

July 2020

RAG 4.09 – Guideline for the table definitions in the annual performance report

Tables 5A, 6A and 6B only

Update to consultation version

This document sets out the revised line definitions for our proposed tables 5A, 6A and 6B. The version published in June was incorrect and did not correspond with the published excel tables.

Additionally we have included a revised table 6A which includes a new line (line 5) which was omitted in error in June.

Pro forma 5A: Non-financial data for the 12 months ended 31st March 20xx - water resources

Water resources		
5A.1	Water from impounding reservoirs	Water from impounding (gravity fed) reservoirs, including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. See RAG 4 – Appendix 2 (Water resources further guidance)
5A.2	Water from pumped storage reservoirs	Water from pumped storage reservoirs including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources. Pumped storage reservoirs will receive an element of gravity flow. If this flow makes a material contribution (>20%) to the volume of the reservoir the distribution input from this source should be allocated proportionally between the two reservoir types. When reporting source numbers the source should be allocated according to the type of flow that delivers the larger part of the reservoir's input. For example, if 60% of the reservoir's volume is pumped river water the source should be counted as a pumped storage source. See RAG 4 – Appendix 2 (Water resources further guidance)
5A.3	Water from river abstractions	Water from river abstractions including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources. See RAG 4 – Appendix 2 (Water resources further guidance)
5A.4	Water from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Water from groundwater works including bulk supply, but excluding managed aquifer recharge (MAR) water supply schemes. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.
5A.5	Water from artificial recharge (AR) water supply schemes	Water from AR supply schemes including bulk supply. AR schemes are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer before or after abstraction. The water abstracted

		is not necessarily the water that has been recharged, so the water can be of natural quality and require more complex treatment. This excludes aquifer storage and recovery (ASR) water supply schemes (see line below)
5A.6	Water from aquifer storage and recovery (ASR) water supply schemes	Water from ASR supply schemes including bulk supply. ASR schemes are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer, storing that water and maintaining its quality. The aim is to enable simple and less costly treatment of the re-abstracted water, and that the water recharged is predominantly the water that is re- abstracted. This excludes artificial recharge (AR) water supply schemes (see line above)
5A.7	Water from saline abstractions	Water from saline abstractions including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources.
5A.8	Water from water reuse schemes	Water from reuse schemes. Direct effluent reuse, not returned to the environment.
5A.9	Number of impounding reservoirs	Number of sources of impounding reservoirs. Please refer to additional guidance in line 17 relating to number of sources.
5A.10	Number of pumped storage reservoirs	Number of sources of pumped storage reservoirs. Please refer to additional guidance in line 17 relating to number of sources. Pumped storage reservoirs will receive an element of gravity flow. The source should be allocated according to the type of flow that delivers the larger part of the reservoir's input. For example, if 60% of the reservoir's volume is pumped river water the source should be counted as a pumped storage source.
5A.11	Number of river abstractions	Number of sources of river abstractions. Please refer to additional guidance in line 17 relating to number of sources.
5A.12	Number of groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Number of sources of groundwater works, excluding MAR water supply schemes. Please refer to additional guidance in line 17 relating to number of sources.
5A.13	Number of artificial recharge (AR) water supply schemes	Number of sources of AR water supply schemes. Please refer to additional guidance in line 17 relating to number of sources.
5A.14	Number of aquifer storage and recovery (ASR) water supply schemes	Number of sources of ASR water supply schemes. Please refer to additional guidance in line 17 relating to number of sources.
5A.15	Number of saline abstraction schemes	Total number of sources of saline abstraction schemes. Please refer to additional guidance in line 17 relating to number of sources.
5A.16	Number of reuse schemes	Total number of reuse schemes. Please refer to additional guidance in line 17 relating to number of sources.
5A.17	Total number of sources	The total number of sources operated by a company.

		<p>This should equal the sum of lines 5A.9 to 5A.16.</p> <p>Subject to the relevant appendix in RAG4 a source is defined as an independent raw water supply that directly supplies a treatment works, such as impounding reservoirs, river abstractions, groundwater works, aquifer recharge water supply schemes, saline abstractions and reuse schemes. Standby or mothballed sources from which no water has been obtained in the year should not be included.</p>
5A.18	Total number of water reservoirs	All reservoirs used for holding raw water. This line shall include impounding reservoirs, pumped storage reservoirs and bank side storage facilities.
5A.19	Total volumetric capacity of water reservoirs	Total design/construction capacity of all reservoirs used for holding raw water. This line shall include impounding reservoirs, pumped storage reservoirs and bank side storage facilities.
5A.20	Total number of intake and source pumping stations	The total number of surface water intake, raw water transport and groundwater works source pumping stations associated with potable, non-potable and raw water systems. For the avoidance of doubt this is the number of sites as opposed to the number of individual pumps.
5A.21	Total installed power capacity of intake and source pumping stations	Total installed power of all abstraction pumpsets (duty, assist and standby - irrespective of the number that may be working at any one time) associated with raw water abstraction. Refer to RAG 2 Appendix 2 for proportional allocation.
5A.22	Total length of raw water abstraction mains and other conveyors	<p>The length of all mains or other conveyors associated with raw water abstraction between water resources defined assets (e.g. a river intake pumping station and a surface water reservoir) or between the sources or from source and the first water resource asset.</p> <p>Include all green coloured pipework in the examples given in Appendix 2 of RAG 4.</p>
5A.23	Average pumping head – raw water abstraction	Average pumping head for the raw water abstraction business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
5A.24	Total number of raw water abstraction imports	Total number of raw water abstraction import points. Points not used in the year should be included.
5A.25	Water imported from 3rd parties' raw water abstraction systems	The average daily water imported from 3rd parties raw water abstraction systems.
5A.26	Total number of raw water abstraction exports	Total number of raw water abstraction export points. Points not used should be included.
5A.27	Water exported to 3rd parties' from raw water abstraction systems	The average daily water exported to 3rd parties from raw water abstraction systems.
5A.28	Water resources capacity (measured using water resources yield)	<p>The company level water resources capacity, which should be the sum of all company water resource zones (WRZs) across all of its licensed areas.</p> <p>Capacity is measured in terms of water resources yield</p>

