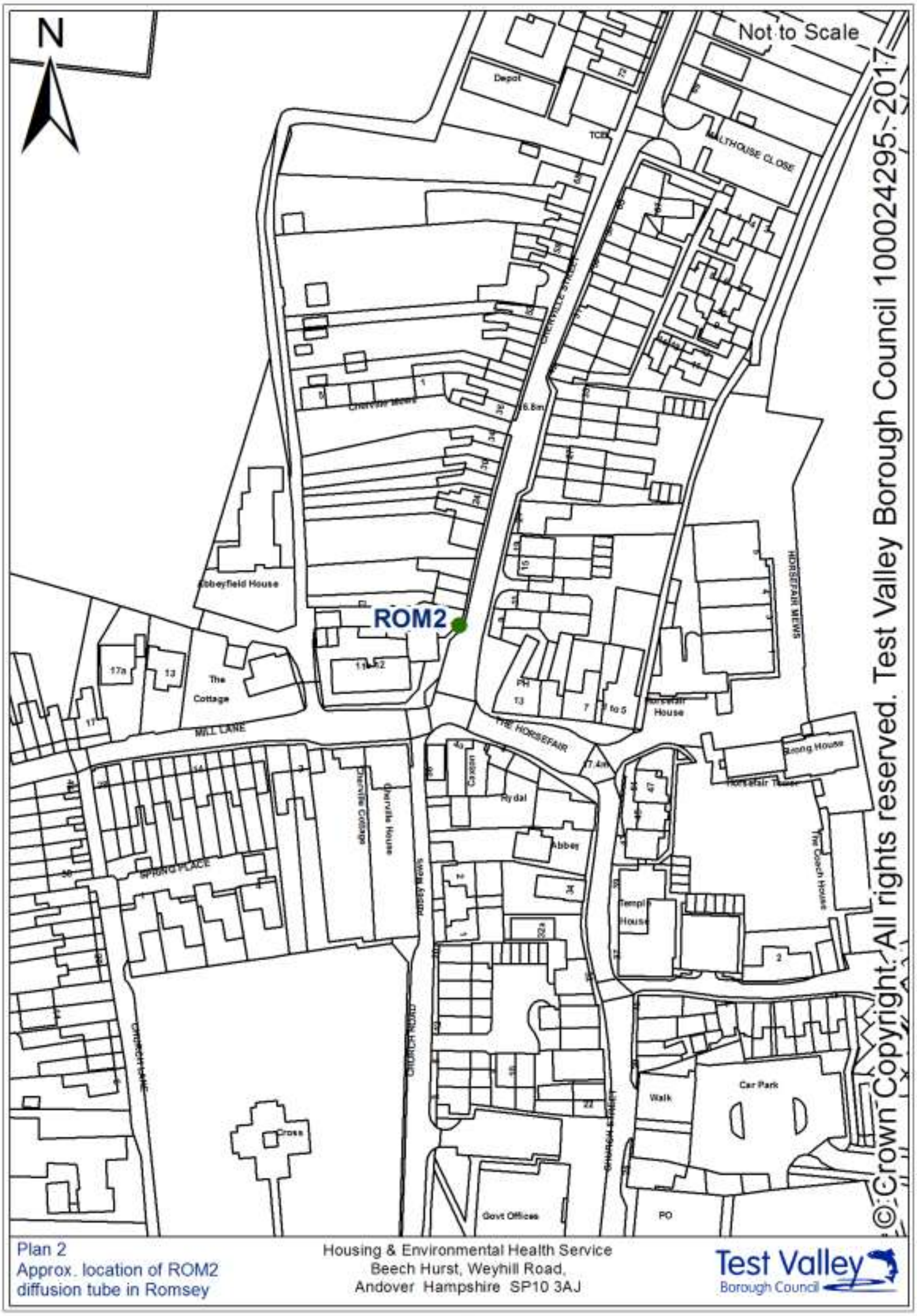
https://laqm.defra.gov.uk/assets/databasediffusiontubebiasfactorsv0317v2.xls.

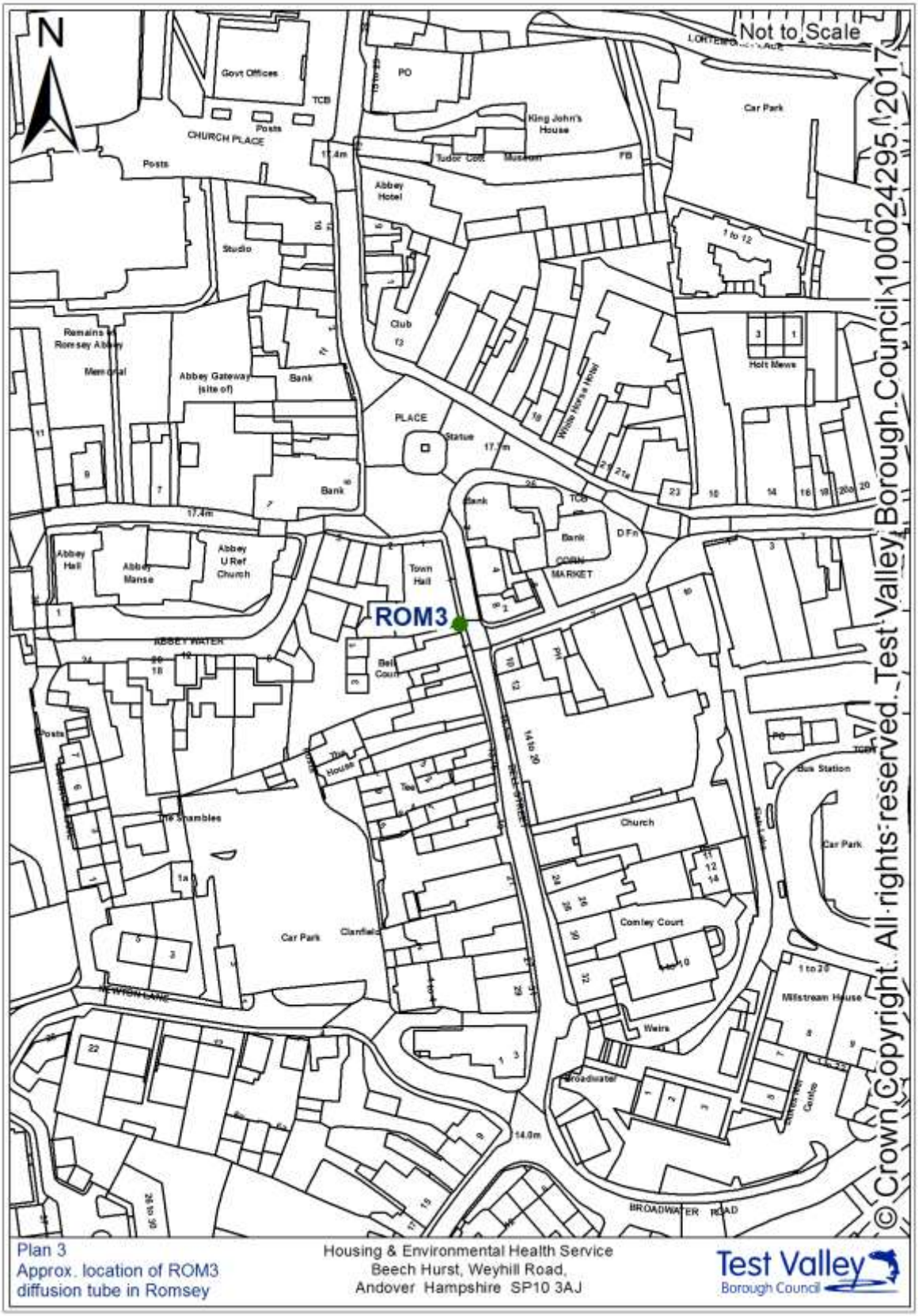
NO_2 Fall-off with Distance Calculator

Three NO_2 tube locations (ROM5A, ROM9 AND ROM10) were subject to distance correction as there are adjacent receptors (i.e. property façades) to these monitoring locations. Two further tube locations; CHIL12 and CHIL14 were not corrected as they are both influenced by 2 busy roads (Reference: Limitation 7). The remaining diffusion tube locations are representative of public exposure.

