

Option ID	Option Name	Environmental: Environmental Benefit	Environmental: Disbenefit	Environmental: Natural Capital	Environmental: Biodiversity Net Gain	Environmental: Biodiversity Net Gain above target	Social: Customer Preference	Resilience: Reliability R1 - Uncertainty of option supply/demand benefit	Resilience: Reliability R3 - Risk of failure of planned service due to other physical vulnerability	Resilience: Reliability R5 - Ctachment/raw water quality risks (inc. climate change)	Resilience: Reliability R6 - Capacity of catchment services	Resilience: Reliability R7 - Risk of failure of planned service due to exceptional events	Resilience: Reliability R8 - Improvements to soil health	Resilience: Adaptability A3 - Operational adaptability and complexity	Resilience: Adaptability A7 - Customer engagement with demand restrictions	Resilience: Evolvability E1 - Scalability and modularity of proposed changes	Resilience: Evolvability E2 - Intervention Lead Times	Resilience: Evolvability E3 - Reliance on external bodies to deliver changes
DESALINATION																		
TWU_LON_HI-DES_ALL_CNO_beckton desal 150	Beckton Desalination - 150 MI/d - Construction	8.00	- 24.00				1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_CNO_beckton desal 100p1	Beckton Desalination - Phase 1: 100 MI/d - Construction	8.00	- 24.00				1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_CNO_beckton desal 50 p1	Beckton Desalination - Phase 1: 50 MI/d - Construction	4.00	- 24.00				1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_ALL_beckton desal 50p2a	Beckton Desalination - Phase 2a: 50 MI/d Enhanced	4.00	- 24.00				1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_ALL_beckton desal 50p2b	Beckton Desalination - Phase 2b: 50 MI/d Enhanced	4.00	- 24.00				1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_ALL_crossnessdesal100p2	Crossness Desalination (Blended) - 100MI/d Enhanced	8.00	- 22.00	- 139.66	- 126.10	- 141.19	1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_ALL_crossnessdesal50p2	Crossness Desalination (Blended) - 50MI/d Enhanced	4.00	- 23.00	- 139.66	- 126.10	- 141.19	1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_CNO_crossnessdesal100p1	Crossness Desalination (Blended) - Phase 1: 100 MI/d - Construction	8.00	- 24.00	- 139.66	- 126.10	- 141.19	1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
TWU_LON_HI-DES_ALL_CNO_crossnessdesal50p1	Crossness Desalination (Blended) - Phase 1: 50 MI/d - Construction	4.00	- 24.00	- 139.66	- 126.10	- 141.19	1.01	4.00	2.00	3.00		1.00		1.00		3.00	1.00	2.00
DIRECT RIVER ABSTRACTION																		
TWU_STT_HI-RAB_RE1_ALL_p3-300-vyrnwy_50	300: Lake Vyrnwy stage 1 (25Mld - 0-25)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		2.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p4-300-vyrnwy_75	300: Lake Vyrnwy stage 2 (25Mld - 26-50)	1.00	- 4.00	- 4,109.25	17.21	0.31	1.12	3.00	3.00	2.71		3.00		2.00		2.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p7-300-vyrnwy_135_b	300: Lake Vyrnwy stage 4 (30Mld - 81-110)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		2.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p8-300-vyrnwy_155_b	300: Lake Vyrnwy stage 5 (30Mld - 111-140)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		2.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p6-300-shrewsbury_25	300: Lake Vyrnwy stage 7 (20Mld - 161-180)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		2.00	1.00	3.00