	which captures the average volume of water available from the environment and constrained by water resources control assets. See RAG 4 Appendix 2 for guidance on the calculation of water resources yield.
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When classifying the water into one of the categories, the following guidelines should be followed:

- Water abstracted from boreholes or springs and pumped directly to a treatment works should be classified as groundwater water.
- Water abstracted from a river and transported directly to a treatment works (either by pumping or by gravity) should be classified as river water.
- Water that is transported directly to a treatment works from a reservoir which has been filled by a river should be classified as water from reservoirs (this is because, in general, while the water is stored in the reservoir, sediments will settle making the water easier to treat).
- Water that is transported from a reservoir, via a river, to a treatment works should be classified as water from a river.

If multiple sources feed a works (for example a river and a number of boreholes) and the flow from these sources is combined prior to treatment, then all of the flow entering the works can be categorised as the more difficult to treat water. (In this example, all of the water would be categorised as river water.)

Pro forma 6A

Non-financial data for the 12 months ended 31st March 20xx - raw water transport, raw water storage and water treatment

	Units	Input	RAG 4 reference
Raw water transport, raw water storage and water treatment			
Total number of balancing reservoirs	nr	l	6A.1
Total volumetric capacity of balancing reservoirs	MI	l	6A.2
Total number of raw water transport stations	nr	l	6A.3
Total installed power capacity of raw water transport pumping stations	kW	l	6A.4
Total length of raw water transport mains and other conveyors	km	l	6A.5
Average pumping head ~ raw water transport	m.hd	l	6A.6
Total number of raw water transport imports	nr	l	6A.7
Water imported from 3rd parties' raw water transport systems	MI/d	l	6A.8
Total number of raw water transport exports	nr	l	6A.9
Water exported to 3rd parties' raw water transport systems	MI/d	l	6A.10
Total length of raw and pre-treated (non-potable) water transport mains for supplying customers	km	l	6A.11
Total water treated at all SW simple disinfection works	MI/d	l	6A.12
Total water treated at all SW1 works	MI/d	l	6A.13
Total water treated at all SW2 works	MI/d	l	6A.14
Total water treated at all SW3 works	MI/d	l	6A.15
Total water treated at all SW4 works	MI/d	l	6A.16
Total water treated at all SW5 works	MI/d	l	6A.17
Total water treated at all SW6 works	MI/d	l	6A.18
Total water treated at all GW simple disinfection works	MI/d	l	6A.19
Total water treated at all GW1 works	MI/d	l	6A.20
Total water treated at all GW2 works	MI/d	l	6A.21
Total water treated at all GW3 works	MI/d	l	6A.22
Total water treated at all GW4 works	MI/d	l	6A.23
Total water treated at all GW5 works	MI/d	l	6A.24
Total water treated at all GW6 works	MI/d	l	6A.25
Total water treated at more than one type of works	MI/d	l	6A.26
Total number of SW simple disinfection	nr	l	6A.27
Total number of SW1 works	nr	l	6A.28
Total number of SW2 works	nr	l	6A.29
Total number of SW3 works	nr	l	6A.30
Total number of SW4 works	nr	l	6A.31
Total number of SW5 works	nr	l	6A.32
Total number of SW6 works	nr	l	6A.33
Total number of GW simple disinfection works	nr	l	6A.34
Total number of GW1 works	nr	l	6A.35
Total number of GW2 works	nr	l	6A.36
Total number of GW3 works	nr	l	6A.37
Total number of GW4 works	nr	l	6A.38
Total number of GW5 works	nr	l	6A.39
Total number of GW6 works	nr	l	6A.40
Number of treatment works requiring remedial action because of raw water deterioration	nr	l	6A.41
Zonal population receiving water treated with orthophosphate	000's	l	6A.42
Average pumping head – water treatment	m.hd	l	6A.43
Band Disclosure (nr) WTWs in size band 1	nr	l	6A.44
Band Disclosure (nr) WTWs in size band 2	nr	l	6A.45
Band Disclosure (nr) WTWs in size band 3	nr	l	6A.46
Band Disclosure (nr) WTWs in size band 4	nr	l	6A.47
Band Disclosure (nr) WTWs in size band 5	nr	l	6A.48
Band Disclosure (nr) WTWs in size band 6	nr	l	6A.49
Band Disclosure (nr) WTWs in size band 7	nr	l	6A.50
Band Disclosure (nr) WTWs in size band 8	nr	l	6A.51
Band Disclosure (%) Proportion of total DI band 1	%	l	6A.52
Band Disclosure (%) Proportion of total DI band 2	%	l	6A.53
Band Disclosure (%) Proportion of total DI band 3	%	l	6A.54
Band Disclosure (%) Proportion of total DI band 4	%	l	6A.55
Band Disclosure (%) Proportion of total DI band 5	%	l	6A.56
Band Disclosure (%) Proportion of total DI band 6	%	l	6A.57
Band Disclosure (%) Proportion of total DI band 7	%	l	6A.58
Band Disclosure (%) Proportion of total DI band 8	%	l	6A.59
Total number of water treatment imports	nr	l	6A.60
Water imported from 3rd parties' water treatment works	MI/d	l	6A.61
Total number of water treatment exports	nr	l	6A.62
Water exported to 3rd parties' water treatment works	MI/d	l	6A.63

