

M25 junction 10/A3 Wisley interchange TR010030

6.5 Environmental Statement: Appendix 8.2 Summary of groundwater level information

Regulation 5(2)(a)
Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

M25 junction 10/A3 Wisley interchange

The M25 junction 10/A3 Wisley interchange Development Consent Order 202[x]

6.5 ENVIRONMENTAL STATEMENT APPENDICES: APPENDIX 8.2 SUMMARY OF GROUNDWATER LEVEL INFORMATION

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Planning Inspectorate Scheme Reference	TR010030
Application Document Reference	TR010030/APP/6.5
Author:	M25 junction 10/A3 Wisley interchange project team, Highways England

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Summary of Groundwater Level Information

10.1 Summary of Groundwater Level Information

Table 10.1.1: Summary of groundwater levels recorded within the study area collated from publicly available information

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater level recorded (mAOD)	Date of measurement	Data source
BH101	Wisley Airfield	506581, 157638	Bagshot Formation	10	29.12	May-14	WSP (2014) ¹
BH103	Wisley Airfield	507566, 157858	Bagshot Formation	13	33.6	May-14	WSP (2014) ¹
BH104S	Wisley Airfield	508337, 157267	Lynch Hill Gravel Member	10.6	43.2	May-14	WSP (2014) ¹
BH105S	Wisley Airfield	508513, 157597	Bagshot Formation	10	42.19	May-14	WSP (2014) ¹
WS101	Wisley Airfield	506853, 157764	Bagshot Formation	1.3	29.41	May-14	WSP (2014) ¹
WS102	Wisley Airfield	507051, 157846	Lynch Hill Gravel Member	2	28.54	May-14	WSP (2014) ¹
WS103	Wisley Airfield	507179, 157861	Bagshot Formation	4	28.63	May-14	WSP (2014) ¹
WS104	Wisley Airfield	506996, 157753	Bagshot Formation	3	29.21	May-14	WSP (2014) ¹
WS105	Wisley Airfield	507248, 157793	Bagshot Formation	2.5	29.48	May-14	WSP (2014) ¹
WS106	Wisley Airfield	507153, 157673	Bagshot Formation	2	30.3	May-14	WSP (2014) ¹
WS107	Wisley Airfield	506913, 157646	Made Ground/ Bagshot Formation	2	29.88	May-14	WSP (2014) ¹

¹ WSP (2014). Wisley Airfield: Environmental Interpretative Report, Wisley Property Investments Limited, June 27, 2014.

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater level recorded (mAOD)	Date of measurement	Data source
BH109	Wisley Airfield/A3 landfill and Old Rectory Farm	506404, 157385	Gravel	2.1	20.4	Nov-12	Capita Symonds (2012) ²
10/3+68A	Painshill Junction	509814, 160795	Sand	9.8	16	N/A	HAGDMS 27980 ³
TQ06SE19	Painshill	509940, 160900	Sand and gravel (confined by clay)	15.24	13.87	Jul-68	BGS Logs ⁴
TQ06SE17	Painshill	509880, 10890	Clayey sand	15.24	13.83	Jul-68	BGS Logs ⁴
TQ16SW105	Painshill	510830, 160220	Sandy gravel	15	70.5	Oct-89	BGS Logs ⁴
TQ05NE152	Junction 10	507857, 159658	Silty clay	10	21.65	Jun-72	BGS Logs ⁴
TQ05NE351	Junction 10	507834, 158842	Sand	14.95	24.3	Apr-77	BGS Logs ⁴
TQ05NE128	Junction 10	509283, 158501	Sand	10	32.05	Sep-74	BGS Logs ⁴
TQ05NE24	South of scheme close to river	506240, 157500	Sand (artesian conditions)	9.14	21.72	Jan-68	BGS Logs ⁴
TQ05NE25	South of scheme close to river	506220, 157530	(artesian conditions)	9.14	21.5	Jan-68	BGS Logs ⁴

²Capita Symonds (2013) In-vessel Composting Access Road, Wisley Airfield Interpretative report on the site investigation on north bank of Ockham Stream

³Guildford Borough (2019). Planning applications portal. Accessed on 04/02/2019 from <https://www.guildford.gov.uk/searchforaplanningapplication>

⁴British Geological Survey (2017) Onshore GeoIndex (Online) Accessed on 21/03/2018 from <http://mapapps2.bgs.ac.uk/geoindex/home.html>