TWU_U7T_HI-RAB_RE1_ALL_p1-300-unsupported	300: Unsupported flow	21.00	- 55.00	- 72,907.97	112.99	5.82	1.12	3.00	3.00	2.71		3.00		2.00		2.00	5.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p3-400-vyrnwy_50	400: Lake Vyrnwy stage 1 (25Mld - 0-25)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		3.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p4-400-vyrnwy_75	400: Lake Vyrnwy stage 2 (25Mld - 26-50)	1.00	- 4.00	- 4,109.25	17.21	0.31	1.12	3.00	3.00	2.71		3.00		2.00		3.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p7-400-vyrnwy_135_b	400: Lake Vyrnwy stage 4 (30Mld - 81-110)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		3.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p8-400-vyrnwy_155_b	400: Lake Vyrnwy stage 5 (30Mld - 111-140)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		3.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p6-400-shrewsbury_25	400: Lake Vyrnwy stage 7 (20Mld - 161-180)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		3.00	1.00	3.00
TWU_U7T_HI-RAB_RE1_ALL_p1-400-unsupported	400: Unsupported flow	21.00	- 55.00	- 72,907.97	112.99	5.82	1.12	3.00	3.00	2.71		3.00		2.00		3.00	5.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p3-500-vyrnwy_50	500: Lake Vyrnwy stage 1 (25Mld - 0-25)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		4.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p4-500-vyrnwy_75	500: Lake Vyrnwy stage 2 (25Mld - 26-50)	1.00	- 4.00	- 4,109.25	17.21	0.31	1.12	3.00	3.00	2.71		3.00		2.00		4.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p7-500-vyrnwy_135_b	500: Lake Vyrnwy stage 4 (30Mld - 81-110)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		4.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p8-500-vyrnwy_155_b	500: Lake Vyrnwy stage 5 (30Mld - 111-140)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		4.00	1.00	3.00
TWU_STT_HI-RAB_RE1_ALL_p6-500-shrewsbury_25	500: Lake Vyrnwy stage 7 (20Mld - 161-180)	-	-	-	-	-	1.12	3.00	3.00	2.71		3.00		2.00		4.00	1.00	3.00
TWU_U7T_HI-RAB_RE1_ALL_p1-500-unsupported	500: Unsupported flow	21.00	- 55.00	- 72,907.97	112.99	5.82	1.12	3.00	3.00	2.71		3.00		2.00		4.00	5.00	3.00
TWU_TED_HI-RAB_RE1_CNO_teddington dra 100	Teddington DRA 100 MLD - Construction	7.00	- 17.00				1.12	2.00	3.00	2.71		3.00		2.00		3.00	2.00	1.00
TWU_TED_HI-RAB_RE1_CNO_teddington dra 50	Teddington DRA 50 MLD - Construction	7.00	- 17.00				1.12	2.00	3.00	2.71		3.00		2.00		3.00	2.00	1.00
TWU_TED_HI-RAB_RE2_ALL_teddington dra 50 p2	Teddington DRA 50 MLD Phase 2						1.12	2.00	3.00	1.71		3.00		3.00		3.00	3.00	3.00
GROUNDWATER																		
TWU_SWX_HI-GRW_ALL_ALL_ashton keynes roc	Ashton Keynes borehole pumps - Removal of Constraints to DO	1.00	- 19.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	5.00	3.00
TWU_LON_HI-GRW_RE1_ALL_ashortonkirby	ASR Horton Kirby	3.00	- 15.00	- 38.66	- 6.94	- 8.45	1.17	1.00	2.00	3.00		3.00		3.00		4.00	3.00	3.00
TWU_GUI_HI-GRW_ALL_ALL_dapdune lic disagg	Dapdune Licence Disaggregation	1.00	- 2.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	5.00	3.00
TWU_GUI_HI-GRW_ALL_ALL_dapdune roc	Dapdune Licence Disaggregation	2.00	- 12.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_SWA_HI-GRW_ALL_ALL_datchet do	Datchet Increase DO	1.00	- 14.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_SWA_HI-GRW_ALL_ALL_dorney do	Dorney Increase DO	2.00	- 14.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_KVZ_HI-GRW_ALL_ALL_east woodhay roc	East Woodhay borehole pumps Removal of Constraints to DO	1.00	- 5.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_LON_HI-GRW_ALL_ALL_addington gw	Groundwater Addington	2.00	- 15.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_LON_HI-GRW_ALL_ALL_honor oak gw	GW – Honor Oak	1.00	- 14.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_LON_HI-GRW_ALL_ALL_honoroak do	Honor Oak Increase DO	2.00	- 12.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_LON_HI-GRW_ALL_CNO_kidbrooke slars	Kidbrooke Aquifer Recharge/Aquifer Storage and Recovery (SLARS1) - Construction	2.00	- 19.00				1.17	1.00	2.00	3.00		3.00		3.00		4.00	2.00	3.00
