Cover sheet {Company Name}

Purpose	This spreadsheet provides key market information for a water company's water resource zone (WRZ). Separate spreadsheets are provided for each WRZ and the information provided is in line with guidelines published by Ofwat on its website. Where available companies are required to provide responses to all data.

Company name	Portsmouth Water
WRZ name	Company

WRMP the data relates to	WRMP 19
Date the spreadsheet was first published	Mar-18
Date of last update (see change log for details)	

Contact details for anyone wanting to discuss commercial opportunities arising from this information	Steve Morley
Geographical Information System (GIS) shapefile of water resources zone boundary file reference (hyperlink)	{hyperlink}

Brief description of data assurance	

Key: **Input cell colour** 🟨

Our data requirements are structured around geographic data and eight data tables:

Table 1: Key market information - A high level summary of information about the area and location of the WRZ, the current water resources, a summary of the supply-demand balance problem (if any), a summary of treatment capacities and constraints, and any other considerations that may impact solutions. Note this table is predominately based on data outside or supporting the WRMP process. In contrast the other seven tables link to existing WRMP19 data tables.

Table 2: Baseline supply forecast - A more detailed overview of the baseline supply situation for the WRZ. This gives a breakdown of supply availability forecasts for the company’s planning period. Supplies include water available from reservoirs, rivers or groundwater (boreholes) whilst also accounting for treatment and transport constraints. These baseline forecasts assume no new investments or interventions by the company.

Table 3: Baseline demand forecast - A more detailed overview of the baseline demand situation for the WRZ. This gives a breakdown of demand forecasts for the company’s planning period. Demand includes the amount of water required to supply customers whilst also meeting other demands (e.g. leakage) as part of this activity. These baseline forecasts assume no new investments or interventions by the company.

Table 4: Baseline supply demand balance - A more detailed overview of the baseline supply-demand balance for the WRZ. This takes the demand forecasts from the supply forecasts to calculate whether a zone is in a surplus or a deficit over the planning period. This baseline forecast assumes no new investments or interventions by the company.

Table 5: Final plan supply forecast - A detailed overview of the final plan supply situation for the WRZ. This gives a breakdown of the final plan supply availability forecasts for the company’s planning period. These final forecasts are based on the company’s preferred options (new investments and interventions) being completed.

Table 6: Final plan demand forecast - A detailed overview of the final plan demand situation for the WRZ. This gives a breakdown of the final plan demand forecasts for the company’s planning period. These final forecasts are based on the company’s preferred options (new investments and interventions) being completed.

Table 7: Final plan supply demand balance - A detailed overview of the final plan supply-demand balance for the WRZ. This takes the final plan demand forecasts from the final plan supply forecasts to calculate whether a zone will be in a surplus or a deficit over the planning period. This final plan forecast is based on the company’s preferred options (new investments and interventions) being completed.

Table 8: Final plan option costs - A cost breakdown of the feasible options included in the company’s WRMP to solve a planning period deficit. An option is feasible if it has passed through the companies screening process and is technically workable. These may be to increase available supply or reduce forecast demand (both would benefit the supply-demand balance). The costs are broken down into components such as capital costs

Change log {Company Name}

Date of change (DD/MM/YYYY)	Table Reference	Data Requirement Reference	Description of value(s) changed	Change reason
e.g. 01/01/2019	e.g. Table 3	e.g. Total leakage (total volume per day)		