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater level recorded (mAOD)	Date of measurement	Data source
TQ05NE122	Land proposed for replacement Land	508930, 158080	Unknown	198	45.72	Pre 1900	BGS Logs ⁴
TQ05NE300	Western limb of scheme	506380, 159740	Clayey silty sand	15	12.61	May 1992	BGS Logs ⁴

Table 10.1.2: Summary of groundwater strikes recorded within the study area collated from publicly available information

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
BH103	Wisley Airfield	507566, 157858	Bagshot Formation	13	28.51	May-14	WSP (2014) ¹
BH105S	Wisley Airfield	508513, 157597	Bagshot Formation	10	39.114	May-14	WSP (2014) ¹
WS101	Wisley Airfield	506853, 157764	Bagshot Formation	1.3	29.41	May-14	WSP (2014) ¹
WS102	Wisley Airfield	507051, 157846	Lynch Hill Gravel Member	2	28.543	May-14	WSP (2014) ¹
WS103	Wisley Airfield	507179, 157861	Bagshot Formation	4	28.632	May-14	WSP (2014) ¹
WS104	Wisley Airfield	506996, 157753	Bagshot Formation	3	29.116	May-14	WSP (2014) ¹
WS105	Wisley Airfield	507248, 157793	Bagshot Formation	2.5	29.476	May-14	WSP (2014) ¹
WS106	Wisley Airfield	507153, 157673	Bagshot Formation	2	30.19	May-14	WSP (2014) ¹
WS107	Wisley Airfield	506913, 157646	Made Ground/ Bagshot Formation	2	29.857	May-14	WSP (2014) ¹

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
WS109	Wisley Airfield	507370, 157394	Lynch Hill Gravel Member	2	39.638	Jan-00	WSP (2014) ¹
TP103	Wisley Airfield	506420, 157443	Made Ground	1.5	22.875 (most likely perched water)	N/A	WSP (2014) ¹
TP105	Wisley Airfield	506772, 157731	Made Ground	1.4	33.49 (most likely perched water)	N/A	WSP (2014) ¹
TP127	Wisley Airfield	507164, 157456	Lynch Hill Gravel Member	4	37	N/A	WSP (2014) ¹
TP130	Wisley Airfield	507347, 157418	Lynch Hill Gravel Member	3.8	38.249	N/A	WSP (2014) ¹
TP134	Wisley Airfield	507369, 157636	Bagshot Formation	3.8	33.785	N/A	WSP (2014) ¹
TP135	Wisley Airfield	507353, 157715	Bagshot Formation	4	31.744	N/A	WSP (2014) ¹
TP137	Wisley Airfield	507458, 157842	Bagshot Formation	4	32.009	N/A	WSP (2014) ¹
TP138	Wisley Airfield	507520, 157874	Bagshot Formation	4	32.21	N/A	WSP (2014) ¹
TP146	Wisley Airfield	507673,	Bagshot Formation	3.4	37.356	N/A	WSP (2014) ¹

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
		157670					
TP148	Wisley Airfield	507596, 157763	Lynch Hill Gravel Member	3.7	37.928	N/A	WSP (2014) ¹
TP149	Wisley Airfield	507675, 157800	Bagshot Formation	3.9	34.061	N/A	WSP (2014) ¹
TP150	Wisley Airfield	507744, 157574	Bagshot Formation	4	38.935	N/A	WSP (2014) ¹
TP151	Wisley Airfield	507850, 157721	Lynch Hill Gravel Member	3.7	38.267	N/A	WSP (2014) ¹
TP156	Wisley Airfield	507850, 157721	Lynch Hill Gravel Member	3.7	37.397	N/A	WSP (2014) ¹
TP157	Wisley Airfield	507856, 157771	Lynch Hill Gravel Member	3.7	35.446	N/A	WSP (2014) ¹
TP158	Wisley Airfield	507972, 157736	Lynch Hill Gravel Member	4	36.418	N/A	WSP (2014) ¹
TP159	Wisley Airfield	507986, 157639	Bagshot Formation	3.6	38.286	N/A	WSP (2014) ¹
TP162	Wisley Airfield	508116, 157414	Lynch Hill Gravel Member	3.7	41.46	N/A	WSP (2014) ¹