TWU_LON_HI-GRW_ALL_ALL_london conchalk	London Confined Chalk (north)	2.00	- 14.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_LON_HI-GRW_ALL_CNO_merton ar	Merton Aquifer Recharge (SLARS3) - Construction	1.00	- 15.00				1.17	1.00	2.00	3.00		3.00		3.00		4.00	2.00	3.00
TWU_LON_HI-GRW_ALL_ALL_merton recommission	Merton Recommissioning	2.00	- 12.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_KVZ_HI-GRW_ALL_ALL_mortimer recomm	Mortimer Disused Source (Recommission)	1.00	- 4.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_SWX_HI-GRW_ALL_ALL_moulsford gw	Moulsford 1	1.00	- 17.00				1.17	2.00	3.00	3.00		3.00		3.00		3.00	4.00	3.00
TWU_LON_HI-GRW_ALL_ALL_addington asr	South East London (Addington) Aquifer Storage and Recovery	1.00	- 10.00				1.17	1.00	2.00	3.00		3.00		2.00		4.00	1.00	2.00
TWU_LON_HI-GRW_ALL_ALL_s'fleet lic disagg	Southfleet/Greenhithe (new WTW)	1.00	- 12.00	- 35.71	- 15.92	- 19.64	1.17	2.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_LON_HI-GRW_ALL_ALL_streatham ar	Streatham Aquifer Recharge (SLARS2)	1.00	- 9.00				1.17	1.00	2.00	3.00		3.00		3.00		4.00	3.00	3.00
TWU_SWA_HI-GRW_ALL_ALL_taplowincreasedo	Taplow Increase DO	1.00	- 17.00				1.17	1.00	3.00	3.00		3.00		3.00		3.00	3.00	3.00
TWU_LON_HI-GRW_ALL_ALL_thames valley asr	Thames Valley Central Aquifer Storage and Recovery	3.00	- 15.00	- 365.68	- 26.81	- 30.99	1.17	1.00	2.00	3.00		3.00		2.00		4.00	1.00	2.00

TWU_SWX_HI-GRW_ALL_ALL_woods farm do	Woods Farm Increase DO	2.00	-	16.00	-	85.40	-	11.91	-	14.66	1.17	2.00	3.00	3.00		3.00		3.00	3.00	3.00
INTER COMPANY TRANSFERS																				
TWU_STT_HI-TFR_STT_ALL_stt-sesro c1	STT-SESRO Link C1	1.00	-	2.00	-	-	-	0.22	-	0.85	1.17	-	-	-	-	-	-	-	-	-
TWU_STT_HI-TFR_STT_ALL_stt-sesro c2	STT-SESRO Link C2	1.00	-	2.00	-	-	-	0.22	-	0.85	1.17	-	-	-	-	-	-	-	-	-
TWU_STT_HI-TFR_STT_ALL_stt-sesro p1	STT-SESRO Link P1	1.00	-	2.00	-	-	-	0.22	-	0.85	1.17	-	-	-	-	-	-	-	-	-
TWU_STT_HI-TFR_STT_ALL_stt-sesro p2	STT-SESRO Link P2	1.00	-	2.00	-	-	-	0.22	-	0.85	1.17	-	-	-	-	-	-	-	-	-
INTER ZONAL TRANSFERS																				
TWU_LON_EF-TFR_REP_ALL_cheammertres	Cheam to Merton - London Ring Main										1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_SES_ALL_cheam-merton	Cheam to Merton - London Ring Main										1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_HEN_ALL_henley-swa2.4	Henley to SWA - 2.4 MI/d	1.00	-	11.00	-	1,151.52	-	8.58	-	14.15	1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_HEN_ALL_henley-swa5	Henley to SWA – 5 MI/d	2.00	-	12.00	-	1,151.52	-	8.58	-	14.15	1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_HI-TFR_HEN_ALL_henley-swox2.4	Henley to SWOX – 2.4 MI/d	2.00	-	9.00	-	5,432.95	-	18.70	-	24.08	1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_HI-TFR_HEN_ALL_henley-swox5	Henley to SWOX – 5 MI/d	1.00	-	15.00	-	893.97	-	83.43	-	94.51	1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_EF-TFR_REP_ALL_kennetvresource	Kennet Valley resource										1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_HI-TFR_KVZ_ALL_kennet-swox2.3	Kennet Valley to SWOX - 2.3 MI/d	1.00	-	16.00	-	4,089.00	-	22.81	-	29.91	1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_HI-TFR_KVZ_ALL_kennet-swox6.7	Kennet Valley to SWOX - 6.7 MI/d	1.00	-	13.00	-	1,208.02	-	56.52	-	67.25	1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_ALL_nrv-groundimprov	New River Head - Ground improvements										1.17	-	-	-	-	-	-	-	-	-