Appendix D: Map(s) of Monitoring Locations 2018 and 2019




N
Not to Scale
© Crown Copyright. All rights reserved. Test Valley Borough Council 100024295 2017
ROM2
MILL LANE
THE HORSEFAIR
SPRING PLACE
CHURCH ROAD
CHURCH STREET
HORSEFAIR MEWS
MALTHOUSE CLOSE
Car Park
Govt Offices
Walk
PO
Cross
Abbeyfield House
The Cottage
Depot
Plan 2
Approx. location of ROM2
diffusion tube in Romsey
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
ROM3
Govt Offices
CHURCH PLACE
Posts
PO
King John's House
Car Park
Abbey Hotel
Studio
Remains of Romsey Abbey
Memorial
Abbey Gateway (site of)
Bank
PLACE
Statue
Holt Mews
Abbey Hall
Abbey Manse
Abbey U Ref Church
Town Hall
CORN MARKET
ABBEY WATER
Bell Court
The Shambles
Church
Bus Station
Car Park
Conley Court
Millstream House
Weirs
Broadwater
Clarefield
BROADWATER ROAD
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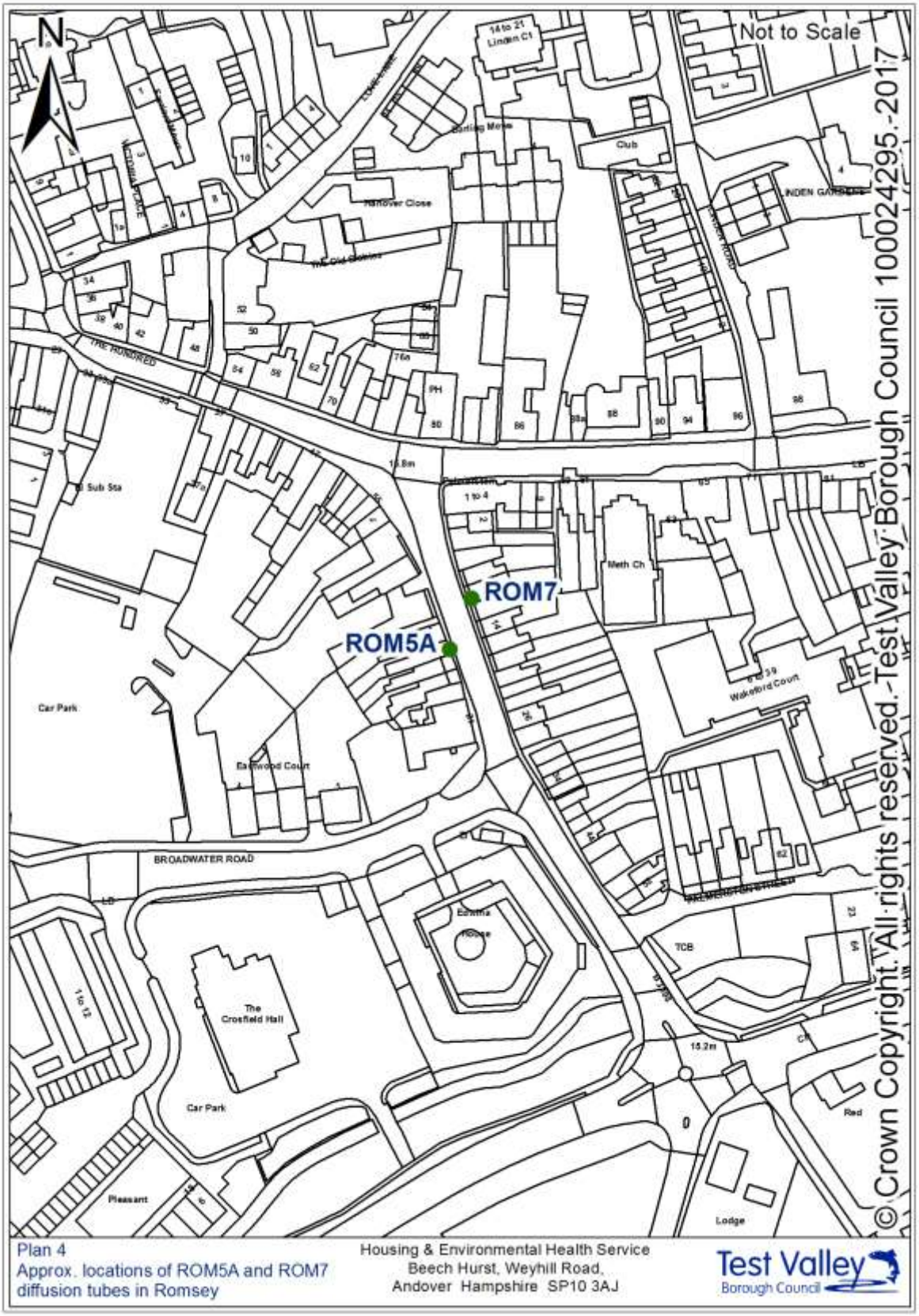
Plan 3
Approx. location of ROM3 diffusion tube in Romsey
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
ROM7
ROM5A
BROADWATER ROAD
Car Park
Eastwood Court
Wakeford Court
The Crossfield Hall
Car Park
Pleasant
Lodge
Meth Ch
Club
Sub Sta
Plan 4
Approx. locations of ROM5A and ROM7 diffusion tubes in Romsey
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council
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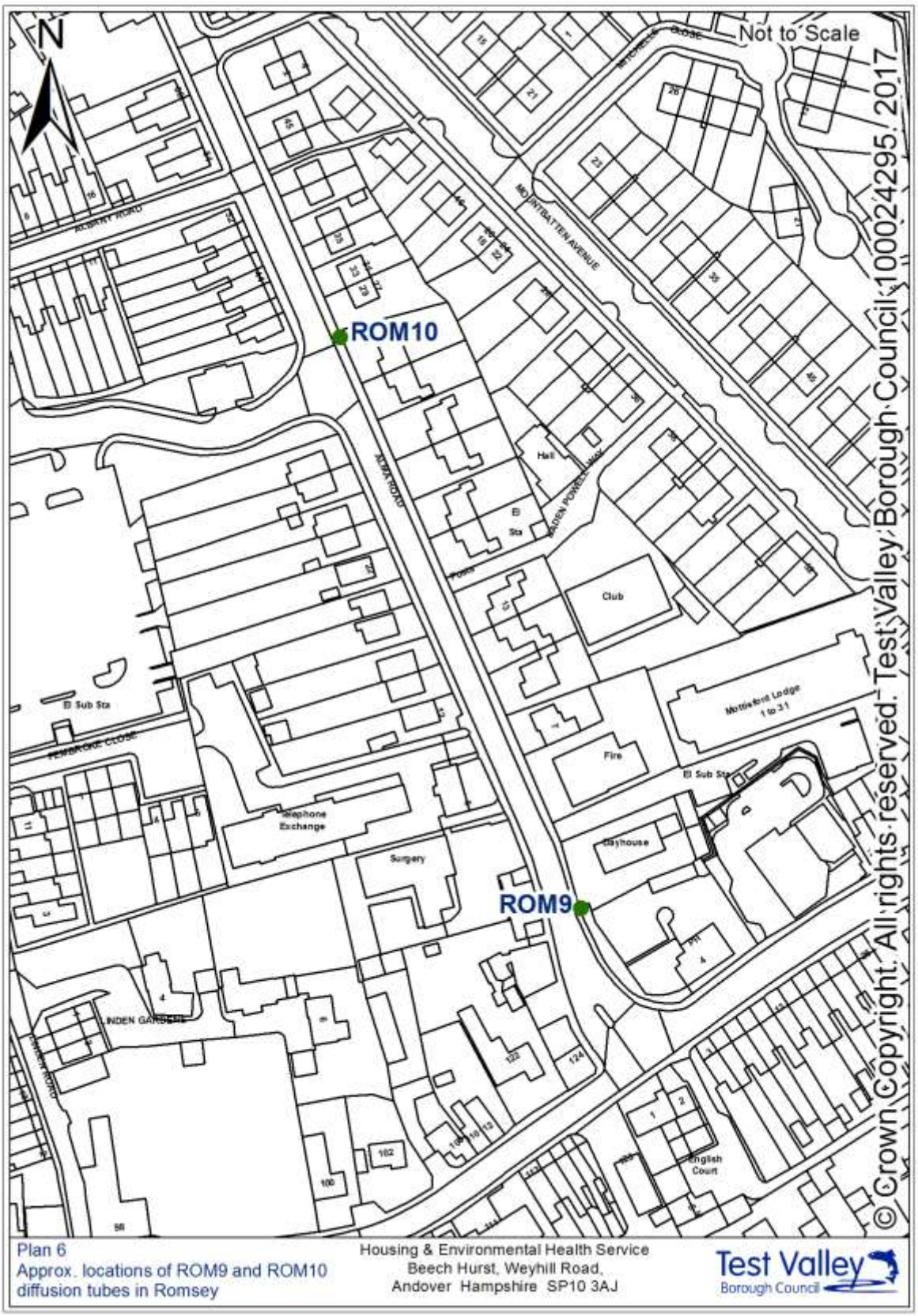
N
Not to Scale
ROM8
WINCHESTER ROAD
SOUTHAMPTON ROAD
The Plaza Theatre
Plaza Mews
16.8m
House
THE HARRAGE
© Crown Copyright. All rights reserved. Test Valley Borough Council 100024295. 2017
Plan 5