Table 1 : Key market information

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description	Company Reponse
Water Resource Zone location	N/A	Region / Counties	The water resource zone (WRZ) is the largest area of a company's supply system where all customers have the same water supply risk. This is the level that water resources are managed and new investment planned by the companies through the water resource management plan (WRMP) process. The information should be presented as both a text description and as a boundary file that can be imported to a Geographical Information System (GIS) (such as an ESRI Shapefile).	Portsmouth Water only has one WRZ and this covers the whole area of supply. The Company area streaches from the River Arun in the East to the Meon in the West and from the South Downs to the coast. It includes urban areas of Portsmouth and Gosport and the smaller towns of Havant, Chichester and Bognor Regis.
Total number of sources	N/A	Number	A numeric count of the number of raw water sources for the WRZ location. The total for all of the WRZs should be the same as set out in the company's Annual Performance Review (APR).	22
Own source allocation: groundwater (including aquifer recharge)	N/A	% of demand met (distribution input)	The ratio of demand met (distribution input – flow entering the distribution network) from groundwater sources to total demand met. Aquifer recharge is the artificial replenishment of groundwater. The total across all zones should be the same as reported in the company APR.	91%
Own source allocation: reservoir (pumped and impounding)	N/A	% of demand met (distribution input)	The ratio of demand met (distribution input – flow entering the distribution network to meet demand) from reservoir sources to total demand. The total across all zones should be the same as reported in the company APR.	N/A
Own source allocation: direct river abstraction	N/A	% of demand met (distribution input)	The ratio of demand met (distribution input – flow entering the distribution network to meet demand) from direct river sources to total demand. The total across all zones should be the same as reported in the company APR.	9%
External source allocation (trading – imports)	N/A	% of demand met (distribution input)	The ratio of demand met (distribution input – flow entering the distribution network to meet demand) from external sources (third party imports) to total demand.	N/A
Critical planning period	N/A	% of demand met (distribution input)	The critical planning period as reported in the water resources management plan. This is the period that best highlights the pinch points in the company's system. The duration of critical period for the supply system should be reported e.g. Dry Year Annual Average (DYAA), or Dry Year Critical Period (DYCP) (defined as week, month, etc.). Where different problems are posed by alternative critical periods – the data tables should be presented for all scenarios.	The critical perion in a Dry Year is now Annual Average.
Level of service (Temporary Use Ban)	N/A	1 in X	The level of service is the commitment made by each company to all of its customers, based on an understanding of their priorities (e.g. frequency that hosepipe bans are acceptable), following engagement with them. There will be a variation of level of service provided by each company generally based on customer priorities, geography and inherent water resources. The Temporary Use Ban allows for restrictions on a customer's water usage for activities such as using hosepipes to water gardens. The level of service (average planned frequency) for Temporary Use Ban is a commitment made by companies based on an understanding of customers' priorities.	1 in 20
Level of service – (Drought order for non-essential use ban)	N/A	1 in X	The level of service (average planned frequency) for Drought order for non-essential use. This restricts customers' water usage further for activities such as cleaning the outside of buildings. An ordinary drought order can be applied for by either water companies or the Environment Agency/Natural Resources Wales in a drought situation.	1 in 80
Level of service – Emergency drought order (reducing demand): rota cuts and standpipes	N/A	1 in X	The level of service (average planned frequency) for an emergency drought order (restricting demand): rota cuts and standpipes as agreed with the company's customers. Emergency drought orders go further than ordinary drought orders as they enable a water company to have complete discretion on the uses of water that may be prohibited or limited, and to authorise supply by stand-pipes or water tanks.	1 in 200
Summary key cause of supply constraint	N/A	Hydrological / Licence / Capacity	The limiting factor for the WRZs supply forecast. Supply can be constrained by the amount available from the environment (hydrological / source yield constraint), the amount available via an abstraction licence (licence constraint), or the amount available as defined by a constraining asset such as a pump or pipe capacity (asset constraint).	Portsmouth Water's area of supply is in surlpus and it is the bulk supplies to Southern Water that creat a baseline deficit.
Drought plan option benefits	Table 10 – Drought Plan links	Ml/d	The benefit that the company believes drought plan actions can contribute to the supply demand balance. These actions are normally short term operational actions that can have a small supply benefit. They are implemented based on hydrological triggers (river flows/reservoir levels) in the company drought plans.	The drought plan actions have a large impact on demand with a total saving of up to 20.5 Ml/d. There is an additional supply side Drought Permit that could provide an additional 8.5 Ml/d in Severe droughts.
Year of first zonal deficit (if any)	N/A	Year	Defines the timing of the problem. This is based on the baseline supply-demand balance (supply forecast minus demand forecast including target headroom allowance – see below). The first year that there is a net water deficit according to the company's baseline plan	2020
Zone deficit summary	N/A	High (>10%) / Medium (5-10%) / Low (<5%)	Defines the scale of the problem. Relative measure of the zonal deficit from the baseline supply-demand forecast (supply forecast minus demand forecast allowing for target headroom). The maximum forecast deficit (if any) for the first 25 years of the company's planning period as a percentage of demand (distribution input).	High - but this is related to very large bulk supplies to Southern Water.
Other planning considerations and constraints	N/A	Free text	Any further considerations or constraints that may influence the choice of solutions for the WRZ. These could be source, treatment or transport considerations. Water quality constraints in terms of treatment processes (where this is beyond normal) e.g. proportion of treatment capacity that cannot treat river water, or that cannot treat certain water quality parameters. Treatment capacity/infrastructure capacity constraints – where additional source yield may need to be supplemented with additional investment.	All of the feasible solutions are used as soon as possible during the planning period.
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source A - 45.5 Ml/d - zero spare capacity - surface water - full treatment
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source B - 98 Ml/d - zero spare capacity - groundwater springs - full treatment
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source C - 20.5 Ml/d - zero spare capacity- groundwater - simple
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source J - 22.7 Ml/d - zero spare capacity- groundwater - simple
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source K - 11.4 Ml/d - zero spare capacity - groundwater - membrane
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source L - 16.9 Ml/d - zero spare capacity - groundwater - simple
Treatment works details	N/A	Free text	Maximum Design Capacity / Spare Capacity NYAA	Source N - 27.3 Ml/d - zero spare capacity - groundwater - simple
Treatment works details	N/A	Free text	Add new rows for additional treatment works	