TWU_GUI_EF-TFR_REP_ALL_reigatetoguires	Potable Resource for Reigate to Guildford transfer										1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_EF-TFR_REP_ALL_henleytoswaresource	Potential Henley resource for SWA										1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_EF-TFR_REP_ALL_henleytoswoxresource	Potential Henley resource for SWOX										1.17	-	-	-	-	-	-	-	-	-
TWU_GUI_EF-TFR_REP_ALL_sewtogui res	Potential resource for SEW to Guildford transfer										1.17	-	-	-	-	-	-	-	-	-
TWU_LON_EF-TFR_REP_ALL_hontolonres	Potential Resource in Honor Oak for London										1.17	-	-	-	-	-	-	-	-	-
TWU_HON_EF-TFR_REP_ALL_lontohonres	Potential Resource in London to Honor Oak										1.17	-	-	-	-	-	-	-	-	-
TWU_GUI_HI-TFR_SES_ALL_reigatetoguildford20	Reigate to Guildford 20MI/d	1.00	-	13.00	-	1,109.07	-	26.19	-	43.86	1.17	-	-	-	-	-	-	-	-	-
TWU_GUI_HI-TFR_SES_ALL_reigatetoguildford5	Reigate to Guildford 5MI/d	1.00	-	13.00	-	1,109.07	-	26.19	-	43.86	1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_ALL_newriverhead pump 4	Replace New River Head Pump	8.00	-	5.00							1.17	-	-	-	-	-	-	-	-	-
TWU_GUI_HI-TFR_RZ4_ALL_sewtogui	SouthEast Water to Guildford										1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_EF-TFR_REP_ALL_swoxexportn	SWOX SWA North Export										1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_SWX_ALL_swoxswa48	SWOX to SWA (Abingdon WTW to Long Crendon to supply SWA)	4.00	-	16.00	-	1,227.90	-	240.45	-	292.85	1.17	-	-	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_SWX_ALL_swoxswa72	SWOXSWA72 (Abingdon to north SWA)	8.00	-	16.00	-	3,686.77	-	99.63	-	135.26	1.17	-	-	-	-	-	-	-	-	-
TWU_KEM_EF-TFR_RE1_ALL_tedd-kempton res	Teddington to Kempton (displacement of water) resource										1.17	-	-	-	-	-	-	-	-	-
TWU_LON_EF-TFR_REP_ALL_woodepsomres	Woodmansterne WTW to Epsom Downs										1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_SES_ALL_woodwtw-epsomdowns	Woodmansterne WTW to Epsom Downs										1.17	-	-	-	-	-	-	-	-	-
NETWORK REINFORCEMENT																				
TWU_LON_HI-TFR_LON_CNO_beckton-coppermills	Beckton to Coppermills tunnel (treated) - Construction	8.00	-	21.00							1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_CNO_beckton-crossness	Beckton to Crossness transfer - Construction	8.00	-	23.00							1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_brookps-hoddeson	Brookfield Lane (Cheshunt) PS to Hoddeson SR										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_copperwtw-woodford	Coppermills Tunnel to Woodford										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_coppertofinsparkfmz	Coppermills WTW to Finsbury Park FMZ										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_CNO_crossness-beckton	Crossness to Beckton tunnel (treated) - Construction	8.00	-	17.00							1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_kemptonwtw-hampton	Kempton WTW to Hampton Shaft										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_kemptonwtw-merton	Kempton WTW to Merton Shaft										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_merton-hampton	Merton Shaft to Hampton 36" FMZ"										1.46	-	-	-	-	-	-	-	-	-
TWU_WLJ_HI-ROC_NET_CNO_twrn shaft kempton	New shaft on the TWRM at Kempton (NET-TWRM-KEM) - Construction	8.00	-	13.00							1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_barrowhillpump	Replace pump infrastructure at Barrow Hill	4.00	-	3.00							1.46	-	-	-	-	-	-	-	-	-
TWU_KEM_HI-TFR_TED_ALL_tedd-kempton	Teddington to Kempton (displacement of water)										1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_battersea-nunhead	TWRM Battersea Shaft to Nunhead Lower SR										1.46	-	-	-	-	-	-	-	-	-