Approx. location of ROM8 diffusion tube in Romsey
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
ROM10
ROM9
ROMSEY ROAD
MOUNTBATTEN AVENUE
ALDEN POWELL WAY
ALBANY ROAD
Club
Fire
El Sub Sta
Telephone Exchange
Surgery
Mottisford Lodge 1 to 31
English Court
LINDEN GARDENS
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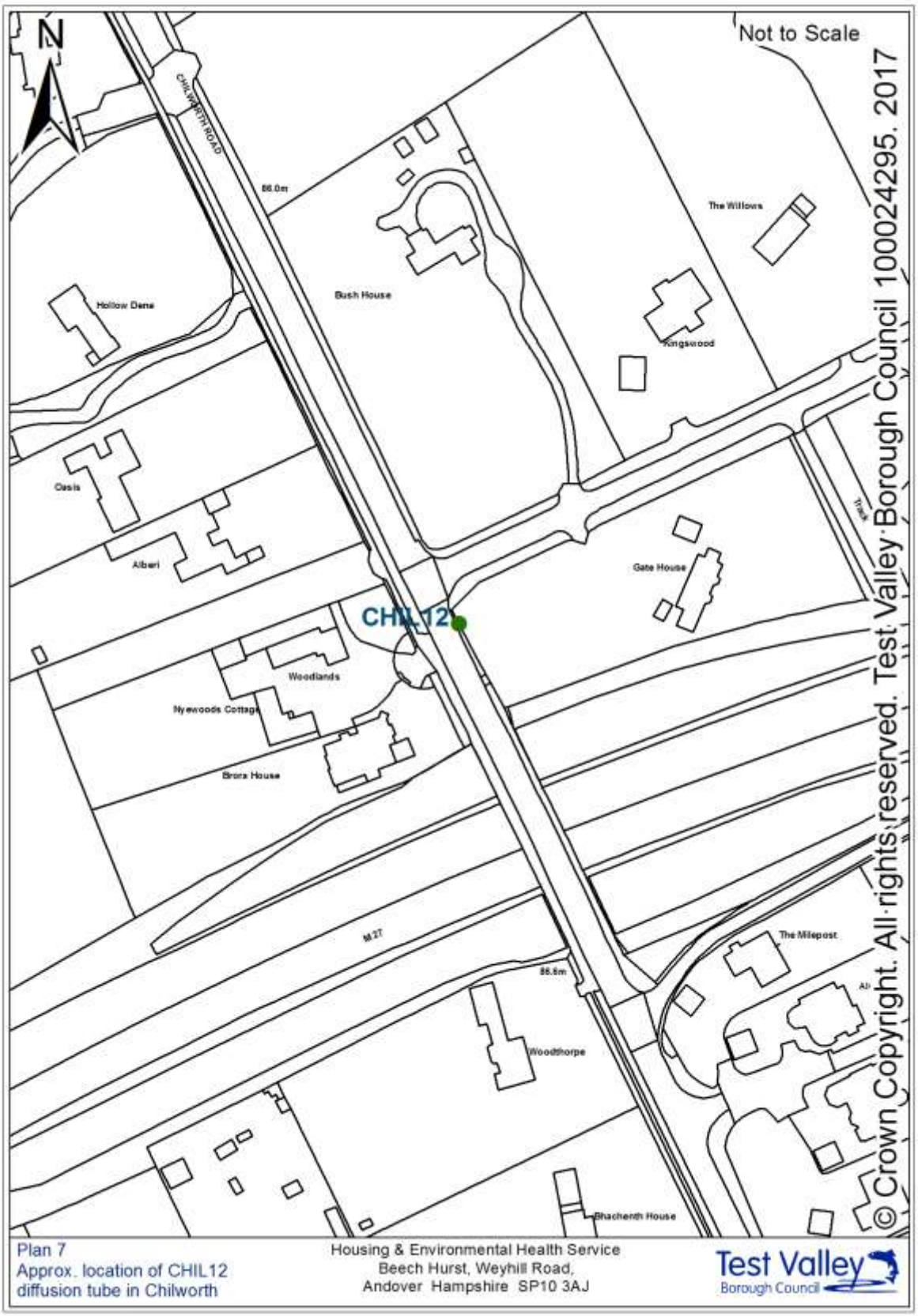
Plan 6
Approx. locations of ROM9 and ROM10 diffusion tubes in Romsey
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
CHILWORTH ROAD
86.0m
Bush House
The Willows
Kingswood
Hollow Dene
Oasis
Alberi
Gate House
CHIL12
Woodlands
Nyewoods Cottage
Brora House
M27
The Milepost
86.6m
Woodthorpe
Bhacherth House
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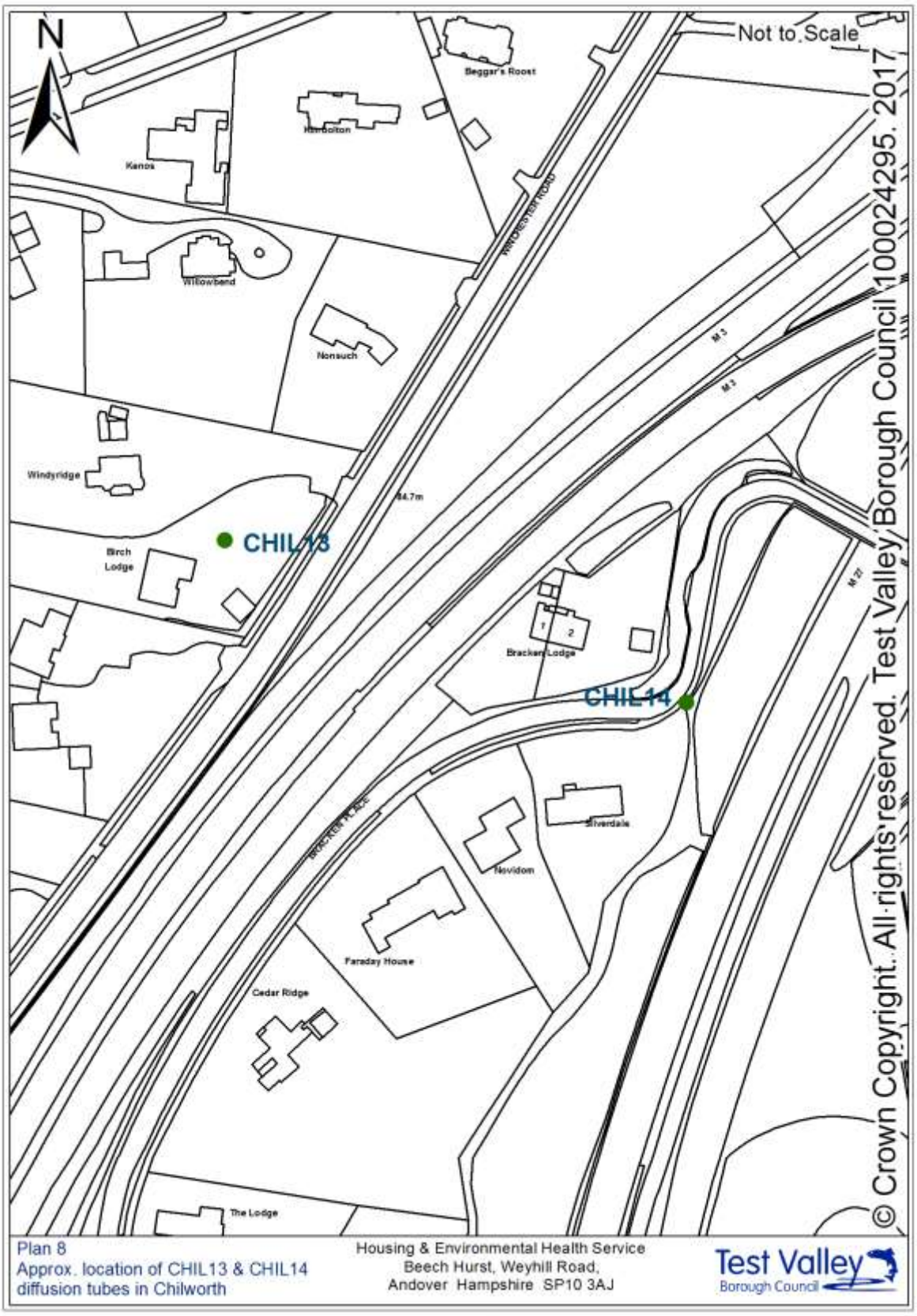
Plan 7
Approx. location of CHIL12 diffusion tube in Chilworth
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
Beggar's Roost
Hambolton
Kanos
Willowbend
Nonsuch
Windyridge
Birch Lodge
CHIL13
CHIL14
Bracken Lodge
Silverdale
Novidon
Faraday House
Cedar Ridge
The Lodge
WINCHESTER ROAD
BRACKEN PLACE
84.7m
M3
M27
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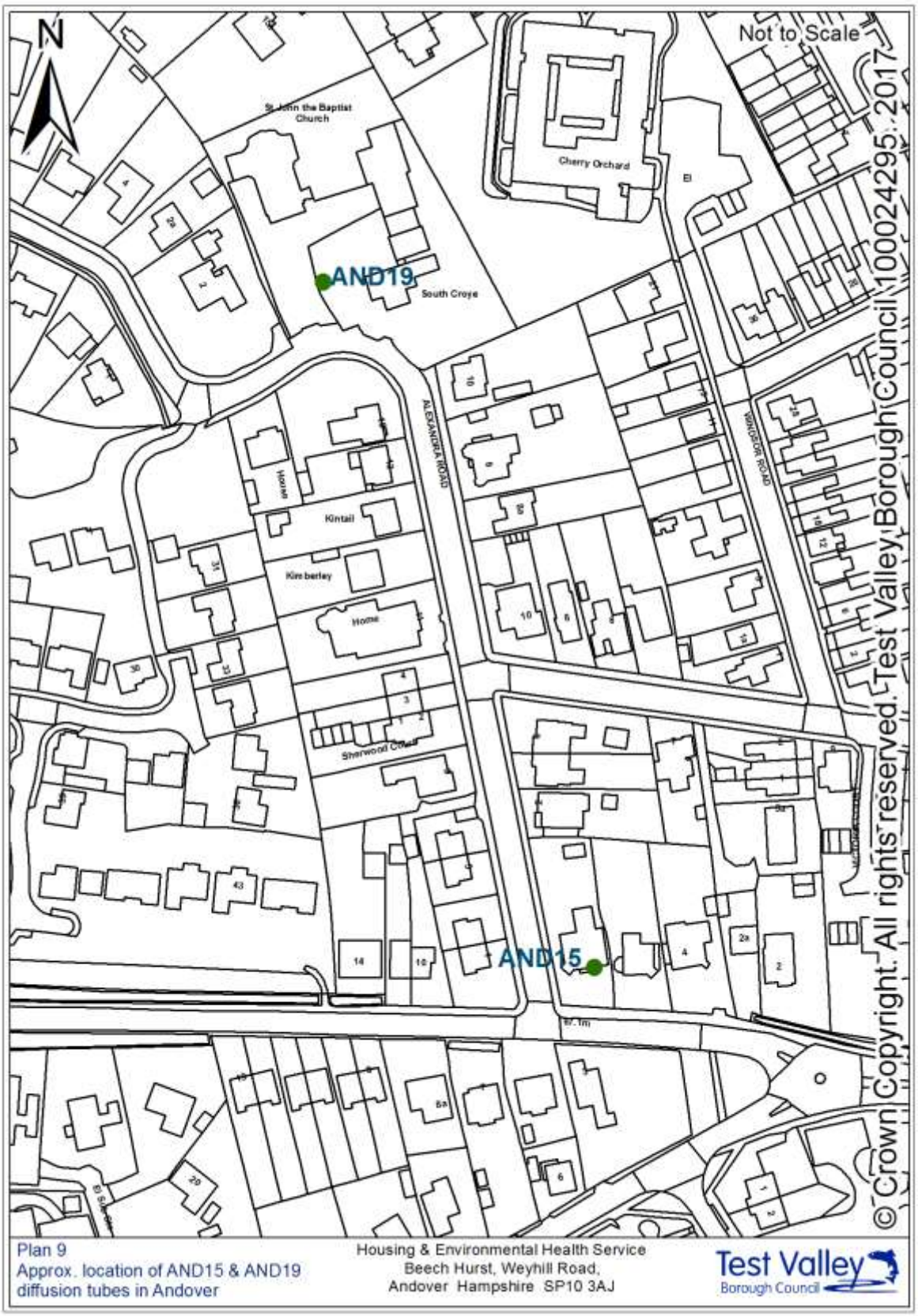
Plan 8
Approx. location of CHIL13 & CHIL14 diffusion tubes in Chilworth
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
St John the Baptist Church
Cherry Orchard
AND19
South Croye
ALEXANDRA ROAD
WINDSOR ROAD
Kintail
Kimberley
Sherwood Court
AND15
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Plan 9
Approx. location of AND15 & AND19 diffusion tubes in Andover
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council