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TP164	Wisley Airfield	508162, 157592	Bagshot Formation	3.5	38.736	N/A	WSP (2014) ¹
TP165	Wisley Airfield	508210, 157627	Lynch Hill Gravel Member	2.7	38.064	N/A	WSP (2014) ¹
TP166	Wisley Airfield	508148, 157713	Bagshot Formation	3.7	33.361	N/A	WSP (2014) ¹
TP167	Wisley Airfield	508247, 157743	Lynch Hill Gravel Member	3.2	35.617	N/A	WSP (2014) ¹
TP169	Wisley Airfield	508348, 157823	Bagshot Formation	3.9	35.919	N/A	WSP (2014) ¹
TP171	Wisley Airfield	508224, 157416	Bagshot Formation	3.6	41.945	N/A	WSP (2014) ¹
TP172	Wisley Airfield	508320, 157375	Lynch Hill Gravel Member	3.7	43.974	N/A	WSP (2014) ¹
TP173	Wisley Airfield	508356, 157378	Lynch Hill Gravel Member	3.7	43.448	N/A	WSP (2014) ¹
TP174	Wisley Airfield	508347, 157337	Lynch Hill Gravel Member	3.7	43.349	N/A	WSP (2014) ¹
TP175	Wisley Airfield	508371,	Lynch Hill Gravel Member	3.6	42.784	N/A	WSP (2014) ¹

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
		157246					
TP176	Wisley Airfield	508400, 157420	Lynch Hill Gravel Member	3.5	44.447	N/A	WSP (2014) ¹
TP177	Wisley Airfield	508389, 157488	Bagshot Formation	3.7	42.791	N/A	WSP (2014) ¹
TP179	Wisley Airfield	508438, 157680	Bagshot Formation	3.8	38.637	N/A	WSP (2014) ¹
TP180	Wisley Airfield	508493, 157754	Lynch Hill Gravel Member	2.2	37.812	N/A	WSP (2014) ¹
TP181	Wisley Airfield	508512, 157684	Lynch Hill Gravel Member	3.1	39.503	N/A	WSP (2014) ¹
TP182	Wisley Airfield	508596, 157685	Lynch Hill Gravel Member	1.5	39.371	N/A	WSP (2014) ¹
TP183	Wisley Airfield	508560, 157606	Bagshot Formation	2.9	41.096	N/A	WSP (2014) ¹
TP185	Wisley Airfield	508598, 157528	Bagshot Formation	3.9	42	N/A	WSP (2014) ¹
TP186	Wisley Airfield	508644, 157490	Bagshot Formation	2.8	42.517	N/A	WSP (2014) ¹

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TP187	Wisley Airfield	508502, 157468	Lynch Hill Gravel Member	3	43.425	N/A	WSP (2014) ¹
TP188	Wisley Airfield	508563, 157414	Bagshot Formation	3.3	43.963	N/A	WSP (2014) ¹
TP192	Wisley Airfield	508568, 157320	Lynch Hill Gravel Member	3.2	44.908	N/A	WSP (2014) ¹
TP194	Wisley Airfield	508558, 157205	Lynch Hill Gravel Member	3.7	45.153	N/A	WSP (2014) ¹
TP195	Wisley Airfield	508583, 157206	Lynch Hill Gravel Member	3.5	45.844	N/A	WSP (2014) ¹
TP196	Wisley Airfield	507977, 157548	Bagshot Formation	2	40.467	N/A	WSP (2014) ¹
BH109	Wisley Airfield/A3 landfill and Old Rectory Farm	506404, 157385	Gravel	2.1	19.26	Nov-12	Capita Symonds (2012) ²
10/3+68A	Painshill Junction	509814, 160795	Sand	9.8	15.3	Jan-00	HAGDMS 27980
TQ06SE72/A-B	Painshill	509670, 160800	Sand	4.35	22.4	N/A	BGS Logs ⁴

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TQ06SE14	Painshill	509570, 160650	Sand	22.86	25.9	N/A	BGS Logs ⁴
TQ06SE16	Painshill	509850, 160820	Sand	15.24	12.46	N/A	BGS Logs ⁴
TQ06SE19	Painshill	509940, 160900	Sand and gravel (confined by clay)	15.24	11.43	Jul-68	BGS Logs ⁴
TQ06SE17	Painshill	509880, 10890	Clayey sand	15.24	12.59	Jul-68	BGS Logs ⁴
TQ16SW105	Painshill	510830, 160220	Sandy gravel	15	70.3	Oct-89	BGS Logs ⁴
TQ05NE165	Junction 10	508160, 159657	Silty clay	21.64	27.24	N/A	BGS Logs ⁴
TQ05NE152	Junction 10	507857, 159658	Silty clay	10	19.85	Jun-72	BGS Logs ⁴
TQ05NE182	Junction 10	508200, 159410	silty sandy clay	10	21.66	N/A	BGS Logs ⁴
TQ05NE174	Junction 10	508086, 159493	Silty sand	10	22.02	N/A	BGS Logs ⁴
TQ05NE181	Junction 10	508102, 159394	Sandy silt	20	11.25	N/A	BGS Logs ⁴

