



Teddington Direct River Abstraction
EIA Scoping Report
Appendix C Air Quality Monitoring Data
J698-AI-C03X-TEDD-RP-EN-100007

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This document has been produced to support Thames Water's request for an Environmental Impact Assessment (EIA) Scoping Opinion under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) for the London Water Recycling Teddington Direct River Abstraction. The information presented in this document includes material or data which is still in the course of completion, pending consultation, engagement, further design development and technical assessment as part of the ongoing EIA.

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C. Air Quality Monitoring Data

C.1 Monitored concentrations

- C.1.1 All the local authorities within the boundary of the Project employ the use of NO₂ diffusion tubes (DT) at a range of locations across their authority and some also employ the use of automatic monitoring (AM) stations which measure (NO₂, PM₁₀ and PM_{2.5}).
- C.1.2 Details of the closest monitoring sites (within 1km of the EIA Scoping Boundary for DT and within 4km of the EIA Scoping Boundary for AM) which monitor annual mean NO₂, hourly mean NO₂, annual mean PM₁₀, daily mean PM₁₀ and annual mean PM_{2.5} are presented in the tables below and in Plan 6.5, Appendix A Plans.

Table C.1 Annual-mean NO₂ concentrations (µg/m³) at nearby monitoring locations

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	Local authority	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
HS89	Mogden Sewage Works Gate	515424	174719	Roadside	28.9	27.4	22.5	21.9	19.7	Borough of Hounslow (LBH)	0.4	DT
HS61	Twickenham Road	516208	175793	Roadside	32.1	31.4	21.4	23.4	22.1	LBH	0.6	DT
Rut 01	Civic Centre	516415	173419	Roadside	38	36	29	27	24	London Borough of Richmond upon Thames (LBR)	0.3	DT
71	A316	516574	174456	Roadside	Not open	52	43	39	34	LBR	0.2	DT
72	St Margarets Rd, near St	516839	174238	Roadside	Not open	42	33	30	26	LBR	0.4	DT

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	Local authority	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
	Margaret's station											
76	Manor Rd	516588	171357	Kerbside	Not open	Not open	35	35	30	LBR	0.5	DT
65	York Street, Twickenham	516339	173366	Kerbside	55	50	40	40	33	LBR	0.4	DT
56	A316	516788	174519	Roadside	43	39	31	29	23	LBR	0.4	DT
58	London Road	516039	173766	Kerbside	43	40	33	31	25	LBR	0.5	DT
61	London Road	516224	173444	Roadside	43	38	32	31	Closed	LBR	0.5	DT
59	Whitton Rd	515980	173758	Kerbside	40	34	27	Closed	Closed	LBR	0.5	DT
45	154 High St	516383	171154	Kerbside	33	32	26	26	20	LBR	0.8	DT
32	Kings St	516226	173195	Roadside	56	47	40	40	31	LBR	0.6	DT
31	A316	515434	174045	Roadside	49	45	35	35	31	LBR	0.9	DT
33	Heath Rd	516098	173153	Roadside	52	40	34	39	28	LBR	0.7	DT
15	Richmond Rd, Twickenham	517196	173933	Roadside	34	32	26	26	21	LBR	0.6	DT

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	Local authority	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
27	Fire Station	517800	171423	Roadside	34.84	32.4	26.24	N/A	N/A	Royal Borough of Kingston upon Thames (RBK)	0.3	DT

Notes: Data capture for all sites >75%

Table C.2 Number of hours NO₂ concentrations exceed 200 µg/m³ at nearby monitoring locations

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	LA	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
HEST	Heston Road	513655	176842	Roadside	0	0	0	0	0	LBH	2.4	AM
KT5	Cromwell Road	518562	169519	Roadside	1	5	0	N/A	N/A	RBK	2.1	AM

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	LA	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
BREN	Brentford, Great West Road	517425	178071	Roadside	0	0	0	0	0	LBH	3.2	AM

Notes: Data capture for all sites >75%

Table C.3 Annual-mean PM₁₀ concentrations (µg/m³) at nearby monitoring locations

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	LA	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
TD0	NPL	515542	170420	Suburban	N/A	N/A	13	12	14	LBR	1.9	AM
HEST	Heston Road	513655	176842	Roadside	22	24	23	17	21	LBH	2.4	AM
KT5	Cromwell Road	518562	169519	Roadside	30	26	23.9	N/A	N/A	RBK	2.1	AM
BREN	Brentford, Great West Road	517425	178071	Roadside	26	22	25	21	23	LBH	3.2	AM

Notes: Data capture for all sites >75%. N/A – not available

Table C.4 Number of days daily mean PM₁₀ concentrations exceeds 50 µg/m³ at nearby monitoring locations

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	Local authority	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
TD0	NPL	515542	170420	Suburban	N/A	N/A	2	0	1	LBR	1.9	AM
HEST	Heston Road	513655	176842	Roadside	2	5	4	0	5	LBH	2.4	AM
KT5	Cromwell Road	518562	169519	Roadside	15	15	9	N/A	N/A	RBK	2.1	AM
BREN	Brentford, Great West Road	517425	178071	Roadside	4	8	9	3	5	LBH	3.2	AM

Notes: Data capture for all sites >75%. N/A – not available

Table C.5 Annual-mean PM_{2.5} concentrations (µg/m³) at nearby monitoring locations

Site ID	Site name	X	Y	Site type	2018	2019	2020	2021	2022	Local authority	Approximate distance (km)	Diffusion tubes (DT) or automatic monitoring (AM)
BREN	Brentford, Great West Road	517425	178071	Roadside	15	13	12	10	10	LBH	3.2	AM
TD0	NPL	515542	170420	Suburban	11	12	8	8	9	LBR	1.9	AM

C.2 Defra Background concentrations

C.2.1 Defra provides modelled background concentrations for each 1x1 km grid across all local authority areas from a base year of 2018. Table C.6 presents the estimated background concentrations within 1km of the Teddington DRA area for 2018 for locations within the Defra map for Greater London.

Table C.6 Annual-mean Defra Background Mapped Concentrations ($\mu\text{g}/\text{m}^3$)

Grid Square Coordinates (X)	Grid Square Coordinate (Y)	NO _x	NO ₂	PM ₁₀	PM _{2.5}
516500	175500	32.9	22.2	17.2	11.7
515500	175500	32.7	22.0	16.9	11.6
515500	174500	32.9	22.2	17.1	11.6
516500	174500	35.3	23.6	17.7	12.0
516500	172500	28.1	19.5	16.2	11.1
517500	173500	28.0	19.5	16.0	10.9
516500	173500	33.2	22.4	17.2	11.7
517500	171500	29.0	20.0	16.4	11.2
516500	171500	30.7	20.9	16.5	11.3
517500	172500	27.7	19.2	16.2	11.1

Grid Square Coordinates (X)	Grid Square Coordinate (Y)	NO _x	NO ₂	PM ₁₀	PM _{2.5}
	Maximum	35.3	23.6	17.7	12.0
	Minimum	27.7	19.2	16.0	10.9
	National Air Quality Objective (NAQO)	30	40	40	25 (10)

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