N
Not to Scale
AND20
AND22
Cedar
Works
Elm Court
Lane's End
El Sub Sta
Plan 10
Approx. location of AND20 & AND22 diffusion tubes in Andover
Housing & Environmental Health Service
Beech Hurst, Weyhill Road,
Andover Hampshire SP10 3AJ
Test Valley
Borough Council
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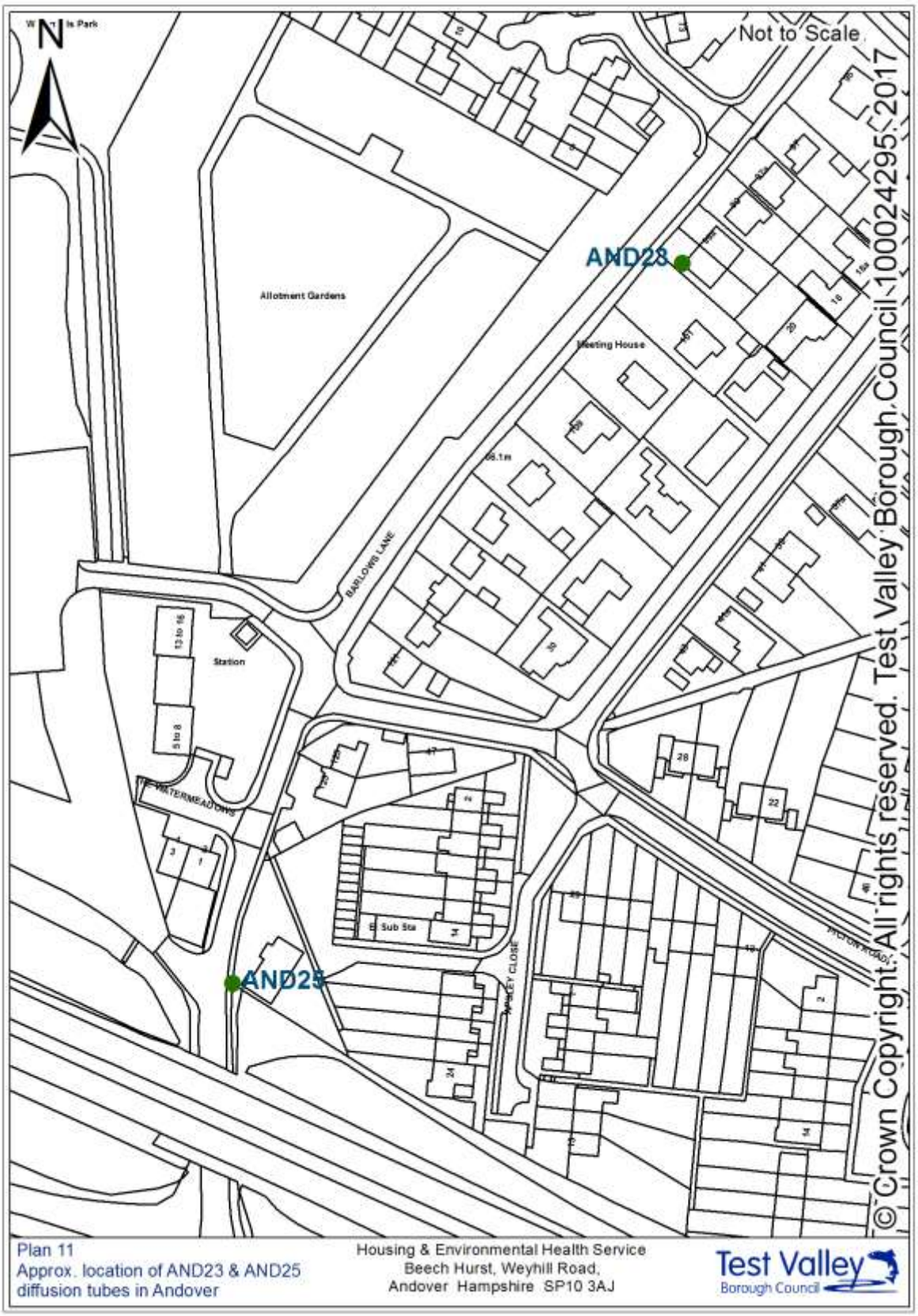
N
Not to Scale
AND23
AND25
Allotment Gardens
Meeting House
BARLOWS LANE
Station
WATERMEADOWS
Sub Sta
ASHLEY CLOSE
PRIORY ROAD
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Plan 11
Approx. location of AND23 & AND25
diffusion tubes in Andover
Housing & Environmental Health Service
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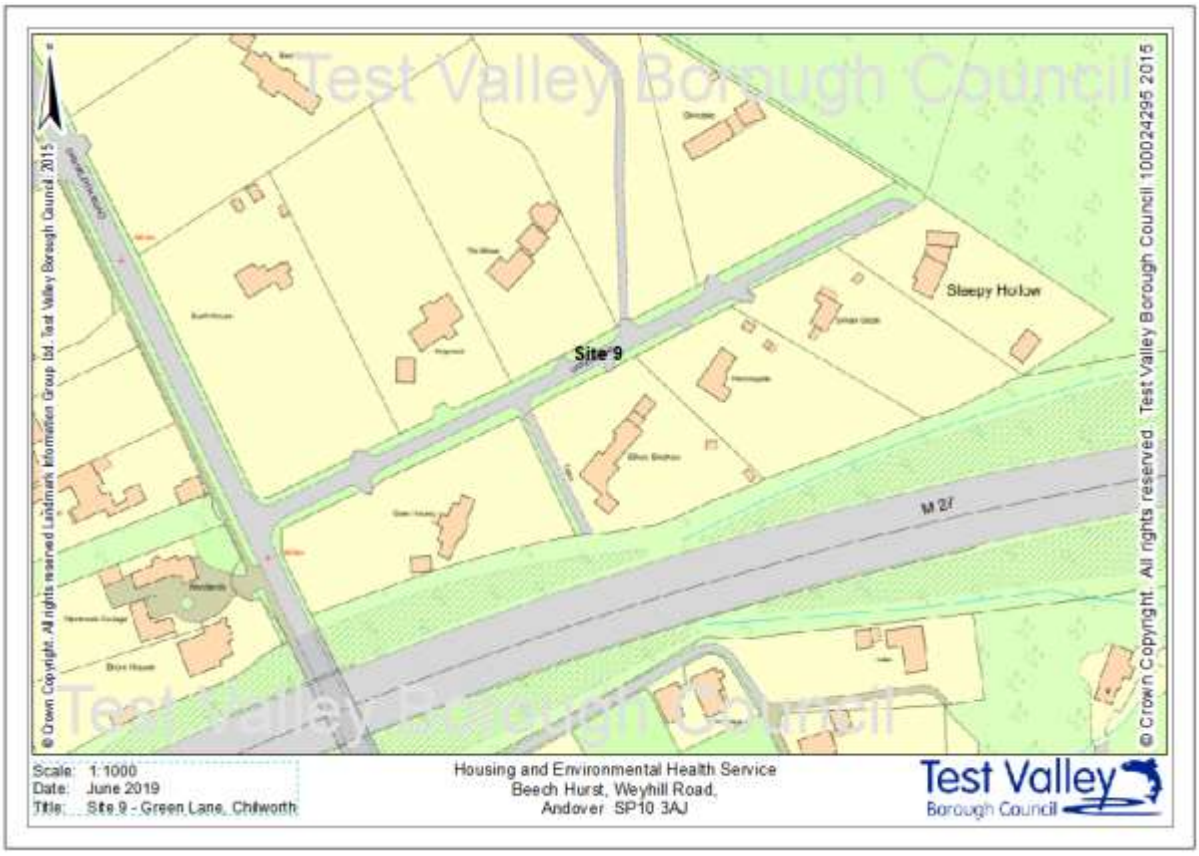
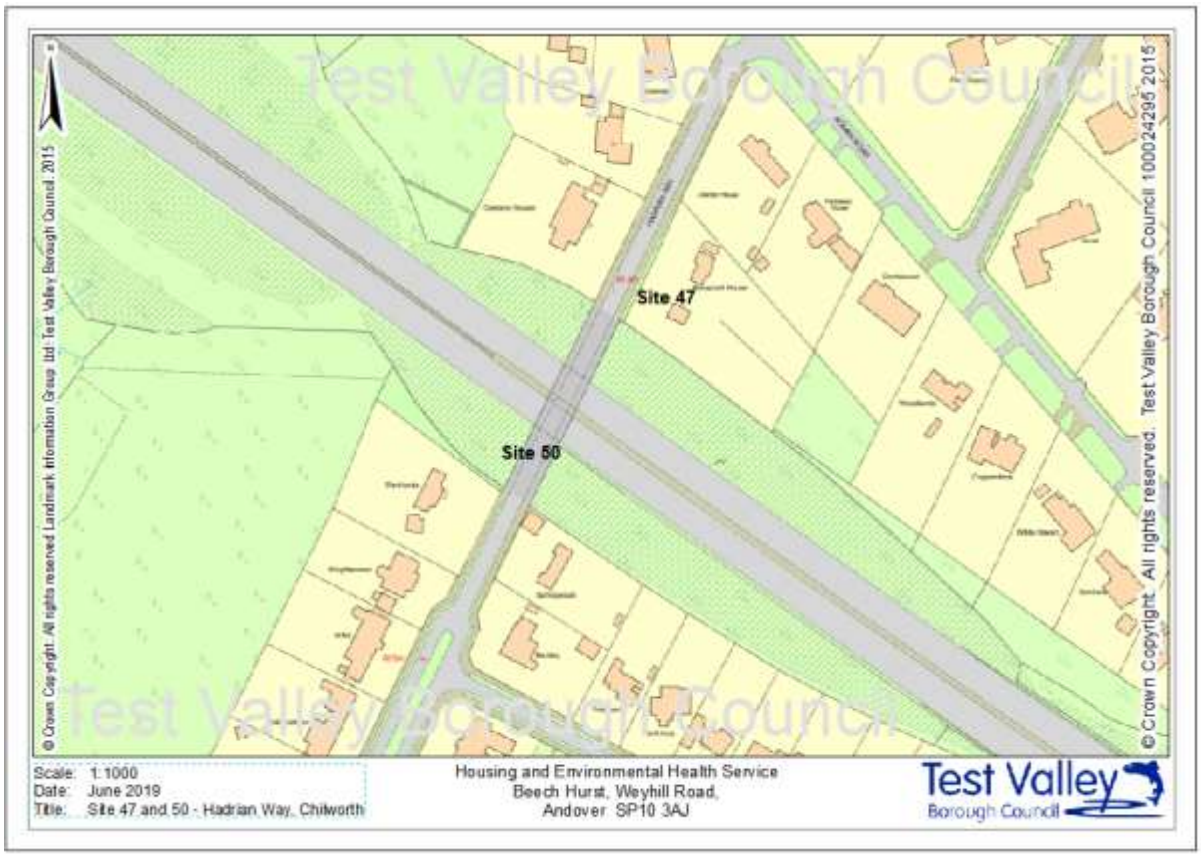
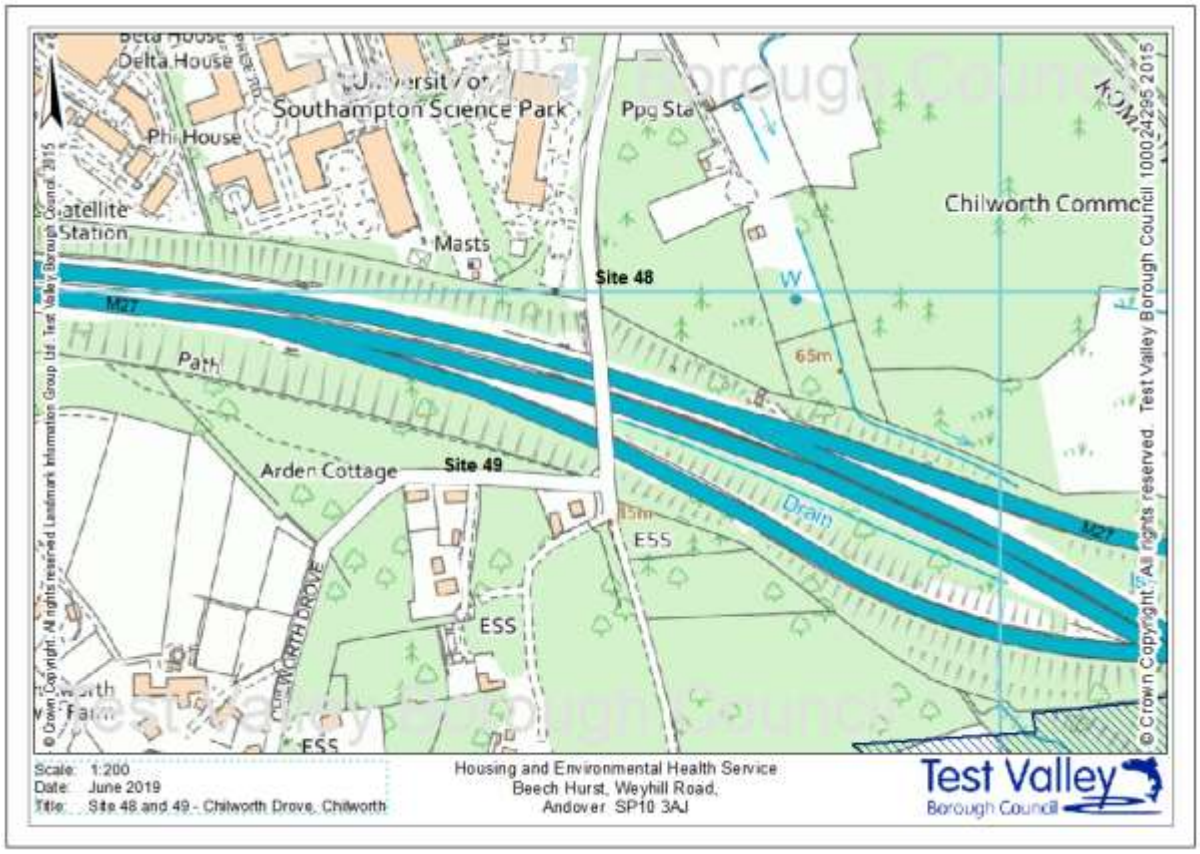
Borough Council