Pro forma 6A: Non-financial data for the 12 months ended 31st March 20xx - raw water transport, raw water storage and water treatment

Raw water transport, raw water storage and water treatment		
6A.1	Total number of balancing reservoirs	All reservoirs used for holding transported raw water. See RAG4 – Appendix 2 (Water resources further guidance)
6A.2	Total volumetric capacity of balancing reservoirs	Total design/construction capacity of all balancing reservoirs used for holding transported raw water.
6A.3	Total number of raw water transport stations	Total number of raw water transport stations. For the avoidance of doubt this is the number of sites as opposed to the number of individual pumps.
6A.4	Total installed power capacity of raw water transport pumping stations	Total installed power of all raw water transport pumpsets (duty, assist and standby – irrespective of the number that may be working at any one time)
6A.5	Total length of raw water transport mains and other conveyors	The length of all mains or other conveyors associated with raw water transport between water resources defined assets (e.g. a river intake pumping station and a surface water reservoir) and raw water storage and/or water treatment defined assets. Include all amber coloured pipework in the examples given in Appendix 2 of RAG 4.
6A.6	Average pumping head ~ raw water transport	Average pumping head for the raw water transport business unit as defined in RAG4 and RAG2. This is to be calculated using actual pumping head rather than the rating of the pumps.
6A.7	Total number of raw water transport imports	Total number of raw water transport import points. Points not used in the year should still be included.
6A.8	Water imported from 3rd parties' raw water transport systems	The average daily water imported from 3rd parties raw water transport systems.
6A.9	Total number of raw water transport exports	Total number of raw water transport export points. Points not used in the year should still be included.
6A.10	Water exported to 3rd parties' raw water transport systems	The average daily water exported to 3rd parties from raw water transport systems.
6A.11	Total length of raw and pre-treated (non-potable) water transport mains for supplying customers	The length of all dedicated raw and pre-treated (non-potable) water mains for supplying customers. Include; i) raw water and pre-treated (non-potable) mains which deliver non-potable water to the end customer or a 3rd party water company, and ii) partially treated water mains which deliver non-potable water to the end customer (e.g. industrial process water and fire-fighting mains) or a 3rd party water company. Exclude raw water abstraction and transport mains and other conveyors reported in 5A.22 and 6A.5, and raw and partially treated water mains that are situated within the boundaries of the water treatment works.
6A.12	Total water treated at all SW	The average daily distribution input derived from surface water works providing simple disinfection and

	simple disinfection works	pre-aeration only. Bulk supplies received should be included and bulk exports should be omitted.
6A.13	Total water treated at all SW1 works	The average daily distribution input derived from surface water works providing simple physical treatment only. Bulk supplies received should be included and bulk exports should be omitted.
6A.14	Total water treated at all SW2 works	The average daily distribution input derived from surface water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
6A.15	Total water treated at all SW3 works	The average daily distribution input derived from surface water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
6A.16	Total water treated at all SW4 works	The average daily distribution input derived from surface water works providing one of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.17	Total water treated at all SW5 works	The average daily distribution input derived from surface water works providing two or more of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.18	Total water treated at all SW6 works	The average daily distribution input derived from surface water works providing processes with extremely high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.19	Total water treated at all GW simple disinfection works	The average daily distribution input derived from surface water works providing simple disinfection and pre-aeration only. Bulk supplies received should be included and bulk exports should be omitted.
6A.20	Total water treated at all GW1 works	The average daily distribution input derived from ground water works providing simple physical treatment only. Bulk supplies received should be included and bulk exports should be omitted.
6A.21	Total water treated at all GW2 works	The average daily distribution input derived from ground water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
6A.22	Total water treated at all GW3 works	The average daily distribution input derived from ground water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6. Bulk supplies received should be included and bulk exports should be omitted.
6A.23	Total water treated at all GW4 works	The average daily distribution input derived from ground water works providing one of the processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.24	Total water treated at all GW5 works	The average daily distribution input derived from ground water works providing two or more of the