Table 2 : Baseline supply forecast

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Deployable output forecast (supply)	Table 2: Baseline supply Row: 7BL	Ml/d	This information is for the baseline forecast before any of the adjustments due to changes or losses. This gives a measure of water supply available at treatment works outlet based on planned level of service and critical period in the current situation. Deployable output is a building block in determining water supplies available for use and is defined as the output for specified conditions for a water resources system as constrained by; hydrological (source) yield; licensed quantities; abstraction assets; raw water transfer assets; treatment; water quality; and levels of service.
Change in deployable output (supply) forecast due to climate change	Table 2: Baseline supply Row: 8.1BL	Ml/d	The forecast reductions in the baseline deployable output (supplies) over the planning period caused by climate change. Climate change is likely to impact the frequency and severity of more extreme events which impact the amount available for supply.
Deployable output (supply) forecast reductions to restore sustainable abstraction (abstraction licence reductions)	Table 2: Baseline supply Row: 8.2BL	Ml/d	Some catchments are reaching the limit of sustainable abstraction or even are over abstracted. Abstraction reductions (to lower levels than current under licence) may be required to protect conservation sites or to deliver Water Framework Directive (WFD) objectives. These are forecast as reductions in deployable output (supply) from the baseline forecast.
Total other changes to deployable output (supply) forecast (e.g. nitrates)	Table 2: Baseline supply Row: 8.3BL	Ml/d	Reductions in deployable output (supply) forecast as a result of other causes. These can include operational decline or loss of raw water source due to long term pollution, or other water quality issues.
Raw water losses, treatment works losses and operational use	Table 2: Baseline supply Row: 9BL	Ml/d	The water losses as part of the raw water distribution and water treatment activities. Raw water distribution losses can be from pipes, mains, aqueducts, open channels, break pressure tanks and small reservoirs. Raw water operational use can include loss from regular washing-out of mains. Treatment works losses are made up of both continuous and intermittent over-flows. Treatment works operational use includes water lost as a result of the treatment process, i.e. net loss that excludes water returned to source water This may be calculated as the difference between total water abstracted and total distribution input (flow leaving treatment works to meet demand), or may consist of measured values of each component.
Outage allowance	Table 2: Baseline supply Row: 10BL	Ml/d	Supplies from treatment works and abstraction assets are not always available, this is known as outage. They will be temporarily unavailable due to both planned and unplanned maintenance. Generally outage only considers reductions in output for periods less than 3 months, outage for longer than 3 months in most cases will be reflected as a reduction in base deployable output. The outage allowance forecast is based on asset outages within the zone that may result in a reduction in the amount of water available from treatment works. This forecast represents the baseline position before any new investment or interventions.

Data Requirement	Minimum Planning Period - 25 years												
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33
Deployable output forecast (supply)	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5
Change in deployable output (supply) forecast due to climate change	-0.1055	-0.141	-0.1765	-0.212	-0.2475	-0.283	-0.3185	-0.354	-0.3895	-0.425	-0.4605	-0.496	-0.5315
Deployable output (supply) forecast reductions to restore sustainable abstraction (abstraction licence reductions)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total other changes to deployable output (supply) forecast (e.g. nitrates)	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw water losses, treatment works losses and operational use	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Outage allowance	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7

Data Requirement	Minimum Planning Period - 25 years											
	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Deployable output forecast (supply)	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5
Change in deployable output (supply) forecast due to climate change	-0.567	-0.6025	-0.638	-0.6735	-0.709	-0.7445	-0.78	-0.8155	-0.851	-0.8865	-0.922	-0.9575
Deployable output (supply) forecast reductions to restore sustainable abstraction (abstraction licence reductions)	0	0	0	0	0	0	0	0	0	0	0	0
Total other changes to deployable output (supply) forecast (e.g. nitrates)	0	0	0	0	0	0	0	0	0	0	0	0
Raw water losses, treatment works losses and operational use	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Outage allowance	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7

Data Requirement	Optional Planning Period																											
	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73
Deployable output forecast (supply)																												
Change in deployable output (supply) forecast due to climate change																												
Deployable output (supply) forecast reductions to restore sustainable abstraction (abstraction licence reductions)																												
Total other changes to deployable output (supply) forecast (e.g. nitrates)																												
Raw water losses, treatment works losses and operational use																												
Outage allowance																												

Data Requirement	Optional Planning Period																											
	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Deployable output forecast (supply)																												
Change in deployable output (supply) forecast due to climate change																												
Deployable output (supply) forecast reductions to restore sustainable abstraction (abstraction licence reductions)																												
Total other changes to deployable output (supply) forecast (e.g. nitrates)																												
Raw water losses, treatment works losses and operational use																												
Outage allowance																												