TWU_HON_HI-ROC_NET_CNO_cop'mills-honoroak	TWRM extension - Coppermills to Honor Oak - Construction	8.00	-	18.00							1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_CNO_hampton-battersea	TWRM extension - Hampton to Battersea - Construction	8.00	-	17.00							1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_twrn ht-coppermills	TWRM level controlled by new header tank and pumping station at Coppermills WTW	1.00	-	22.00							1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_parklanetopotneyps	TWRM Park Lane Shaft to Putney Pumping Station										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_streathamtonorwood	TWRM Streatham shaft to Norwood										1.46	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_NET_ALL_woodford-chigwell	Woodford PS to Chigwell SR										1.46	-	-	-	-	-	-	-	-	-
RAW WATER CONVEYANCE																				
TWU_SWX_HI-TFR_STR_ALL_abing-farmoor pipe	Abingdon to Farmoor Reservoir pipeline (CON-RWS-ABI-FMR)	1.00	-	14.00	-	53.00	-	92.29	-	111.11	1.17	-	-	-	-	-	-	-	-	-
TWU_WLJ_HI-TFR_WLJ_CNO_qm res-kempton wtw	Additional conveyance from Queen Mary Reservoir to Kempton WTW - Construction	9.00	-	13.00	-	588.45	-	5.57	-	7.85	1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_HI-TFR_KGV_ALL_beckton to lockwood	Beckton to Lockwood Tunnel					1.21	-	0.69	-	1.10	1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_ALL_ch'ford s intake	Chingford South (above Chingford Mill) intake capacity increase	8.00	-	24.00							1.17	-	-	-	-	-	-	-	-	-
TWU_STT_HI-IMP_STT_CNO_sttcanal300(min)	Cotswold Canal 300 MI/d (Do Min) - with treatment - Construction										1.03	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_ALL_datchet int-qm	Datchet intake capacity increase with transfer to Queen Mother and Wraybury Reservoirs	4.00	-	20.00							1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_HI-TFR_TED_ALL_teddingtondrated/tlt	Direct River Abstraction - Teddington to Thames Lee Tunnel Shaft 100 MLD					119.67	-	2.38	-	2.61	1.17	-	-	-	-	-	-	-	-	-
TWU_SWX_HI-TFR_SWX_ALL_dukescut-farmoor	Dukes Cut to Farmoor	2.00	-	11.00		-	-	65.04	-	77.80	1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_HI-TFR_KGV_ALL_kgv res intake	King George V Reservoir intake capacity increase	8.00	-	22.00							1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_HI-TFR_KGV_ALL_kgv res to bt	King George V Reservoir intake capacity increase	8.00	-	13.00							1.17	-	-	-	-	-	-	-	-	-

TWU_LON_HI-TFR_LON_ALL_littleton int-qm	Littleton intake capacity increase with transfer to Queen Mary	8.00	-	24.00				1.17	-	-	-	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_UTC_ALL_medmenham intake 53	Medmenham intake - 53	8.00	-	13.00	-	87.42	-	0.85	-	1.38	1.17	-	-	-	-	-	-	-
TWU_SWA_HI-TFR_UTC_ALL_medmenham intake 80	Medmenham intake - 80	8.00	-	19.00	-	87.42	-	0.85	-	1.38	1.17	-	-	-	-	-	-	-
TWU_TED_HI-TFR_TED_ALL_teddingtondramog/ted	Mogden to Teddington outfall 100 MI/d				-	1,269.92	-	15.09	-	16.86	1.17	-	-	-	-	-	-	-
TWU_WLJ_HI-TFR_WLJ_ALL_lowerthamesintake	New Lower Thames Intake - Surbiton								1.17	-	-	-	-	-	-	-	-	-
TWU_KVZ_HI-TFR_UTC_ALL_thamestofobney	River Thames to Fobney Transfer	4.00	-	18.00	-	24.97	-	15.21	-	17.64	1.17	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_CNO_second spine tunnel	Second Spine Tunnel from break tank to Reservoir 5 upstream of Coppermills WTW - Construction	8.00	-	20.00					1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_CNO_surbiton int-walton	Surbiton intake capacity increase with transfer to Walton inlet channel - Construction	8.00	-	16.00	-	38.25	-	1.20	-	1.82	1.17	-	-	-	-	-	-	-
TWU_WLJ_HI-TFR_WLJ_ALL_teddinqmreservoir	Teddington to QM Reservoir								1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_EF-TFR_RE1_ALL_ted/tlt resource	Teddington to TLT Resource								1.17	-	-	-	-	-	-	-	-	-