		processes with very high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.25	Total water treated at all GW6 works	The average daily distribution input derived from ground water works providing processes with extremely high operating costs. Bulk supplies received should be included and bulk exports should be omitted.
6A.26	Total water treated at more than one type of works	Where water is treated at more than one type of works shown in lines 6A.12 to 6A.25 above, the average daily input which is recorded more than once in rows 6A.12 to 6A.25 above, entered as a negative.
6A.27	Total number of SW simple disinfection works	Total number of surface water works providing simple disinfection and pre-aeration only
6A.28	Total number of SW1 works	Total number of surface water works providing simple physical treatment and/or blending only
6A.29	Total number of SW2 works	Total number of surface water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6
6A.30	Total number of SW3 works	Total number of surface water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6
6A.31	Total number of SW4 works	Total number of surface water works providing one of the processes with very high operating costs
6A.32	Total number of SW5 works	Total number of surface water works providing two or more of the processes with very high operating costs
6A.33	Total number of SW6 works	Total number of surface water works providing processes with extremely high operating costs
6A.34	Total number of GW simple disinfection works	Total number of ground water works providing simple disinfection and pre-aeration only
6A.35	Total number of GW1 works	Total number of ground water works providing simple physical treatment and/or blending only
6A.36	Total number of GW2 works	Total number of ground water works providing single stage complex physical or chemical treatment but excluding processes in W4, W5 & W6
6A.37	Total number of GW3 works	Total number of ground water works providing more than one stage of complex treatment but excluding processes in W4, W5 & W6
6A.38	Total number of GW4 works	Total number of ground water works providing one of the processes with very high operating costs
6A.39	Total number of GW5 works	Total number of ground water works providing two or more of the processes with very high operating costs
6A.40	Total number of GW6 works	Total number of ground water works providing processes with extremely high operating costs
6A.41	Number of treatment works requiring remedial action because of raw water deterioration	The number of water treatment works that require remedial action because of raw water deterioration. All works should be supported by the drinking water inspectorate (DWI) or in the case of planned activity be proposed to the DWI. The works should be included in the year the substantive activity is planned to take

		place.
6A.42	Zonal population receiving water treated with orthophosphate	Zonal population receiving water treated with orthophosphate, in thousands
6A.43	Average pumping head – water treatment	Average pumping head for the water treatment business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
6A.44	Band Disclosure (nr) WTWs in size band 1	Please disclose the number of WTW for each banding. See Additional Guidance
6A.45	Band Disclosure (nr) WTWs in size band 2	Please disclose the number of WTW for each banding. See Additional Guidance
6A.46	Band Disclosure (nr) WTWs in size band 3	Please disclose the number of WTW for each banding. See Additional Guidance
6A.47	Band Disclosure (nr) WTWs in size band 4	Please disclose the number of WTW for each banding. See Additional Guidance
6A.48	Band Disclosure (nr) WTWs in size band 5	Please disclose the number of WTW for each banding. See Additional Guidance
6A.49	Band Disclosure (nr) WTWs in size band 6	Please disclose the number of WTW for each banding. See Additional Guidance
6A.50	Band Disclosure (nr) WTWs in size band 7	Please disclose the number of WTW for each banding. See Additional Guidance
6A.51	Band Disclosure (nr) WTWs in size band 8	Please disclose the number of WTW for each banding. See Additional Guidance
6A.52	Band Disclosure (%) Proportion of total DI band 1	Please disclose the proportion (%) of total DI for band 1. See additional guidance below.
6A.53	Band Disclosure (%) Proportion of total DI band 2	Please disclose the proportion (%) of total DI for band 2. See additional guidance below.
6A.54	Band Disclosure (%) Proportion of total DI band 3	Please disclose the proportion (%) of total DI for band 3. See additional guidance below.
6A.55	Band Disclosure (%) Proportion of total DI band 4	Please disclose the proportion (%) of total DI for band 4. See additional guidance below.
6A.56	Band Disclosure (%) Proportion of total DI band 5	Please disclose the proportion (%) of total DI for band 5. See additional guidance below.
6A.57	Band Disclosure (%) Proportion of total DI band 6	Please disclose the proportion (%) of total DI for band 6. See additional guidance below.
6A.58	Band Disclosure (%) Proportion of total DI band 7	Please disclose the proportion (%) of total DI for band 7. See additional guidance below.
6A.59	Band Disclosure (%) Proportion of total DI band 8	Please disclose the proportion (%) of total DI for band 8. See additional guidance below.
6A.60	Total number of water treatment imports	Total number of water treatment import points. Points not used in the year should still be included.
6A.61	Water imported from 3rd parties' water treatment works	The average daily water imported from 3rd parties water treatment systems.
6A.62	Total number of water treatment	Total number of water treatment export points. Points not

	exports	used in the year should still be included.
6A.63	Water exported to 3rd parties' water treatment works	The average daily water exported to 3rd parties from water treatment systems.

For both groundwater and surface water, a works is here defined as **an individual location which receives raw or partially treated water for treatment (excluding secondary disinfection) and direct delivery to customers.**

If the output of a site needs to be blended so as to become potable, then that site in itself is not defined as a works. However, where the total treatment process is split between a number of sites the DI entering treated distribution should be split pro rata between bands based on the volumes treated at the individual sites. The pre-aeration of deep borehole water is included in category SD.

Companies should include water treatment works that have not been used in the year but have not been decommissioned and state in their commentary any instances where this is the case.