Table 3 : Baseline demand forecast

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Measured (metered) non household – consumption	Table 3: Baseline demand Row: 23BL	Ml/d	Non-households are those properties that are not used as dwellings. Measured refers to properties that are metered which affects how much water is used by customers and provides a better forecast of overall water usage (when compared to unmeasured). This provides a forecast of the total water usage (consumption) of the properties that fall into this category. This figure applies to billed measured non-household properties and excludes underground supply pipe leakage. This forecast represents the baseline position before any new investment or interventions.
Unmeasured (unmetered) non household – consumption	Table 3: Baseline demand Row: 24BL	Ml/d	Unmeasured refers to properties that are not metered which affects how much water is used by customers and creates some more uncertainty in this sub-component of overall water usage (when compared to measured). This provides a forecast of the water usage (consumption) of the properties that fall into this category. This figure applies to unmeasured non-household properties and excludes underground supply pipe leakage. This forecast represents the baseline position before any new investment or interventions.
Measured (metered) household – consumption	Table 3: Baseline demand Row: 25BL	Ml/d	Households are those properties that are used as dwellings. Measured refers to properties that are metered which affects how much water is used by customers and provides a better forecast of overall water usage (when compared to unmeasured). This provides a forecast of the water usage (consumption) of the properties that fall into this category. This figure applies to billed measured and excludes underground supply pipe leakage. This forecast represents the baseline position before any new investment or interventions.
Unmeasured (unmetered) household – consumption	Table 3: Baseline demand Row: 26BL	Ml/d	Unmeasured refers to properties that are not metered which affects how much water is used by customers and creates some more uncertainty in this sub-component of overall water usage (when compared to measured). This provides a forecast of the water usage (consumption) of the properties that fall into this category. This figure applies to unmeasured household properties and excludes underground supply pipe leakage. This forecast represents the baseline position before any new investment or interventions.
Measured (metered) household – per capita consumption (PCC)	Table 3: Baseline demand Row: 29BL	l/h/d	Average amount of water used by each customer that lives in a measured (metered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d) This forecast represents the baseline position before any new investment or interventions.
Unmeasured (unmetered) household – per capita consumption (PCC)	Table 3: Baseline demand Row: 30BL	l/h/d	Average amount of water used by each customer that lives in an unmeasured (unmetered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d) This forecast represents the baseline position before any new investment or interventions.
Average household – per capita consumption (PCC)	Table 3: Baseline demand Row: 31BL	l/h/d	Average amount of water used by each customer that lives in a (metered or unmetered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d) This forecast represents the baseline position before any new investment or interventions.
Total leakage (total volume per day)	Table 3: Baseline demand Row: 40BL	Ml/d	Total losses through the underground distribution system (pipe network) and (customer's) supply pipes. This should be consistent with the annual data return but should be based on the proportion that this zone contributes to the company's total leakage. The total zonal leakage is expressed as a total volume lost per day (Ml/d) This forecast represents the baseline position before any new investment or interventions.
Total leakage (flow per property)	Table 3: Baseline demand Row: 41BL	l/prop/day	Total losses through the underground distribution system and (customer's) supply pipes. This should be consistent with the annual data return but should be based on the proportion that this zone contributes to the company's total leakage. The total zonal leakage is expressed as a volume (in litres) lost per property per day (l/prop/day). This forecast represents the baseline position before any new investment or interventions.
Measured (metered) properties (excl voids)	Table 3: Baseline demand Row: 45BL	000s	This is the total number of metered properties that the company has on its database (household and non-household). Void properties (voids) are defined as the household properties, within the zone, which are connected for a water service but do not receive a bill, as there are no occupants. These are forecasted going forward based on growth projections.
Total properties – measured and unmeasured (incl. voids)	Table 3: Baseline demand Row: 48BL	000s	All properties that the company has on its database (in the zone. This is a total of all the household and non-household properties (both metered and unmetered). This includes void properties. These are forecasted going forward based on growth projections.
Total population	Table 3: Baseline demand Row: 53BL	000s	The total number of people living in the zone. The starting population is typically derived from census data or from the Office of National Statistics (ONS). Future forecasts of population are based on Government predictions using the ONS and local authority plans.
Measured (metered) household – Average occupancy rate (excl voids)	Table 3: Baseline demand Row: 54BL	h/prop	Occupancy rate (people living in each property) for metered (measured) households. Measured as people (head) per property (h/prop)
Unmeasured (unmetered) household - Average occupancy rate	Table 3: Baseline demand Row: 55BL	h/prop	Occupancy rate (people living in each property) for unmetered (unmeasured) households. Measured as people (head) per property (h/prop)
Total household metering penetration (incl. voids)	Table 3: Baseline demand Row: 57BL	%	The proportion of total household properties that receive bills based on metered consumption. The company will estimate the change year on year based on its current metering strategy and rates. This forecast represents the baseline position before any new investment or interventions.