TWU_KGV_HI-TFR_KGV_ALL_lockwood ps-kgv res	TLT extension from Lockwood PS to King George V Reservoir intake								1.17	-	-	-	-	-	-	-	-	-
TWU_LON_HI-TFR_LON_CNO_tlt upgrade - roc	TLT upgrade to remove existing constraints to maximise transfer capacity - Construction	8.00	-	18.00					1.17	-	-	-	-	-	-	-	-	-
TWU_WLJ_HI-TFR_WLJ_ALL_walton-qmreservoir	Walton to QM Reservoir								1.17	-	-	-	-	-	-	-	-	-
RAW WATER PURCHASE																		
TWU_LON_HI-OTH_ALL_ALL_didcot purchase	Didcot Raw Water Purchase								1.00	4.00	3.00	3.00		3.00		2.00	4.00	5.00
RAW WATER TRANSFER																		
TWU_STT_HI-REU_RE1_ALL_p7-300-minworth_115	300: Minworth STW effluent diversion (115Mld) - phase 1	-	-	8.00	-	22,461.97	34.30	1.55	1.15	3.00	2.00	2.71		3.00		1.00	2.00	1.00
TWU_STT_HI-REU_RE1_ALL_p5-300-neth_p35	300: Netheridge STW effluent diversion (35Mld) - Deerhurst Pipeline	-	-	4.00	-	12,471.62	52.77	1.14	1.15	3.00	2.00	2.71		2.00		1.00	2.00	1.00
TWU_STT_HI-REU_RE1_ALL_p7-400-minworth_115	400: Minworth STW effluent diversion (115Mld) - phase 1	-	-	8.00	-	22,461.97	34.30	1.55	1.15	3.00	2.00	2.71		3.00		1.00	3.00	1.00
TWU_STT_HI-REU_RE1_ALL_p5-400-neth_p35	400: Netheridge STW effluent diversion (35Mld) - Deerhurst Pipeline	-	-	4.00	-	12,471.62	52.77	1.14	1.15	3.00	2.00	2.71		2.00		1.00	3.00	1.00
TWU_STT_HI-REU_RE1_ALL_p7-500-minworth_115	500: Minworth STW effluent diversion (115Mld) - phase 1	-	-	8.00	-	22,461.97	34.30	1.55	1.15	3.00	2.00	2.71		3.00		1.00	4.00	1.00
TWU_STT_HI-REU_RE1_ALL_p5-500-neth_p35	500: Netheridge STW effluent diversion (35Mld) - Deerhurst Pipeline	-	-	4.00	-	12,471.62	52.77	1.14	1.15	3.00	2.00	2.71		2.00		1.00	4.00	1.00
TWU_STT_HI-RAB_RE1_ALL_c4-300-vyrnwy_50	Canal: Lake Vyrnwy stage 1 (25Mld - 0-25)	-	-	-	-	-	-	-	1.12	3.00	2.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-RAB_RE1_ALL_c5-300-vyrnwy_75	Canal: Lake Vyrnwy stage 2 (25Mld - 26-50)	2.00	-	10.00	-	4,109.25	17.21	0.31	1.12	3.00	2.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-RAB_RE1_ALL_c7-300-vyrnwy_135_b	Canal: Lake Vyrnwy stage 4 (30Mld - 81-110)	-	-	-	-	-	-	-	1.12	3.00	2.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-RAB_RE1_ALL_c8-300-vyrnwy_155_b	Canal: Lake Vyrnwy stage 5 (30Mld - 111-140)	-	-	-	-	-	-	-	1.12	3.00	2.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-RAB_RE1_ALL_c6-300-shrewsbury_25	Canal: Lake Vyrnwy stage 7 (20Mld - 161-180)	-	-	-	-	-	-	-	1.12	3.00	2.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-REU_RE1_ALL_c7-300-minworth_115	Canal: Minworth STW effluent diversion (115Mld) - phase 1	-	-	5.00	-	22,461.97	34.30	1.55	1.15	3.00	1.00	1.71		2.00		1.00	2.00	1.00
TWU_STT_HI-REU_RE1_ALL_c3-300-neth_c35	Canal: Netheridge STW effluent diversion (35Mld) - Cotswold Canals	-	-	-	-	12,471.62	52.77	1.14	1.15	3.00	1.00	1.71		2.00		1.00	2.00	1.00
TWU_U7T_HI-RAB_RE1_ALL_c1-300-unsupported	Canal: Unsupported flow	25.00	-	74.00	-	58,861.06	143.58	1.44	1.12	3.00	2.00	1.71		2.00		1.00	2.00	5.00
TWU_SWX_RE-DRP_ALL_ALL_dp-oxford canal-swox	DP-Oxford Canal-SWOX								1.00	1.00	3.00	1.43		3.00		2.00	2.00	5.00
TWU_UTC_HI-IMP_UTC_CNO_oxcanal-cropredy	Oxford Canal - Cropredy resource - Construction	3.00	-	33.00	-	1,722.25	-	286.94	-	497.56	1.03	3.00	2.00	2.71		2.00	2.00	2.00
TWU_SWX_HI-IMP_SWX_CNO_oxc-dukes cutswox	Oxford Canal - Duke's Cut (SWOX) - Construction	3.00	-	33.00	-	11,161.62	-	276.45	-	480.23	1.03	3.00	2.00	1.71		2.00	2.00	2.00
TWU_STT_HI-IMP_STT_CNO_sttpipe300(lon)	Raw Water Transfer Deerhurst to Culham 300 MI/d (Lon only) - Construction								1.03	-	-	-		-		-	-	-
TWU_STT_HI-IMP_STT_CNO_sttpipe400(lon)	Raw Water Transfer Deerhurst to Culham 400 MI/d (Lon only) - Construction								1.03	-	-	-		-		-	-	-