Categories of treatment types	Examples
SD: Works providing simple disinfection only	<ul style="list-style-type: none"> • Marginal chlorination • Pre-aeration
W1: Simple disinfection plus simple physical treatment and/or blending only	<ul style="list-style-type: none"> • Rapid gravity filtration • Slow sand filtration • Pressure filtration • Aeration (solvent removal)
W2: Single stage complex physical or chemical treatment	<ul style="list-style-type: none"> • Super chlorination • Coagulation • Flocculation
W3: More than one stage of complex treatment but excluding processes in W4, W5 or W6	<ul style="list-style-type: none"> • Biofiltration • pH correction • Softening
W4: Single stage complex physical or chemical treatment with significantly higher operating costs than in W2/ W3	<ul style="list-style-type: none"> • Membrane filtration (excluding desalination) • Ozone treatment • Activated carbon/ pesticide removal
W5: More than one stage of complex, high cost treatment	<ul style="list-style-type: none"> • UV treatment • Adsorption treatment
W6: Works with one or more very high cost processes	<ul style="list-style-type: none"> • Desalination • Re-use

Band Guidance 6A.33 to 6A.48

Size band	Maximum Production Capacity MI/d
Band 1	< 2
Band 2	≥ 2 and < 4
Band 3	≥4 and < 8
Band 4	≥8 and < 16
Band 5	≥16 and < 32
Band 6	≥32 and < 64
Band 7	≥64 and < 128
Band 8	≥ 128

Consultation

Pro forma 6B: Non-financial data for the 12 months ended 31st March 20xx – treated water distribution

Treated water distribution		
6B.1	Total length of potable mains as at 31 March	The total length of potable water mains on 31 March of report year
6B.2	Total length of potable mains relined	Total length of potable mains relined in report year. Include all spray applied lining.
6B.3	Total length of potable mains renewed	Total length of potable mains renewed in report year. Include mains whose prime purpose is renewal of an existing main, even where existing main remains in service (i.e. is not abandoned immediately on commissioning of new main). Include mains sleeving/pipe cracking/sliplining where used for this category of work.
6B.4	Total length of new potable mains	Total length of new potable mains laid in report year. Include new mains and mains renewals involving upsizing, whose prime justification is the requirement for additional capacity.
6B.5	Total length of potable water mains ($\leq 320\text{mm}$)	The length of all potable water mains less than or equal to 320mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies.
6B.6	Total length of potable water mains ($>320\text{mm}$ and $\leq 450\text{mm}$)	The total length of all potable water mains greater than 320mm up to and including 450mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies.
6B.7	Total length of potable water mains ($>450\text{mm}$ and $\leq 610\text{mm}$)	The total length of all potable water mains greater than 450mm up to and including 610mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies.
6B.8	Total length of potable water mains ($> 610\text{mm}$)	The length of all potable water mains greater than 610mm. Include all elements of trunk and distribution assets and system ancillaries. Include facilities intended for standby and emergency supplies.
6B.9	Total installed power capacity of potable water pumping stations	Total installed power of all potable treated water pumpsets (duty, assist and standby - irrespective of the number that may be working at any one time) associated with treated water distribution (into and within). Refer to RAG 2 Appendix 2 for proportional allocation.
6B.10	Total volumetric capacity of service reservoirs	The installed design/constructed capacity of treated water service reservoirs within the water supply system including treated water reservoirs at water treatment works and any secondary disinfection plant on reservoir sites. Include break pressure tanks. Exclude decommissioned assets.
6B.11	Total volumetric capacity of water towers	The installed design/constructed capacity of treated water storage towers within the water supply system.

		Exclude decommissioned assets.
6B.12	Distribution input	Distribution input is the average amount of potable water entering the distribution system. Please refer to the additional guidance for a diagrammatic representation of what this should include.
6B.13	Water delivered (non-potable)	All non-potable water supplied as part of the appointed business. Include all non-potable water charged at standard and non-standard rates.
6B.14	Water delivered (potable)	All potable water supplied as part of the appointed business. This includes: <ul style="list-style-type: none"> a) the average volume of water delivered for billed measured residential and businesses; b) the estimated volume of water delivered for billed unmeasured residential and business properties; c) supply pipe leakage; d) meter under registration for water delivered which is measured e) unbilled water taken legally for legitimate purposes (public supplies for which no charge is made e.g. some sewer flushing etc, uncharged church supplies, fire training and fire-fighting supplies where these are not charged irrespective of whether or not they are metered). Do not include volumes associated with leakage allowance rebates to metered customers; f) water taken illegally providing it is based on actual occurrences using sound and auditable identification and recording procedures (if not this should be treated as distribution losses and excluded from this line).
6B.15	Water delivered (billed measured residential properties)	Average volume of water delivered to residential properties which is measured (MI/d). This is to include supply pipe leakage and meter under-registration. Additional meters fitted to measured residential properties for ancillary supplies (e.g. external hosepipes) which are non-commercial are to be included, as should any fitted to unmeasured residential properties if this is how revenue is allocated. Exclude miscellaneous use (Distribution system operational use, water taken legally unbilled and water taken illegally unbilled).
6B.16	Water delivered (billed measured businesses)	Average volume of water delivered to businesses which is measured (MI/d). This is to include supply pipe leakage and meter under-registration. Additional meters fitted to measured businesses for ancillary supplies (e.g. external hosepipes) which are non-commercial are to be included, as should any fitted to unmeasured businesses if this is how revenue is allocated. Exclude miscellaneous use (Distribution system operational use, Water taken legally unbilled and Water taken illegally unbilled).
6B.17	Total annual leakage	Total annual leakage measures the sum of distribution losses and supply pipe losses in megalitres per day (MI/d). It includes any uncontrolled losses between the treatment works and the customer's stop tap. It does not include internal plumbing losses.