	Minimum Planning Period - 25 years												
Data Requirement	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33
Measured (metered) non household – consumption	33.18	32.99	32.82	32.64	32.46	32.27	32.09	31.9	31.72	31.54	31.36	31.18	30.99
Unmeasured (unmetered) non household – consumption	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Measured (metered) household – consumption	30.73	32.83	34.91	37.02	39.18	41.34	43.54	45.78	47.59	48.99	50.38	51.73	53.03
Unmeasured (unmetered) household – consumption	68.7	66.63	64.62	62.62	60.64	58.68	56.72	54.76	53.27	52.23	51.23	50.27	49.34
Measured (metered) household – per capita consumption (PCC)	117.1	117.6	118.1	118.5	119	119.4	119.9	120.4	120.8	121.2	121.7	122.1	122.6
Unmeasured (unmetered) household – per capita consumption (PCC)	149.1	148.8	148.5	148.2	147.9	147.6	147.4	147.2	146.9	146.5	146.2	145.8	145.4
Average household – per capita consumption (PCC)	137.5	136.8	136.2	135.6	135.0	134.5	134.0	133.6	133.3	133.1	132.9	132.7	132.6
Total leakage (total volume per day)	34.95	34.9	34.83	34.78	34.71	34.66	34.6	34.54	34.52	34.53	34.55	34.58	34.6
Total leakage (flow per property)	109.87	108.92	107.94	107.04	106.03	105.10	104.12	103.14	102.32	101.59	100.91	100.27	99.63
Measured (metered) properties (excl voids)	108.97	116.53	123.99	131.49	139.13	146.72	154.45	162.22	168.53	173.42	178.23	182.92	187.41
Total properties – measured and unmeasured (incl. voids)	318.1	320.43	322.67	324.94	327.37	329.79	332.32	334.89	337.37	339.88	342.4	344.88	347.27
Total population	737.27	741.27	745.42	749.73	754.21	758.72	763.26	767.76	772.22	776.49	780.75	784.89	788.84
Measured (metered) household – Average occupancy rate (excl voids)	2.41	2.40	2.38	2.38	2.37	2.36	2.35	2.34	2.34	2.33	2.32	2.32	2.31
Unmeasured (unmetered) household - Average occupancy rate	2.49	2.49	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.47	2.47	2.46	2.46
Total household metering penetration (incl. voids)	36%	38%	41%	43%	45%	47%	49%	51%	53%	54%	55%	56%	57%

	Minimum Planning Period - 25 years											
Data Requirement	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Measured (metered) non household – consumption	30.81	30.62	30.44	30.27	30.14	30	29.85	29.71	29.57	29.42	29.28	29.14
Unmeasured (unmetered) non household – consumption	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Measured (metered) household – consumption	54.29	55.51	56.71	57.9	59.07	60.2	61.29	62.42	63.52	64.62	65.7	66.77
Unmeasured (unmetered) household – consumption	48.45	47.62	46.81	46.03	45.28	44.57	43.9	43.23	42.61	42	41.41	40.86
Measured (metered) household – per capita consumption (PCC)	123	123.4	123.8	124.2	124.6	125	125.4	125.8	126.2	126.6	126.9	127.3
Unmeasured (unmetered) household – per capita consumption (PCC)	145	144.7	144.4	144	143.6	143.3	143	142.6	142.4	142	141.7	141.4
Average household – per capita consumption (PCC)	132.5	132.4	132.3	132.3	132.2	132.2	132.2	132.2	132.2	132.2	132.3	132.3
Total leakage (total volume per day)	34.61	34.63	34.65	34.68	34.69	34.71	34.73	34.76	34.78	34.8	34.83	34.85
Total leakage (flow per property)	99.01	98.43	97.87	97.34	96.75	96.23	95.74	95.22	94.70	94.20	93.71	93.21
Measured (metered) properties (excl voids)	191.74	195.93	200.01	204.06	208.03	211.83	215.5	219.3	222.97	226.59	230.17	233.69
Total properties – measured and unmeasured (incl. voids)	349.56	351.82	354.03	356.29	358.54	360.69	362.76	365.05	367.25	369.44	371.66	373.87
Total population	792.65	796.31	799.93	803.58	807.23	810.81	814.38	818.01	821.66	825.34	829.02	832.73
Measured (metered) household – Average occupancy rate (excl voids)	2.30	2.30	2.29	2.28	2.28	2.27	2.27	2.26	2.26	2.25	2.25	2.24
Unmeasured (unmetered) household - Average occupancy rate	2.45	2.45	2.44	2.44	2.43	2.43	2.43	2.42	2.42	2.41	2.41	2.41
Total household metering penetration (incl. voids)	58%	58%	59%	60%	61%	61%	62%	63%	63%	64%	65%	65%

	Optional Planning Period																											
Data Requirement	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73
Measured (metered) non household – consumption																												
Unmeasured (unmetered) non household – consumption																												
Measured (metered) household – consumption																												
Unmeasured (unmetered) household – consumption																												
Measured (metered) household – per capita consumption (PCC)																												
Unmeasured (unmetered) household – per capita consumption (PCC)																												
Average household – per capita consumption (PCC)																												
Total leakage (total volume per day)																												
Total leakage (flow per property)																												
Measured (metered) properties (excl voids)																												
Total properties – measured and unmeasured (incl. voids)																												
Total population																												
Measured (metered) household – Average occupancy rate (excl voids)																												
Unmeasured (unmetered) household - Average occupancy rate																												
Total household metering penetration (incl. voids)																												