Highways Tubes






Delta House
Southampton Science Park
Chilworth Commc
Masts
Site 48
M27
Path
Arden Cottage
Site 49
Drain
ESS
NORTH DROVE
65m
Scale: 1:200
Date: June 2019
Title: Site 48 and 49 - Chilworth Drove, Chilworth
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
Test Valley
Borough Council
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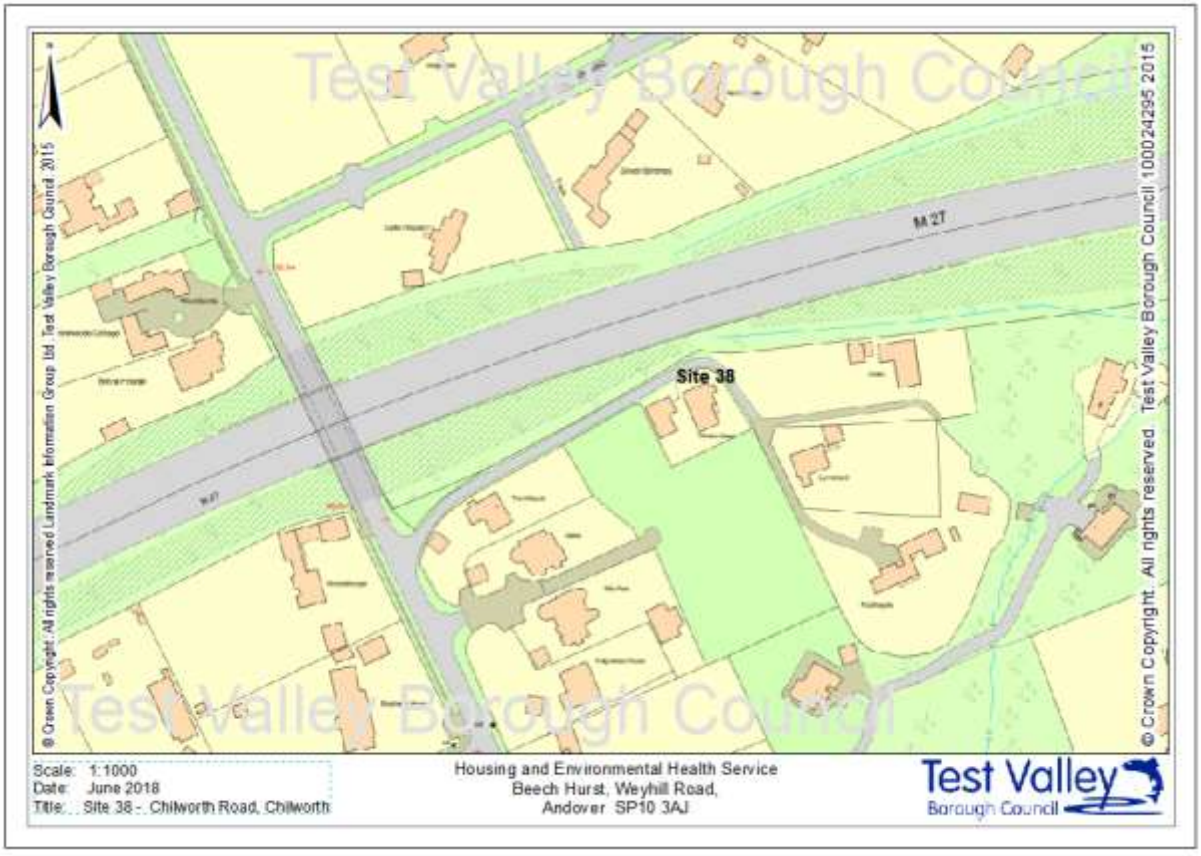
M27
Site 38
Scale: 1:1000
Date: June 2018
Title: Site 38 - Chilworth Road, Chilworth
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
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New Tube Locations for 2019.

Tube Number	Tube Location		New Location for 2019
1	Winchester Road (East)	Romsey	**Yes**
2	Duttons Road	Romsey	**Yes**
3	Palmerston Street (West)	Romsey	No
4	Romsey A27 (Bypass)	Romsey	**Yes**
5	Palmerston Street (East)	Romsey	No
6	Winchester Road (West)	Romsey	**Yes**
7	Alma Road (South)	Romsey	No
8	Alma Road (North)	Romsey	No
9	Chilworth Road	Chilwoth	No
10	Nursling Street	Nursling	**Yes**
11	North Baddesley (Cross Roads)	North Baddesley	**Yes**
12	Kings Sombourne	Kings Sombourne	**Yes**
13	Weyhill (A342)	Weyhill, Andover	**Yes**
14	Humberstone Road (East)	Andover	No
15	Little Ann (A343)	Little Ann	**Yes**
16	Nursling (A3057)	Nursling	**Yes**
17	New Street	Andover	**Yes**


Tube Number 1
Tube Number 6
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Scale: 1:1000
Date: June 2019
Title: Tube Location, Winchester Road
Housing and Environmental Health Service
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Andover SP10 3AJ
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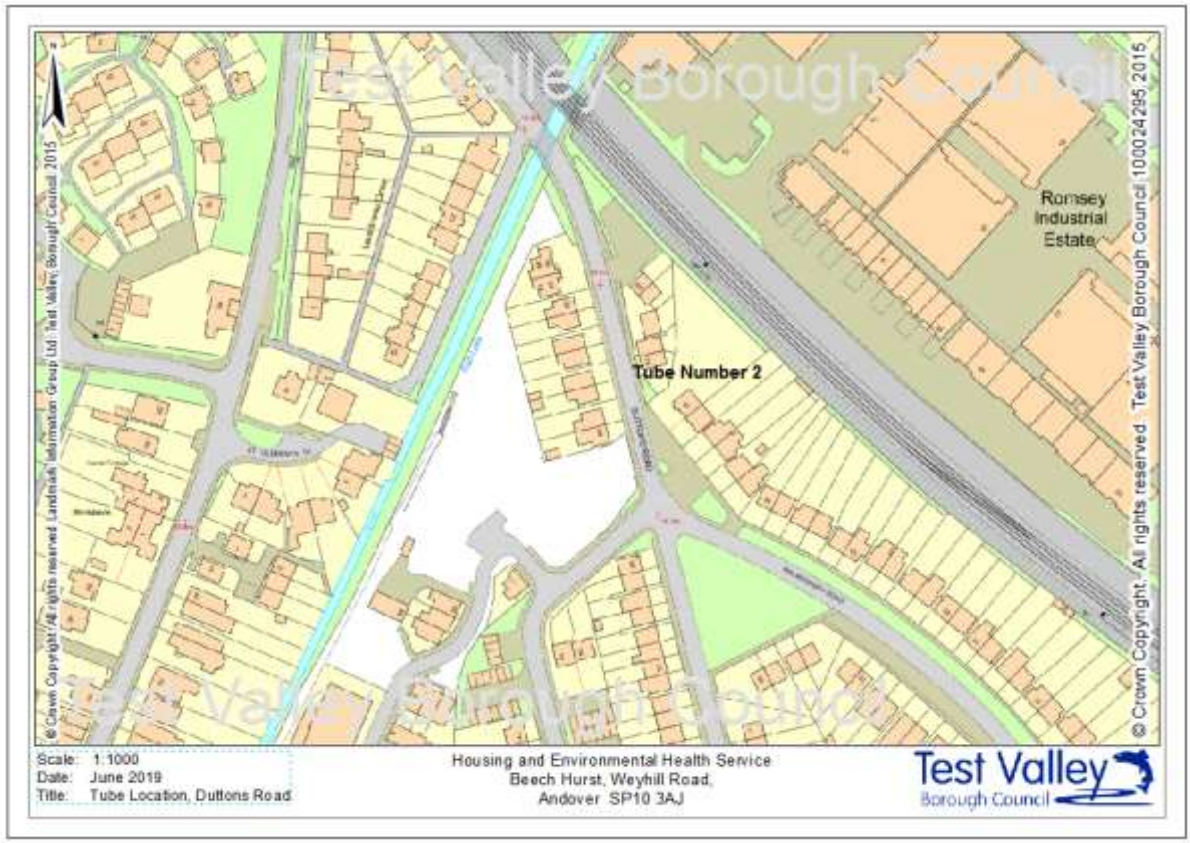
Borough Council