TWU_STT_HI-IMP_STT_CNO_sttpipe500(lon)	Raw Water Transfer Deerhurst to Culham 500 MI/d (Lon only) - Construction								1.03	-	-	-		-		-	-	-
RESERVOIRS																		
TWU_STR_HI-RSR_RE1_CNO_abingdon150(lon)	New Reservoir Abingdon 150 Mm3 - 283 MLD (Lon only) - Construction	50.00	-	52.00		1,533,830.00	1,603.14	1,023.94	1.26	3.00	4.00	2.71		4.00		4.00	1.00	1.00
TWU_STR_HI-RSR_RE1_CNO_abingdon30+100p1	New Reservoir Abingdon 30 +100 Mm3 Phase 1 - Construction	46.00	-	52.00		1,283,790.00	2,254.10	1,675.00	1.26	3.00	4.00	2.71		4.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE2_CNO_abingdon30+100p2	New Reservoir Abingdon 30 +100 Mm3 Phase 2 - Construction								1.26	3.00	4.00	2.71		4.00		4.00	1.00	1.00
TWU_STR_HI-RSR_RE1_CNO_abingdon80+42p1	New Reservoir Abingdon 80 + 42 Mm3 Phase 1 - Construction	46.00	-	52.00		1,420,800.00	1,900.44	1,321.34	1.26	3.00	4.00	2.71		4.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE2_CNO_abingdon80+42p2	New Reservoir Abingdon 80 + 42 Mm3 Phase 2 - Construction								1.26	3.00	4.00	2.71		4.00		4.00	1.00	1.00
TWU_STR_HI-RSR_RE1_CNO_abingdon100(lon)	Reservoir Abingdon 100 (Lon) - Construction	46.00	-	52.00		1,629,920.00	2,051.51	1,526.41	1.26	3.00	4.00	2.71		4.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE1_CNO_abingdon75(lon)	Reservoir Abingdon 75 (Lon) - Construction	46.00	-	52.00		1,662,030.00	2,282.16	1,779.59	1.26	3.00	4.00	2.71		4.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE1_CNO_abingdon125(lon)	Reservoir Abingdon 125 (Lon only) - Construction	46.00	-	52.00		1,576,010.00	1,784.83	1,223.07	1.26	3.00	4.00	2.71		4.00		4.00	1.00	1.00
TWU_STR_HI-RSR_RE1_CNO_res_marsh gibbon_3	Site 36 - Marsh Gibbon Reservoir 30 Mm3 - Construction	13.00	-	26.00	-	44,710.65	860.43	742.34	1.26	3.00	4.00	3.43		3.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE1_CNO_res_marshgibbon_2	Site 36 - Marsh Gibbon Reservoir 50 Mm3 - Construction	13.00	-	26.00	-	105,118.18	1,089.52	863.24	1.26	3.00	4.00	3.43		3.00		4.00	2.00	1.00
TWU_STR_HI-RSR_RE1_CNO_res_marshgibbon_1	Site 36 - Marsh Gibbon Reservoir 75 Mm3 - Construction	17.00	-	26.00	-	65,384.16	3,071.95	2,890.89	1.26	3.00	4.00	3.43		3.00		4.00	2.00	1.00
TWU_UTC_HI-RSR_RE1_CNO_res_chinnor_2	Site 41 - Chinnor Reservoir 30Mm3 - Construction	13.00	-	20.00	-	225,627.20	1,209.42	1,030.28	1.26	3.00	4.00	3.43		3.00		4.00	2.00	1.00
WATER REUSE																		
TWU_KGV_HI-REU_RE1_CNO_deephams reuse 46.5	Deephams Reuse – 46.5 MI/d, direct to KGV - Construction	4.00	-	16.00	-	140.19	-	12.34	-	13.97	1.15	4.00	2.00	2.57		1.00	3.00	2.00
TWU_KGV_HI-REU_RE1_CNO_deephams reuse 46.5b	Deephams Reuse – 46.5 MI/d, to TLT - Construction	4.00	-	17.00					1.15	4.00	2.00	2.57		1.00		1.00	3.00	2.00
TWU_KGV_HI-REU_RE1_CNO_reuse beckton 100	Reuse Beckton 100 MLD - Construction	11.00	-	33.00	-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	2.00
TWU_KGV_HI-REU_RE2_ALL_reuse beckton 100 p2	Reuse Beckton 100 MLD Enhanced				-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	3.00
TWU_KGV_HI-REU_RE1_CNO_reuse beckton 150	Reuse Beckton 150 MLD - Construction	11.00	-	33.00	-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	1.00
TWU_KGV_HI-REU_RE2_ALL_reuse beckton 150 p2	Reuse Beckton 150 MLD Enhanced				-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	3.00
TWU_KGV_HI-REU_RE1_CNO_reuse beckton 50	Reuse Beckton 50 MLD - Construction	7.00	-	33.00	-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	2.00
TWU_KGV_HI-REU_RE2_ALL_reuse beckton 50 p2	Reuse Beckton 50 MLD Enhanced				-	-	-	2.71	-	2.98	1.15	4.00	2.00	2.57		1.00	3.00	3.00
TWU_WLJ_HI-REU_RE1_CNO_reuse mogden 100 p1	Reuse Mogden 100 MLD Phase 1 - Construction	11.00	-	30.00	-	9,762.78	-	196.88	-	216.57	1.15	4.00	2.00	1.71		1.00	3.00	1.00