	Optional Planning Period																											
Data Requirement	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Measured (metered) non household – consumption																												
Unmeasured (unmetered) non household – consumption																												
Measured (metered) household – consumption																												
Unmeasured (unmetered) household – consumption																												
Measured (metered) household – per capita consumption (PCC)																												
Unmeasured (unmetered) household – per capita consumption (PCC)																												
Average household – per capita consumption (PCC)																												
Total leakage (total volume per day)																												
Total leakage (flow per property)																												
Measured (metered) properties (excl voids)																												
Total properties – measured and unmeasured (incl. voids)																												
Total population																												
Measured (metered) household – Average occupancy rate (excl voids)																												
Unmeasured (unmetered) household - Average occupancy rate																												
Total household metering penetration (incl. voids)																												

Table 4 : Baseline supply demand balance

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Distribution input (demand)	Table 4: Baseline supply demand balance Row: 11BL	Ml/d	The amount of water entering the distribution system (network) at the point of production e.g. water treatment works (to meet demands). This should be the average for the planning scenario. This is the baseline forecast which is the situation before any new investment or interventions. Calculated as a sum of water delivered (both household and non-household and measured and unmeasured), water taken unbilled, distribution system operational use, void properties and distribution losses.
Water Available For Use (WAFU) - own sources	Table 4: Baseline supply demand balance Row: 12BL	Ml/d	Baseline deployable output (supply) forecast less reductions in supplies (allowable outages, sustainability changes, raw water losses, and treatment works losses). Provides an estimate for average reliable supplies across the zone from the company's own sources. This is the baseline position before any new investment or interventions.
Total Water Available For Use (WAFU) – including transfers	Table 4: Baseline supply demand balance Row: 13BL	Ml/d	Water Available For Use (including transfers) accounts for transfers (imports and exports) from third parties. This is essentially the final supply forecast having accounted for all supply components. This is the baseline position before any new investment or interventions.
Target Headroom (uncertainty)	Table 4: Baseline supply demand balance Row: 16BL	Ml/d	The uncertainty 'headroom' is required between the supply and demand forecasts to ensure the zone is balanced or in a surplus. If the difference between supply and demand is less than the target headroom then the zone is in deficit (i.e. actual headroom is less than target headroom).
Supply Demand Balance	Table 4: Baseline supply demand balance Row: 18BL	l/h/d	The difference between total water available for use (WAFU) and total demand forecast also accounting for target headroom. The supply demand balance calculation accounts for total water available for use (supply), target headroom (uncertainty) and distribution input (demand). This is the baseline position before any new investment or interventions.

Data Requirement	Minimum Planning Period - 25 years																								
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Distribution input (demand)	170.54	170.33	170.17	170.05	169.98	169.94	169.94	169.97	170.09	170.28	170.51	170.75	170.95	171.15	171.37	171.60	171.87	172.17	172.47	172.76	173.11	173.47	173.83	174.21	174.61
Water Available For Use (WAFU) - own sources	209.29	209.26	209.22	209.19	209.15	209.12	209.08	209.05	209.01	208.98	208.94	208.90	208.87	208.83	208.80	208.76	208.73	208.69	208.66	208.62	208.58	208.55	208.51	208.48	208.44
Total Water Available For Use (WAFU) – including transfers	179.29	179.26	170.22	170.19	170.15	170.12	170.08	170.05	149.01	148.98	148.94	148.90	148.87	148.83	148.80	148.76	148.73	148.69	148.66	148.62	148.58	148.55	148.51	148.48	148.44
Target Headroom (uncertainty)	12.41	12.32	12.59	13.07	13.20	13.00	13.51	13.76	14.31	14.71	14.00	14.60	15.11	15.51	15.60	15.51	16.60	16.91	17.11	17.11	17.11	17.31	17.60	17.60	18.00
Supply Demand Balance	-3.66	-3.39	-12.54	-12.93	-13.03	-12.82	-13.37	-13.68	-35.39	-36.02	-35.57	-36.45	-37.19	-37.83	-38.17	-38.35	-39.74	-40.39	-40.92	-41.25	-41.64	-42.23	-42.92	-43.33	-44.17

Data Requirement	Optional Planning Period																																																							
	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Distribution input (demand)																																																								
Water Available For Use (WAFU) - own sources																																																								
Total Water Available For Use (WAFU) – including transfers																																																								
Target Headroom (uncertainty)																																																								
Supply Demand Balance																																																								