Romsey Industrial Estate
Tube Number 2
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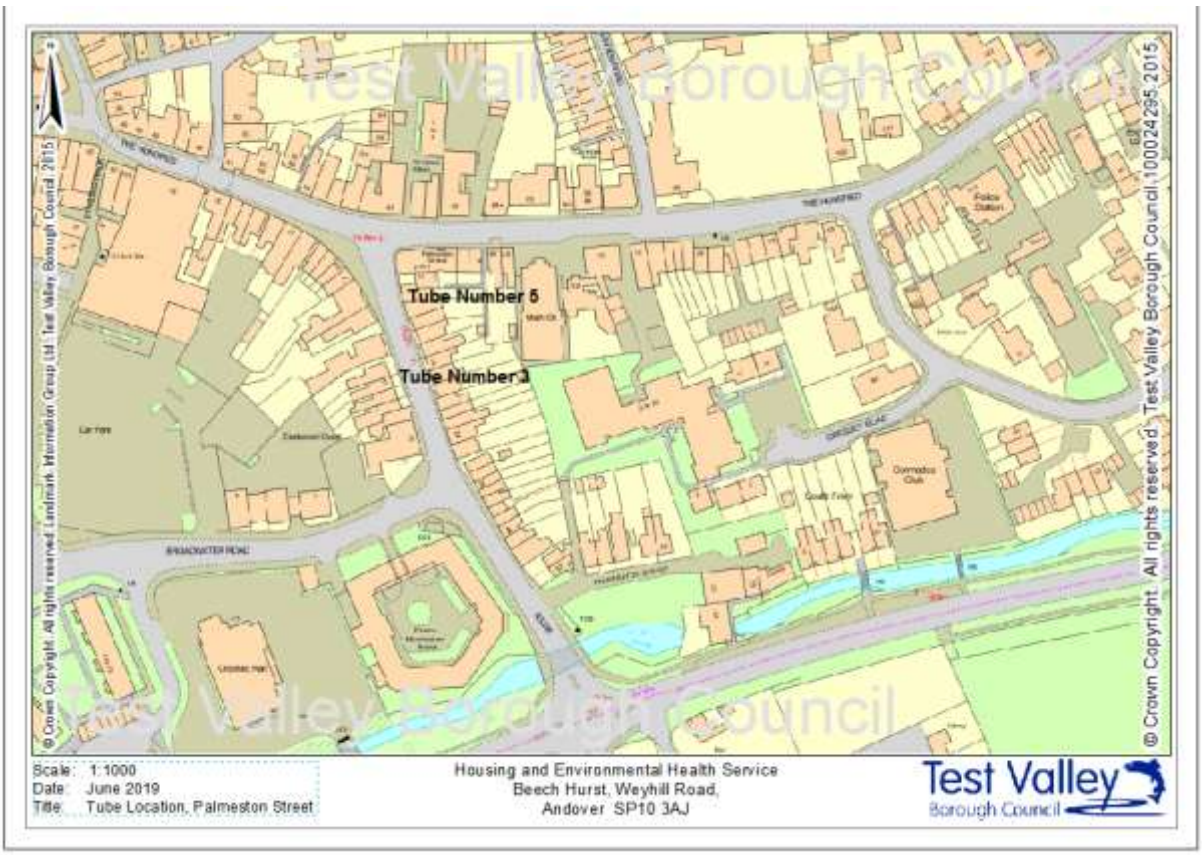
Scale: 1:1000
Date: June 2019
Title: Tube Location, Duttons Road
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
Test Valley
Borough Council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Tube Number 3
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Date: June 2019
Title: Tube Location, Palmeston Street
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
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Test Valley
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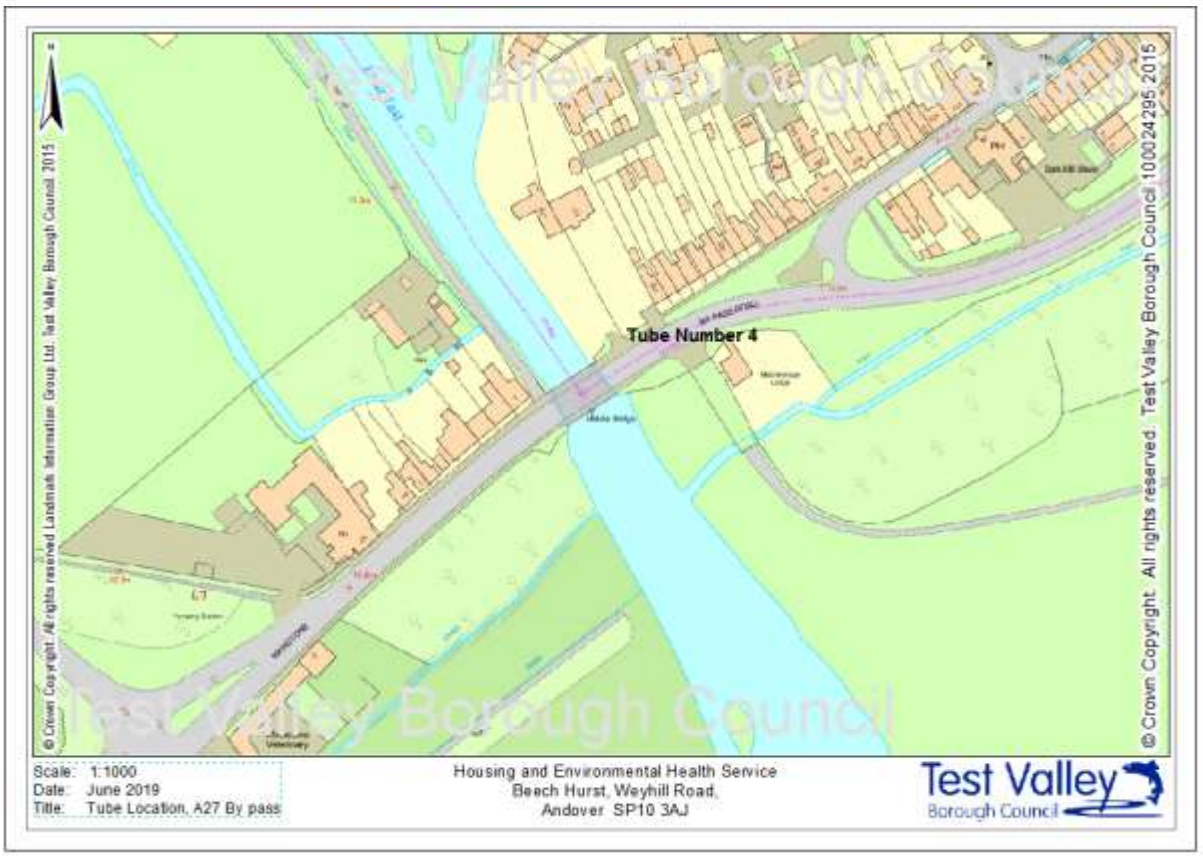
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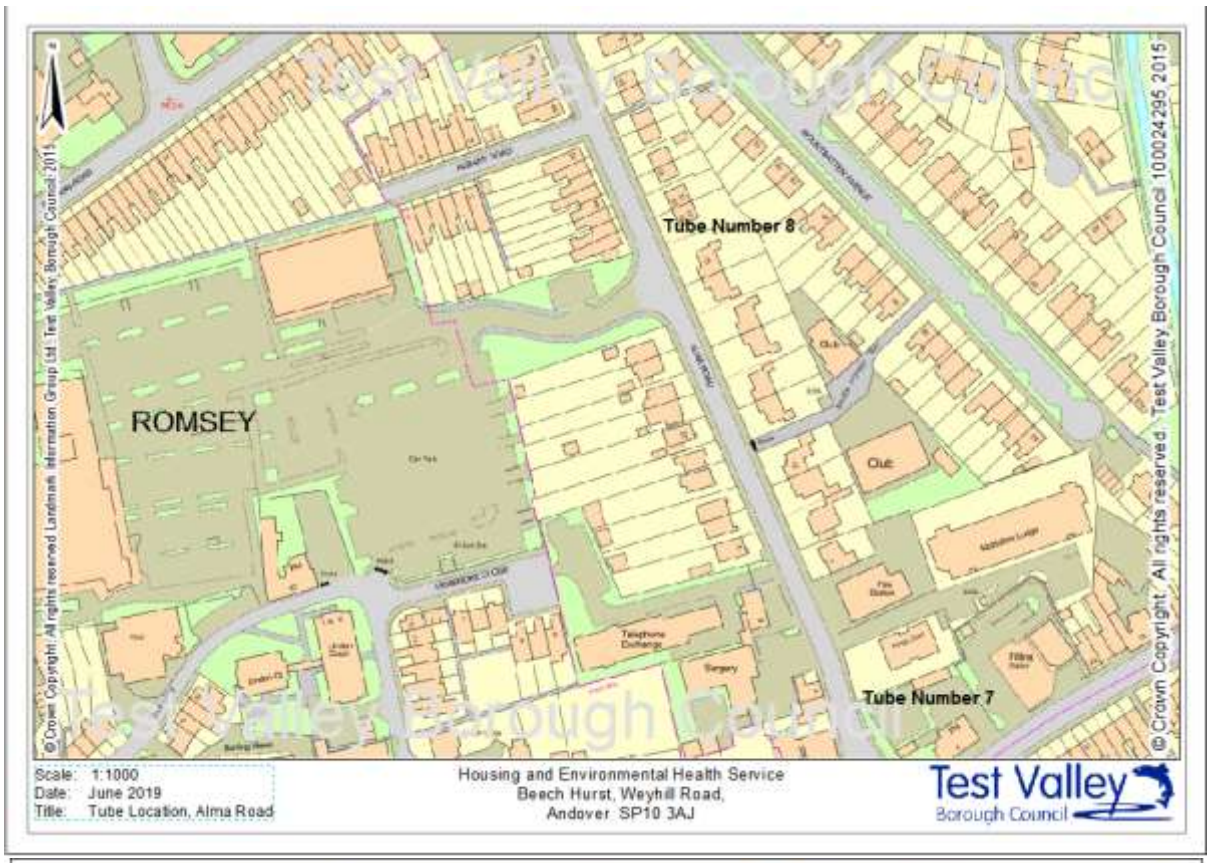
Scale: 1:1000
Date: June 2019
Title: Tube Location, A27 By pass
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
Test Valley
Borough Council