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TQ05NE189	Junction 10	508216, 159311	Silty clay	20	19.78	N/A	BGS Logs ⁴
TQ05NE188	Junction 10	508109, 159296	Sand	10.65	21.24	N/A	BGS Logs ⁴
TQ05NE187	Junction 10	508019, 159280	Silty sand	20	11.52	N/A	BGS Logs ⁴
TQ05NE194	Junction 10	508136, 159198	Silty sand	20.6	12.28	N/A	BGS Logs ⁴
TQ05NE196	Junction 10	508330, 159228	Sand	20.6	14.67	N/A	BGS Logs ⁴
TQ05NE201	Junction 10	508247, 159116	Sand	10.65	21.56	N/A	BGS Logs ⁴
TQ05NE192	Junction 10	507937, 159168	Silty sand	20	12.92	N/A	BGS Logs ⁴
TQ05NE179	Junction 10	507904, 159362	Sand	7	19.3	N/A	BGS Logs ⁴
TQ05NE200	Junction 10	508150, 159100	Sand	20.6	12.27	N/A	BGS Logs ⁴
TQ05NE350	Junction 10	507857,	Sand	20	23.55	N/A	BGS Logs ⁴

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
		158828					
TQ05NE351	Junction 10	507834, 158842	Sand	14.95	23	Apr-77	BGS Logs ⁴
TQ05NE278	Junction 10	508834, 158796	Sand	4.5	30.4	N/A	BGS Logs ⁴
TQ05NE267	Junction 10	508965, 158651	Bagshot Formation	5	28.96	N/A	BGS Logs ⁴
TQ05NE268	Junction 10	508944, 158620	Bagshot Formation	5	43.86	N/A	BGS Logs ⁴
TQ05NE128	Junction 10	509283, 158501	Sand	10	24.3	Sep-74	BGS Logs ⁴
TQ05NE129	Junction 10	509378, 158464	Silt	15	23.05	N/A	BGS Logs ⁴
TQ05NE130	Junction 10	509370, 158421	Sand	15	25.35	N/A	BGS Logs ⁴
TQ05NE112	Elm Lane	507600, 158000	Sand	8	27.1	N/A	BGS Logs ⁴
TQ05NE114	Elm Lane	507800, 158000	Sand	8	31.13	N/A	BGS Logs ⁴

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TQ05NE113	Elm Lane	507800, 157800	Sand	7	33.28	N/A	BGS Logs ⁴
TQ05NE24	South of scheme close to river	506240, 157500	Sand (artesian conditions)	9.14	20.31	Jan-68	BGS Logs ⁴
TQ05NE23	South of scheme close to river	506160, 157500	Gravel	3.05	21.03	N/A	BGS Logs ⁴
TQ05NE25	South of scheme close to river	506220, 157530	(artesian conditions)	9.14	20.41	Jan-68	BGS Logs ⁴
TQ05NE21	South of scheme close to river	506120, 157370	Sand and gravel	3.05	23.55	N/A	BGS Logs ⁴
TQ05NE19	Ripley	506040, 157230	Sand with some gravel	4.57	28.01	Jan-00	BGS Logs ⁴
TQ05NE104	Wisley Airfield	506500, 157500	Sand	8	30.98	N/A	BGS Logs ⁴
TQ05NE97	Land proposed for replacement Land	508740, 157710	Sand	11.05	41.2	N/A	BGS Logs ⁴
TQ05NE325	Western limb of scheme	506125, 159967	Sand with organic matter	11	15.15	N/A	BGS Logs ⁴

Name	Borehole location	Grid Ref	Unit screened	Borehole depth (mbgl)	Groundwater strike (mAOD)	Date of measurement	Data source
TQ05NE300	Western limb of scheme	506380, 159740	Clayey silty sand	15	11.71	May 1992	BGS Logs ⁴
TQ05NE34	Western limb of scheme	506570, 159760	Terrace gravel	15	15.4	N/A	BGS Logs ⁴
TQ05NE343	Chertsey	506775, 159587	Below a clay band in Sand	27.5	15.15	N/A	BGS Logs ⁴
TQN05NE167	Chertsey	507494, 159398	Silty sand	15.1	17.15	N/A	BGS Logs ⁴

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