TWU_WLJ_HI-REU_RE2_ALL_reuse mogden 100 p2	Reuse Mogden 100 MLD Phase 2				-	9,762.78	-	196.88	-	216.57	1.15	4.00	2.00	1.71		1.00	3.00	3.00
TWU_WLJ_HI-REU_RE1_CNO_reuse mogden 50 p1	Reuse Mogden 50 MLD Phase 1 - Construction	7.00	-	30.00	-	9,762.78	-	196.88	-	216.57	1.15	4.00	2.00	1.71		1.00	3.00	1.00
TWU_WLJ_HI-REU_RE2_ALL_reuse mogden 50 p2	Reuse Mogden 50 MLD Phase 2				-	9,762.78	-	196.88	-	216.57	1.15	4.00	2.00	1.71		1.00	3.00	3.00
TWU_WLJ_HI-REU_RE1_ALL_reusemogdenssewer25	Reuse Mogden South Sewer Plant 25 MI/d								1.15	4.00	2.00	1.71		1.00		1.00	3.00	2.00
TWU_WLJ_HI-TFR_WLJ_ALL_reuse mogden/walton	Reuse Mogden to Walton 150 MLD				-	5,055.90	-	95.63	-	107.25	1.17	-	-	-	-	-	-	-

WATER TREATMENT WORKS																						
TWU_SWX_HI-ROC_WT2_ALL_abingdon wtw ph2	Abingdon WTW Enhanced	1.00	-	12.00	-	1,342.59	-	15.30	-	17.52	1.46	5.00	3.00	-		3.00		3.00	3.00	3.00		
TWU_SWX_HI-ROC_WT2_ALL_abingdon wtw ph2_rep_1	Abingdon WTW Enhanced	1.00	-	12.00	-	1,342.59	-	15.30	-	17.52	1.46	5.00	3.00	-		3.00		3.00	3.00	3.00		
TWU_SWX_HI-ROC_WT1_CNO_abingdon wtw ph1	Abingdon WTW Ph1 - Construction	1.00	-	12.00	-	1,342.59	-	15.30	-	17.52	1.46	5.00	3.00	-		3.00		3.00	3.00	3.00		
TWU_LON_HI-LRE_WT1_ALL_copperrtwmecana200	Coppermills WTW - Mecana 200MI/d	1.00	-	27.00		-		-	0.02	2.00	4.00	3.00	3.00	-		2.00		2.00	3.00	2.00	3.00	
TWU_LON_HI-LRE_WT1_ALL_copperrtwmecana480	Coppermills WTW - Mecana 480MI/d	1.00	-	27.00		-		-	0.02	2.00	4.00	3.00	3.00	-		2.00		2.00	3.00	2.00	3.00	
TWU_LON_HI-LRE_WT1_ALL_copperrtwmecana680	Coppermills WTW - Mecana 680MI/d	1.00	-	27.00		-		-	0.02	2.00	4.00	3.00	3.00	-		2.00		2.00	3.00	2.00	3.00	
TWU_LON_HI-ROC_WT2_ALL_eastlondonwtw100p2	East London WTW - 100 Enhanced	8.00	-	21.00							1.46	5.00	3.00	-		3.00		3.00		3.00	2.00	3.00
TWU_LON_HI-ROC_WT1_CNO_eastlondonwtw100p1	East London WTW - 100 P1 - Construction	8.00	-	21.00							1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_CNO_eastlondonwtw150	East London WTW - 150 - Construction	8.00	-	21.00							1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_CNO_eastlondonwtw200	East London WTW - 200 - Construction	8.00	-	21.00							1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_CNO_eastlondonwtw300	East London WTW - 300 - Construction	8.00	-	21.00							1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_ALL_eastlonwtwexisting	East London WTW - existing drought capacity										1.46	-	-	-	-	-	-	-	-	-	-	-
TWU_LON_HI-ROC_WT2_ALL_kemptonwtw100 p2	Kempton - 100 Enhanced	9.00	-	17.00	-	6,342.68	-	148.17	-	168.63	1.46	5.00	3.00	-		3.00		3.00		3.00	2.00	3.00
TWU_LON_HI-ROC_WT1_CNO_kemptonwtw100 p1	Kempton - 100 Phase 1 - Construction	9.00	-	17.00	-	797.13	-	135.77	-	151.51	1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_CNO_kemptonwtw150	Kempton - 150 - Construction	9.00	-	17.00	-	797.13	-	135.77	-	151.51	1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_LON_HI-ROC_WT1_CNO_kemptonwtw300	Kempton - 300 - Construction	9.00	-	21.00	-	797.13	-	135.77	-	151.51	1.46	5.00	3.00	-		3.00		3.00		3.00	1.00	3.00
TWU_SWA_HI-ROC_WT2_ALL_medmenhamwtw ph2	Medmenham WTW Enhanced	3.00	-	30.00	-	2,340.55	-	15.56	-	20.56	1.46	5.00	3.00	-		3.00		3.00		3.00	3.00	3.00
TWU_SWA_HI-ROC_WT1_CNO_medmenhamwtw ph1	Medmenham WTW Ph1 - Construction	3.00	-	30.00	-	2,340.55	-	15.56	-	20.56	1.46	5.00	3.00	-		3.00		3.00		3.00	3.00	3.00
TWU_SWX_HI-ROC_WT2_ALL_radcotwtwenhanced	Radcot WTW Enhanced Phase	1.00	-	13.00	-	1,143.34	-	48.52	-	62.78	1.46	5.00	3.00	-		3.00		3.00		3.00	3.00	3.00
TWU_SWX_HI-ROC_WT1_ALL_radcotwtw	Radcot WTW Phase 1	1.00	-	13.00	-	1,299.91	-	17.67	-	27.93	1.46	5.00	3.00	-		3.00		3.00		3.00	3.00	3.00