ROMSEY
Tube Number 8
Tube Number 7
Club
Scale: 1:1000
Date: June 2019
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Housing and Environmental Health Service
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Andover SP10 3AJ
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Borough Council
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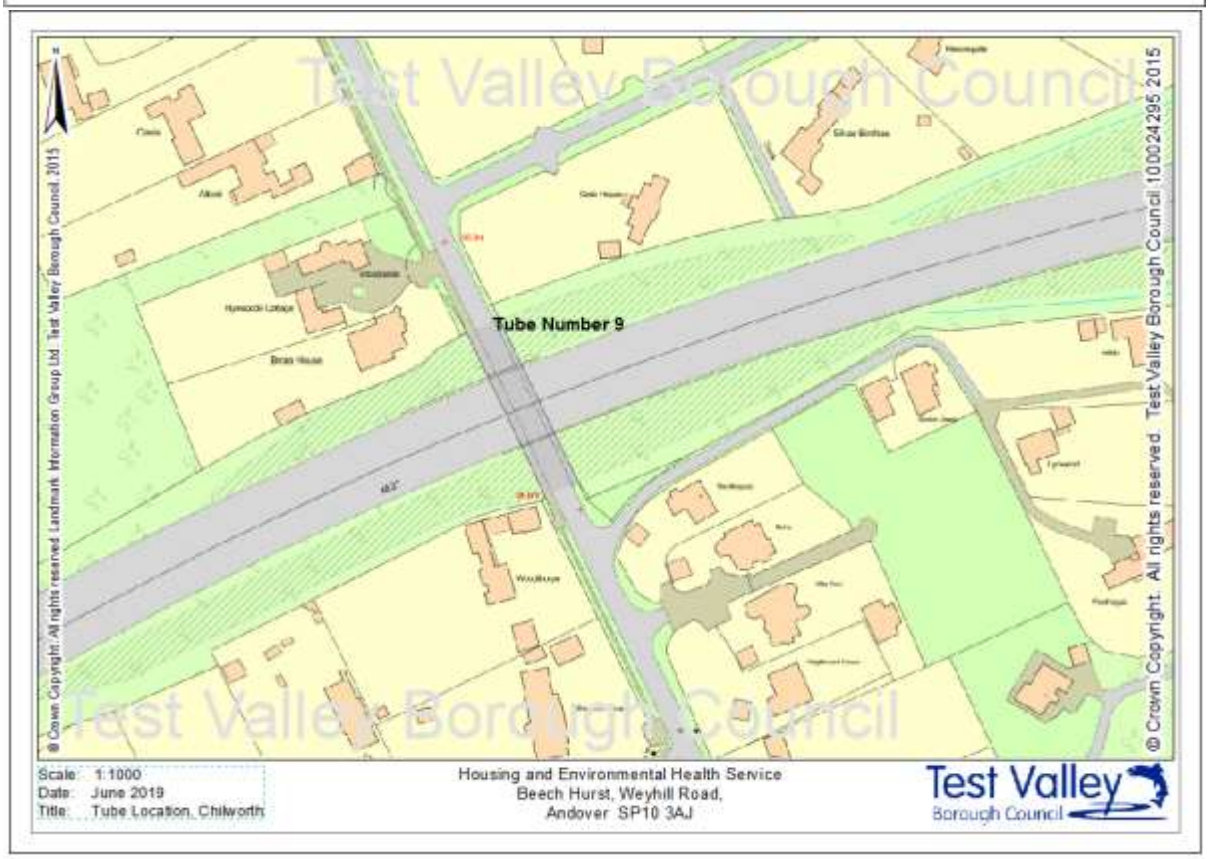
Tube Number 9
Scale: 1:1000
Date: June 2019
Title: Tube Location, Chilworth
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
Test Valley
Borough Council
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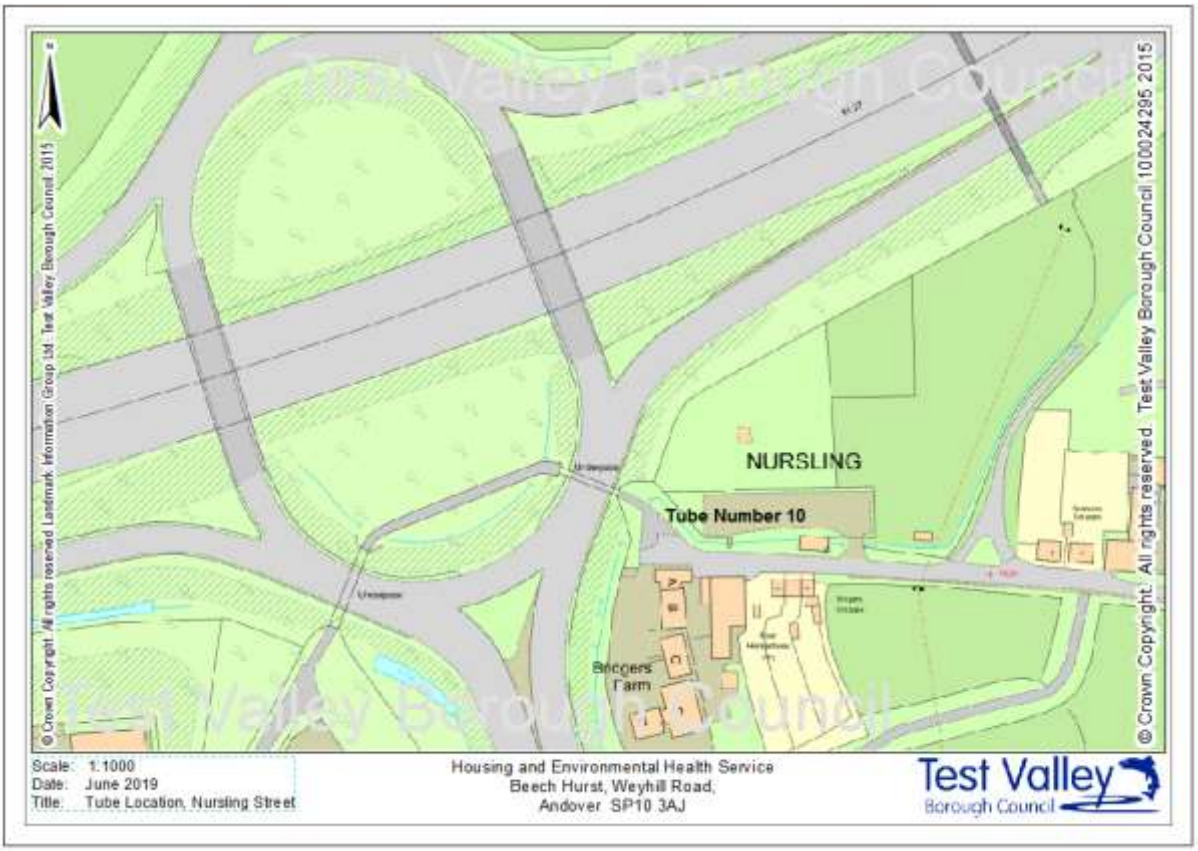
NURSLING
Tube Number 10
Baggers Farm
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Scale: 1:1000
Date: June 2019
Title: Tube Location, Nursling Street
Housing and Environmental Health Service
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Tube Number 11
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Scale: 1:1000
Date: June 2019
Title: Tube Location, North Baddesley
Housing and Environmental Health Service
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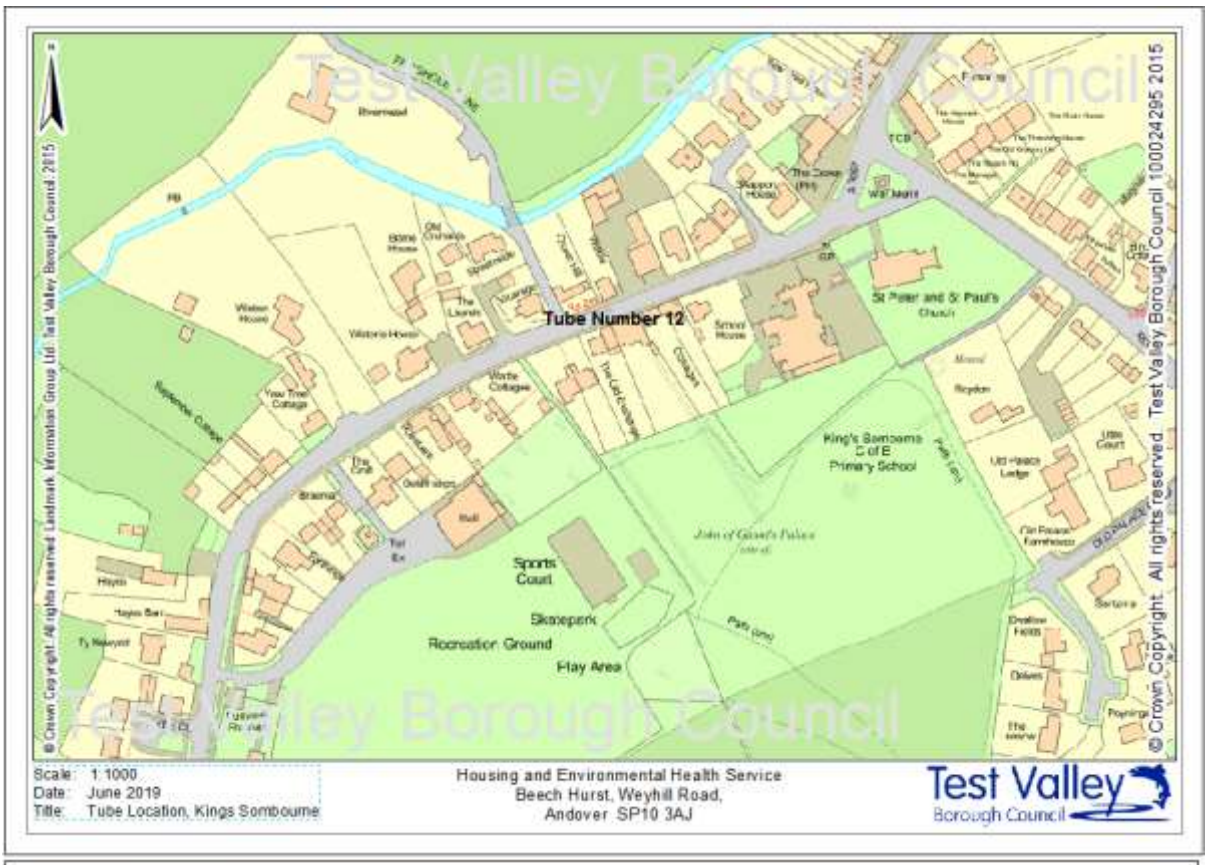
Borough Council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St Peter and St Paul's Church
King's Somborne C of E Primary School
Sports Court
Skatepark
Recreation Ground
Play Area
Scale: 1:1000
Date: June 2019
Title: Tube Location, Kings Sombourne
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
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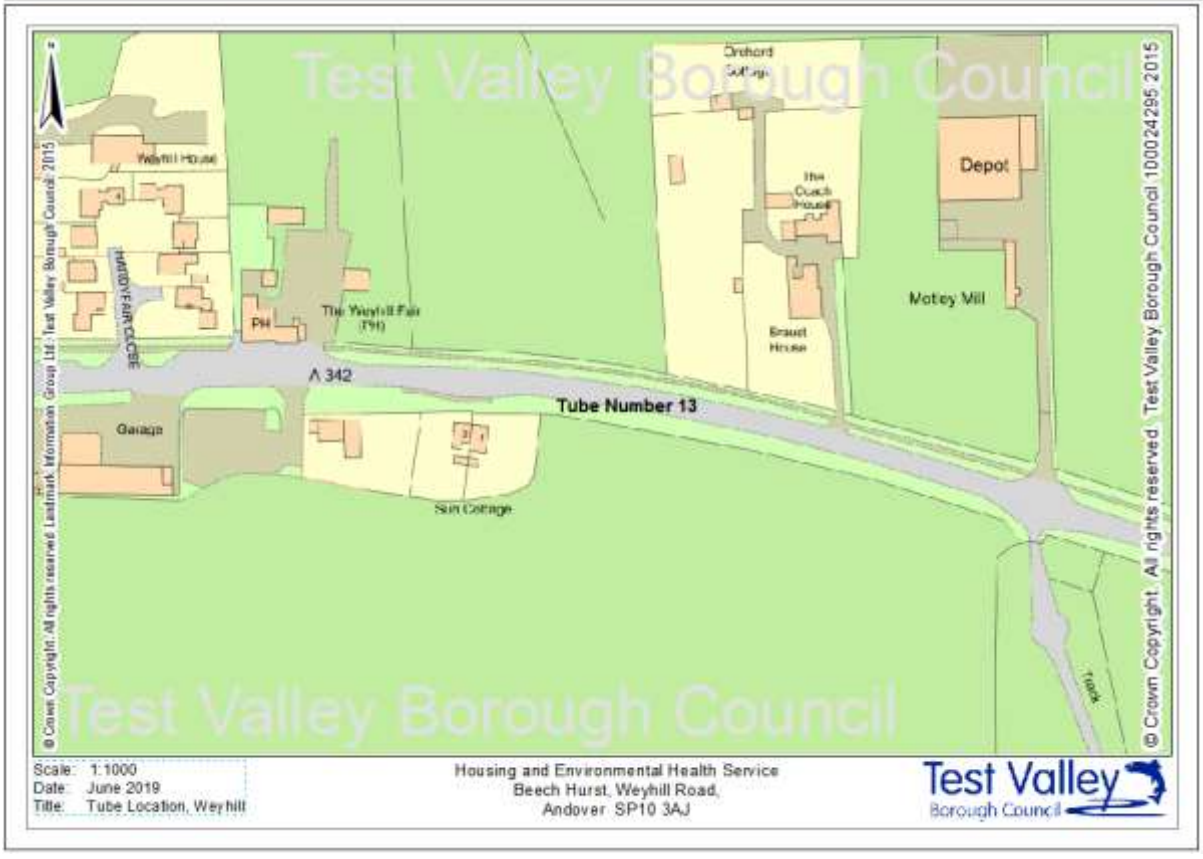
Tube Number 13
A 342
Depot
Motley Mill
Garage
Scale: 1:1000
Date: June 2019
Title: Tube Location, Weyhill
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
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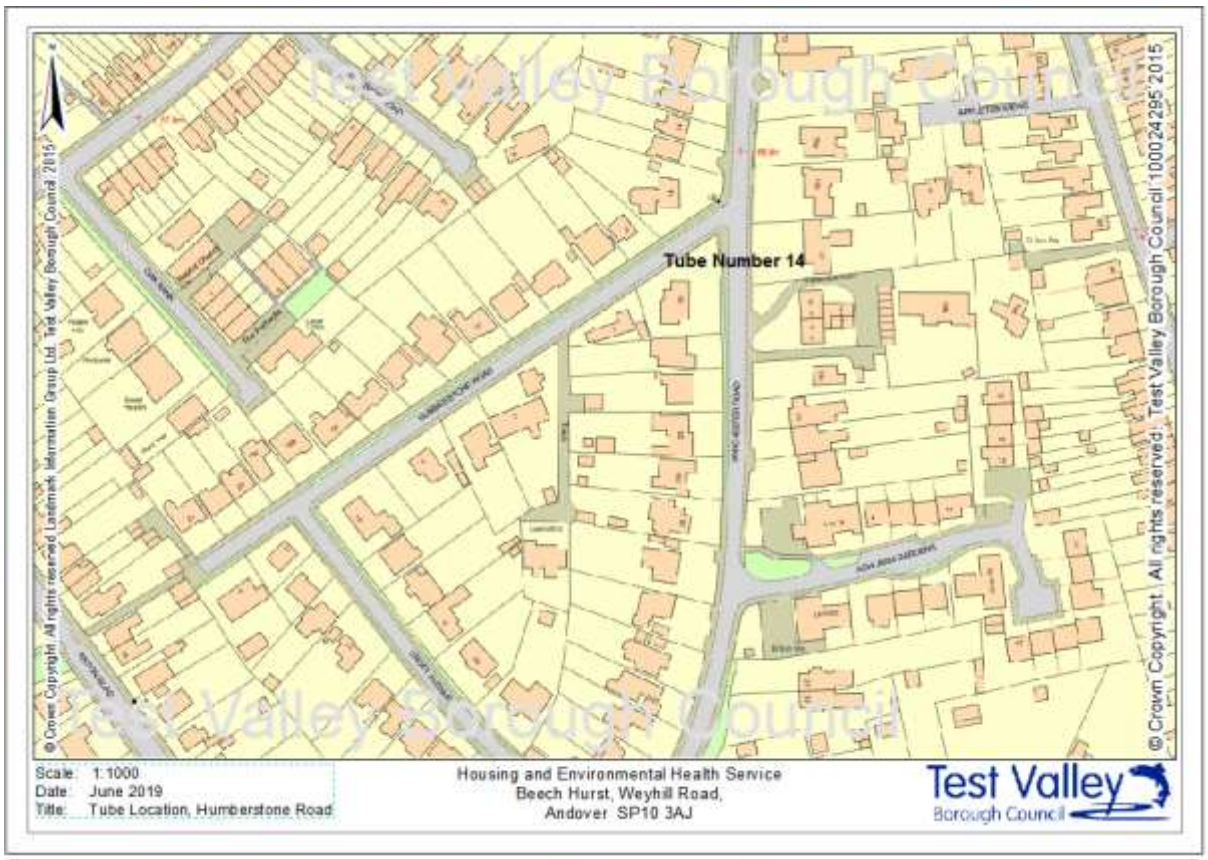
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Date: June 2019
Title: Tube Location, Humberstone Road
Housing and Environmental Health Service
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Andover SP10 3AJ
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LITTLE ANN
Tube Number 15
OLD SALISBURY ROAD
SALISBURY ROAD
Scale: 1:1000
Date: June 2019
Title: Tube Location, Little Ann
Housing and Environmental Health Service
Beech Hurst, Weyhill Road,
Andover SP10 3AJ
Test Valley
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Tube Number 16
Scale: 1:1000
Date: June 2019
Title: Tube Location, A3057 Nursling
Housing and Environmental Health Service
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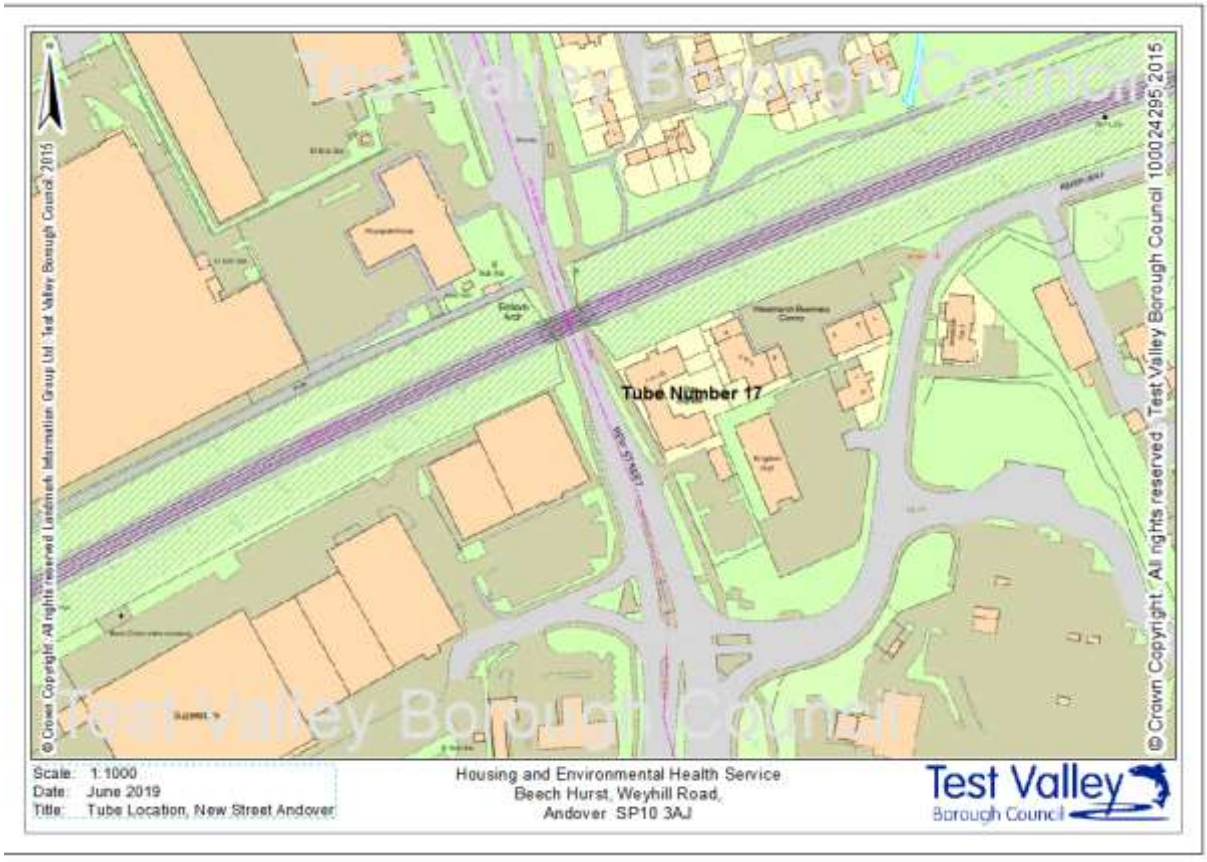
Tube Number 17
Scale: 1:1000
Date: June 2019
Title: Tube Location, New Street Andover
Housing and Environmental Health Service
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Andover SP10 3AJ
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Appendix E: Summary of Air Quality Objectives in England