Table 5 : Final plan supply forecast

Company name	**Portsmouth Water**
WRZ name	**Company**

				Minimum Planning Period - 25 years																								
Data Requirement	WRMP19 reference	Units	Description	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Deployable output forecast (supply)	Table 7: Final planning water supply Row: 7FP	Ml/d	This gives a measure of water supply available (at treatment works outlet based on planned level of service and critical period) in the current situation. Deployable output is a building block in determining water supplies available for use and is defined as the output for specified conditions for a water resources system as constrained by; hydrological (source) yield; licensed quantities; abstraction assets; raw water transfer assets; treatment; water quality; and levels of service. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).	234.19	234.16	246.62	246.59	246.55	246.52	246.48	246.45	269.41	269.38	269.34	269.30	269.27	269.23	269.20	269.16	269.13	269.09	269.06	269.02	268.98	268.95	268.91	268.88	268.84
Raw water losses, treatment works losses and operational use	Table 7: Final planning water supply Row: 9FP	Ml/d	The water losses as part of the raw water distribution and water treatment activities. Raw water distribution can include losses from pipes, mains, aqueducts, open channels, break pressure tanks and small reservoirs. Raw water operational use can include loss from regular washing-out of mains due to sediment build up and poor quality of source water. Treatment works losses are made up of structural water loss and both continuous and intermittent over-flows. Treatment works operational use includes water lost as a result of the treatment process, i.e. net loss that excludes water returned to source water. This may be calculated as the difference between total water abstracted and total distribution input (flow leaving treatment works to meet demand), or may consist of measured values of each component. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Outage allowance	Table 7: Final planning water supply Row: 10FP	Ml/d	Supplies via treatment works and abstraction assets are not always available. They will be temporarily unavailable due to both planned and unplanned maintenance. Generally outage only considers reductions in output for periods less than 3 months, outage for longer than 3 months in most cases will be reflected as a reduction in base deployable output. The outage allowance forecast is based on asset outages within the water resource zone that result in a reduction the amount of water available from treatment works. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70

	Optional Planning Period																																																							
Data Requirement	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Deployable output forecast (supply)																																																								
Raw water losses, treatment works losses and operational use																																																								
Outage allowance																																																								

Table 6 : Final plan demand forecast

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Measured (metered) non household – consumption	Table 8: Final planning water demand Row: 23FP	Ml/d	This provides a forecast of the water usage (consumption) of the properties that fall into metered non-household category. This figure applies to billed measured non-household properties and excludes underground supply pipe leakage. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Unmeasured (unmetered) non household – consumption	Table 8: Final planning water demand Row: 24FP	Ml/d	This provides a forecast of the water usage (consumption) of the properties that fall into the unmetered non-household category. This figure applies to unmeasured non-household properties and excludes underground supply pipe leakage. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Measured (metered) household – consumption	Table 8: Final planning water demand Row: 25FP	Ml/d	This provides a forecast of the water usage (consumption) of the properties that fall into the metered household category. This figure applies to billed measured household properties and excludes underground supply pipe leakage. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Unmeasured (unmetered) household - consumption	Table 8: Final planning water demand Row: 26FP	Ml/d	This provides a forecast of the water usage (consumption) of the properties that fall into the unmetered household category. This figure applies to unmeasured household properties and excludes underground supply pipe leakage. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Measured (metered) household – per capita consumption (PCC)	Table 8: Final planning water demand Row: 29FP	l/h/d	Average amount of water used by each customer that lives in a measured (metered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d). This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Unmeasured (unmetered) household – per capita consumption (PCC)	Table 8: Final planning water demand Row: 30FP	l/h/d	Average amount of water used by each customer that lives in an unmeasured (unmetered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d) This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions)
Average household – per capita consumption (PCC)	Table 8: Final planning water demand Row: 31FP	l/h/d	Average amount of water used by each customer that lives in a (metered or unmetered) household property in the zone. Measured in flow used (litres) per person (head) per day (l/h/d). This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Total leakage (total volume per day)	Table 8: Final planning water demand Row: 40FP	Ml/d	Total losses through the underground distribution system (pipe network) and (customer's) supply pipes. This should be consistent with the annual data return but should be based on the proportion that this zone contributes to the company's total leakage. The total zonal leakage is expressed as a total volume lost per day (Ml/d). This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Total leakage (flow per property)	Table 8: Final planning water demand Row: 41FP	l/prop/day	Total losses through the underground distribution system and (customer's) supply pipes. This should be consistent with the annual data return but should be based on the proportion that this zone contributes to the company's total leakage. The total zonal leakage is expressed as a volume (in litres) lost per property per day (l/prop/day). This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Measured (metered) properties (excl voids)	Table 8: Final planning water demand Row: 45FP	000s	This is the total number of metered properties that the company has on its database (household and non-household). Void properties (voids) are defined as the household properties, within the zone, which are connected for a water service but do not receive a bill, as there are no occupants. These are forecasted going forward based on growth projections. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Total household metering penetration (incl. voids)	Table 8: Final planning water demand Row: 57FP	%	The forecast proportion of total household properties that receive bills based on metered consumption. The company will estimate the change year on year based on current metering strategy and rates. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).