6B.18	Distribution losses	Distribution losses represent the losses on the company's potable water distribution system ie excluding supply pipe leakage, which is the customer's responsibility.
6B.19	Water taken unbilled	Total water taken unbilled (whether legally or illegally). Water used by the company for mains tests, flushing, washouts, running to waste, or incurred through burst mains or other leakage should be excluded.
6B.20	Proportion of distribution input derived from impounding reservoirs	Proportion of distribution input derived from impounding (gravity fed) reservoirs, including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources.
6B.21	Proportion of distribution input derived from pumped storage reservoirs	<p>Proportion of distribution input derived from pumped storage reservoirs including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.</p> <p>Pumped storage reservoirs will receive an element of gravity flow. If this flow makes a material contribution (>20%) to the volume of the reservoir the distribution input from this source should be allocated proportionally between the two reservoir types. When reporting source numbers the source should be allocated according to the type of flow that delivers the larger part of the reservoir's input. For example, if 60% of the reservoir's volume is pumped river water the source should be counted as a pumped storage source.</p>
6B.22	Proportion of distribution input derived from river abstractions	Proportion of distribution input derived from river abstractions including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.
6B.23	Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Proportion of distribution input derived from groundwater works including bulk supply, but excluding managed aquifer recharge (MAR) water supply schemes. Operational sources from which no water has been obtained in the report year should not be included in the number of sources. Please refer to additional guidance relating to number of sources.
6B.24	Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Proportion of distribution input derived from AR supply schemes including bulk supply. AR schemes are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer before or after abstraction. The water abstracted is not necessarily the water that has been recharged, so the water can be of natural quality and require more complex treatment. This excludes aquifer storage and recovery (ASR) water supply schemes (see line below).
6B.25	Proportion of distribution input derived from aquifer	Proportion of distribution input derived from ASR supply schemes including bulk supply. ASR schemes

	storage and recovery (ASR) water supply schemes	are a subset of managed aquifer recharge (MAR) schemes, which functions by recharging an aquifer, storing that water and maintaining its quality. The aim is to enable simple and less costly treatment of the re-abstracted water, and that the water recharged is predominantly the water that is re- abstracted. This excludes artificial recharge (AR) water supply schemes (see line above).
6B.26	Proportion of distribution input derived from saline abstractions	Proportion of distribution input derived from saline abstractions including bulk supply. Operational sources from which no water has been obtained in the report year should not be included in the number of sources.
6B.27	Proportion of distribution input derived from water reuse schemes	Proportion of distribution input derived from reuse schemes. Direct effluent reuse, not returned to the environment.
6B.28	Number of lead communication pipes	The total number of lead communication pipes within the undertaker's supply area.
6B.29	Number of galvanised iron communication pipes	The total number of galvanised iron communication pipes within the undertaker's supply area.
6B.30	Number of other communication pipes	The total number of other (excluding lead & galvanised iron) communication pipes within the undertaker's supply area.
6B.31	Total number of potable water pumping stations that pump into and within the treated water distribution system	The sum of owned and operated groundwater, surface water, re-pumping and import pumping stations that pump into and within the treated water distribution system (potable water).
6B.32	Number of potable water pumping stations delivering treated groundwater into the treated water distribution system	The number of potable water pumping stations delivering treated groundwater into the treated water distribution system. Groundwater stations are to be counted as 1, regardless if it has single lift or split lift / tandem pumping arrangements. Groundwater stations are to be counted as 1 for each separate site, where the pumped output is blended 'within' the treated water distribution system. See Example 3. Do not include stations where water enters the treated distribution system by gravity alone.
6B.33	Number of potable water pumping stations delivering surface water into the treated water distribution system	The number of potable water pumping stations delivering surface water into the treated water distribution system. Do not include stations where water enters the treated distribution system by gravity alone.
6B.34	Number of potable water pumping stations that re-pump water already within the treated water distribution system	The number of potable water pumping stations that re-pump water already within the treated water distribution system. Do not include single property boosters.
6B.35	Number of potable water pumping stations that pump water imported from a 3rd party supply into the	The number of potable water pumping stations that pump water imported from a 3rd party supply into the treated water distribution system. Do not include stations where water enters the treated