Table E.1 – Air Quality Objectives in England

Pollutant	Air Quality Objective[4]	
	Concentration	Measured as
Nitrogen Dioxide (NO_2)	200 µg/m^3 not to be exceeded more than 18 times a year	1-hour mean
	40 µg/m^3	Annual mean
Particulate Matter (PM_{10})	50 µg/m^3, not to be exceeded more than 35 times a year	24-hour mean
	40 µg/m^3	Annual mean
Sulphur Dioxide (SO_2)	350 µg/m^3, not to be exceeded more than 24 times a year	1-hour mean
	125 µg/m^3, not to be exceeded more than 3 times a year	24-hour mean
	266 µg/m^3, not to be exceeded more than 35 times a year	15-minute mean

[4] The units are in microgrammes of pollutant per cubic metre of air (µg/m^3).

Glossary of Terms

Abbreviation	Description
AQMA	Air Quality Management Area – An area where air pollutant concentrations exceed / are likely to exceed the relevant air quality objectives. AQMAs are declared for specific pollutants and objectives
ASR	Air quality Annual Status Report
Defra	Department for Environment, Food and Rural Affairs
EU	European Union
LAQM	Local Air Quality Management
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PM_{10}	Airborne particulate matter with an aerodynamic diameter of 10µm (micrometres or microns) or less
$PM_{2.5}$	Airborne particulate matter with an aerodynamic diameter of 2.5µm or less
SO_2	Sulphur Dioxide

References

Defra (April 2016), Part IV of the Environment Act 1995, Local Air Quality Management – Policy Guidance (PG16)

Defra (April 2016), Part IV of the Environment Act 1995, Local Air Quality Management – Technical Guidance (TG16)

Defra (December 2015), Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO_2) on Southampton Urban Area (UK0019)

AEA Energy & Environment (February 2008), Diffusion Tubes for Ambient NO_2 Monitoring: Practical Guidance for Laboratories and Users, AEAT/ENV/R/2504 - Issue 1a