	treated water distribution system	distribution system by gravity alone.
6B.36	Total number of service reservoirs	The number of treated water service reservoirs within the water supply system including treated water reservoirs at water treatment works and any secondary disinfection plant on reservoir sites. Include break pressure tanks. Exclude decommissioned assets. A single structure divided into separate cells counts as one reservoir.
6B.37	Number of water towers	The number of treated water service towers within the water supply system. Exclude decommissioned assets.
6B.38	Total length of potable mains laid or structurally refurbished pre-1880	Total length of potable mains laid or structurally refurbished pre- 1880
6B.39	Total length of potable mains laid or structurally refurbished between 1881 and 1900	Total length of potable mains laid or structurally refurbished between 1881 and 1900
6B.40	Total length of potable mains laid or structurally refurbished between 1901 and 1920	Total length of potable mains laid or structurally refurbished between 1901 and 1920
6B.41	Total length of potable mains laid or structurally refurbished between 1921 and 1940	Total length of potable mains laid or structurally refurbished between 1921 and 1940
6B.42	Total length of potable mains laid or structurally refurbished between 1941 and 1960	Total length of potable mains laid or structurally refurbished between 1941 and 1960
6B.43	Total length of potable mains laid or structurally refurbished between 1961 and 1980	Total length of potable mains laid or structurally refurbished between 1961 and 1980
6B.44	Total length of potable mains laid or structurally refurbished between 1981 and 2000	Total length of potable mains laid or structurally refurbished between 1981 and 2000
6B.45	Total length of potable mains laid or structurally refurbished post 2001	Total length of potable mains laid or structurally refurbished post 2001
6B.46	Average pumping head – treated water distribution	Average pumping head for the treated water distribution business unit as defined in RAG 4 and RAG 2. This is to be calculated using actual pumping head rather than the rating of the pumps.
6B.47	Total number of treated water distribution imports	Total number of treated water distribution import points. Points not used in the year should be included.
6B.48	Water imported from 3rd parties' treated water distribution systems	The average daily water imported from 3rd parties treated water distribution systems.
6B.49	Total number of treated water	Total number of treated water distribution export points.

	distribution exports	Points not used in the year should still be included.
6B.50	Water exported to 3rd parties' treated water distribution systems	The average daily water exported to 3rd parties from treated water distribution systems.

Component analysis as a proportion of distribution input – not to scale

Distribution Input							
Distribution system		Customers' installations					
◀-----		-----▶					
		Water Delivered – billed measured residential	Water Delivered – billed measured business	Water Delivered – billed unmeasured residential	Water Delivered – billed unmeasured business	Water taken legally unbilled	Water taken illegally unbilled
		Water Delivered – billed measured		Water Delivered – billed unmeasured		Water taken unbilled	
		Water Delivered – billed					
Water not delivered		Water Delivered to customers					
Distribution system operational use	Distribution Losses	Underground supply pipe losses	Total plumbing losses		Customer use		
			Above ground supply pipe losses	Internal plumbing losses			
Total leakage		Consumption					

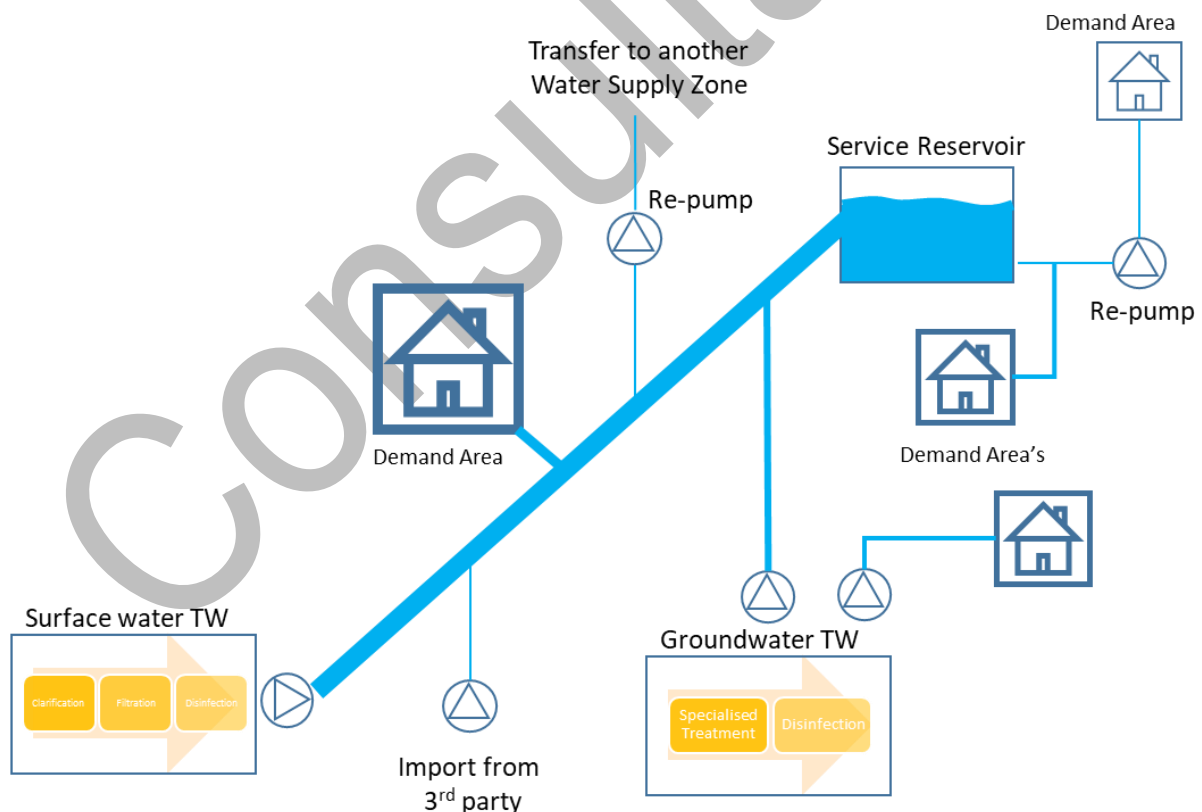
The proportions entered in lines 6B.20 to 6B.27 should sum to unity. The proportion of water in each source category is a measure of how difficult a company's water is to treat. When classifying the water into one of the categories, the following guidelines should be followed:

- Water abstracted from boreholes or springs and pumped directly to a treatment works should be classified as groundwater water.
- Water abstracted from a river and transported directly to a treatment works (either by pumping or by gravity) should be classified as river water.
- Water that is transported directly to a treatment works from a reservoir which has been filled by a river should be classified as water from reservoirs (this is because, in general, while the water is stored in the reservoir, sediments will settle making the water easier to treat).
- Water that is transported from a reservoir, via a river, to a treatment works should be classified as water from a river.

If multiple sources feed a works (for example a river and a number of boreholes) and the flow from these sources is combined prior to treatment, then all of the flow entering the works can be categorised as the more difficult to treat water. (In this example, all of the water would be categorised as river water.)

Guidance for calculating the total number of pumping stations that pump into and within the treated water distribution service (potable water)

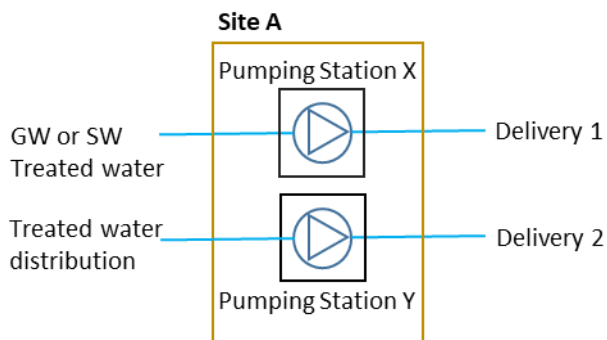
- When calculating the number of pumping stations note that this is not the number of individual pumps.
- Include all pumping stations that have been operationally available, regardless of whether they have been used in the reporting year, as this applies to all types of pumping stations, not just those lines related to 'proportion of distribution input'.
- Do not count more than once where a common source water is pumped to separate pressures at the same site (i.e. high lift and low lift), see example 2
- Pumping stations solely for exporting water to a 3rd party are to be excluded, as per RAG2 Appendix 1; **Definition of average pumping head.**



Note: Pumping stations solely for exporting to a 3rd party are to be excluded

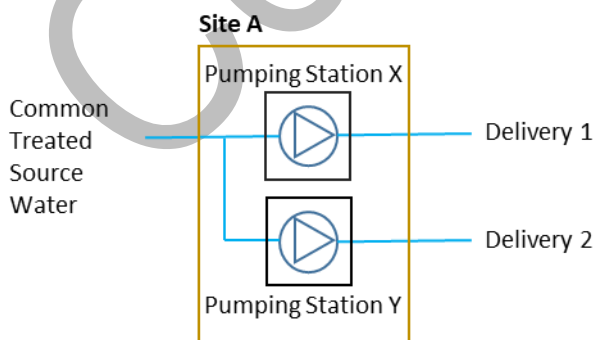
Example 1:

This is where a pumping station (Y) that re-pumps water already within the Treated Water Distribution System is located at the same site (A) as a groundwater or surface water pumping station (X). This counts as **two pumping stations** (one in 31c and one in 31a or b)



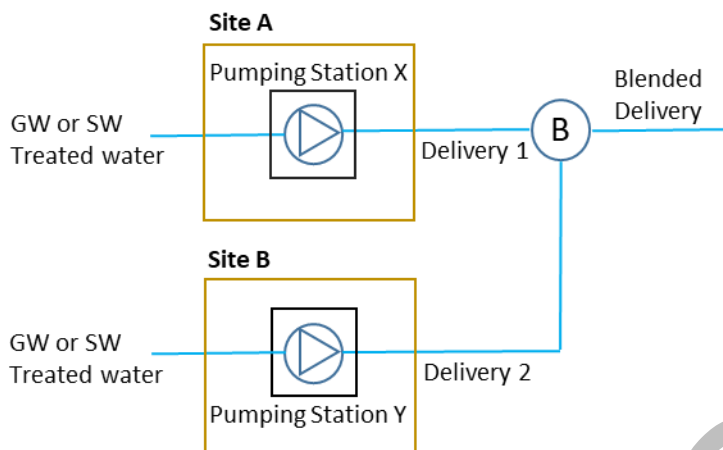
Example 2:

This is where multiple pumping stations may be located at the same site where a common source water (groundwater or surface water) is pumped to separate pressures at the same site (i.e. high lift and low lift). This counts as **one pumping station**.



Example 3:

This is where two separate Groundwater or Surface water pumping stations at different sites are blended in treated water distribution. This counts **as two pumping stations**.



Pumping stations solely for the exporting water to a 3rd party are to be **excluded**, as per RAG2 Appendix 1.

Ofwat (The Water Services Regulation Authority)
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