	Minimum Planning Period - 25 years																								
Data Requirement	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Measured (metered) non household – consumption	33.18	32.99	32.82	32.64	32.46	32.27	32.09	31.9	31.72	31.54	31.36	31.18	30.99	30.81	30.62	30.44	30.27	30.14	30	29.85	29.71	29.57	29.42	29.28	29.14
Unmeasured (unmetered) non household – consumption	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Measured (metered) household – consumption	30.73	32.83	34.91	37.02	39.18	41.34	43.54	45.78	47.59	48.99	50.38	51.73	53.03	54.29	55.51	56.71	57.9	59.07	60.2	61.29	62.42	63.52	64.62	65.7	66.77
Unmeasured (unmetered) household - consumption	67.1	65.03	63.02	61.02	59.04	57.08	55.12	53.16	51.67	50.63	49.63	48.67	47.74	46.85	46.02	45.21	44.43	43.68	42.97	42.3	41.63	41.01	40.4	39.81	39.26
Measured (metered) household – per capita consumption (PCC)	117	118	118	119	119	119	120	120	121	121	122	122	123	123	123	124	124	125	125	125	126	126	127	127	127
Unmeasured (unmetered) household – per capita consumption (PCC)	146	145	145	144	144	144	143	143	142	142	142	141	141	140	140	139	139	139	138	138	137	137	137	136	136
Average household – per capita consumption (PCC)	135	135	134	133	133	132	132	132	131	131	131	131	131	130	130	130	130	130	130	130	130	130	130	130	130
Total leakage (total volume per day)	33.95	32.9	31.83	30.78	29.71	29.66	29.6	29.54	29.52	29.53	29.55	29.58	29.6	29.61	29.63	29.65	29.68	29.69	29.71	29.73	29.76	29.78	29.8	29.83	29.85
Total leakage (flow per property)	106.73	102.67	98.65	94.73	90.75	89.94	89.07	88.21	87.50	86.88	86.30	85.77	85.24	84.71	84.22	83.75	83.30	82.81	82.37	81.96	81.52	81.09	80.66	80.26	79.84
Measured (metered) properties (excl voids)	108.97	116.53	123.99	131.49	139.13	146.72	154.45	162.22	168.53	173.42	178.23	182.92	187.41	191.74	195.93	200.01	204.06	208.03	211.83	215.5	219.3	222.97	226.59	230.17	233.69
Total household metering penetration (incl. voids)	36%	38%	41%	43%	45%	47%	49%	51%	53%	54%	55%	56%	57%	58%	58%	59%	60%	61%	61%	62%	63%	63%	64%	65%	65%

	Optional Planning Period																																																							
Data Requirement	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Measured (metered) non household – consumption																																																								
Unmeasured (unmetered) non household – consumption																																																								
Measured (metered) household – consumption																																																								
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Total household metering penetration (incl. voids)																																																								

Table 7: Final plan supply demand balance

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Distribution input (demand)	Table 9: Final planning supply demand balance Row: 11FP	Ml/d	The amount of water entering the distribution system (network) at the point of production e.g. water treatment works (to meet demands). This should be the average for the planning scenario. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions). Calculated as a sum of water delivered (both household and non-household and measured and unmeasured), water taken unbilled, distribution system operational use, void properties and distribution losses.
Water Available For Use (WAFU) - own sources	Table 9: Final planning supply demand balance Row: 12FP	Ml/d	Final plan deployable output (supply) forecast less reductions in supplies (allowable outages, sustainability changes, raw water losses, and treatment works losses). Provides the final planning estimate for average reliable supplies across the zone. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Total Water Available For Use (WAFU) – including transfers	Table 9: Final planning supply demand balance Row: 13FP	Ml/d	Water Available For Use (including transfers) accounts for transfers (imports and exports) from third parties. This is essentially the final supply forecast having accounted for all supply components. This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).
Target Headroom (uncertainty)	Table 9: Final planning supply demand balance Row: 16FP	Ml/d	The uncertainty 'headroom' is required between the supply and demand forecasts to ensure the zone is balanced or in a surplus. If the difference between supply and demand is less than the target headroom then the zone is in deficit (i.e. actual headroom is less than target headroom).
Supply Demand Balance	Table 9: Final planning supply demand balance Row: 18FP	Ml/d	The difference between total water available for use (WAFU) and total demand forecast also accounting for target headroom. The supply demand balance calculation accounts for total water available for use (supply), target headroom (uncertainty) and distribution input (demand). This forecast is for the final plan and assumes delivery of the preferred options (new investments and interventions).

Data Requirement	Minimum Planning Period - 25 years																								
	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-2030	2030-2031	2031-2032	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44	2044-45
Distribution input (demand)	167.94	166.73	165.57	164.45	163.38	163.34	163.34	163.37	163.49	163.68	163.91	164.15	164.35	164.55	164.77	165.00	165.27	165.57	165.87	166.16	166.51	166.87	167.23	167.61	168.01
Water Available For Use (WAFU) - own sources	217.09	217.06	229.52	229.49	229.45	229.42	229.38	229.35	252.31	252.28	252.24	252.20	252.17	252.13	252.10	252.06	252.03	251.99	251.96	251.92	251.88	251.85	251.81	251.78	251.74
Total Water Available For Use (WAFU) – including transfers	187.09	187.06	190.52	190.49	190.45	190.42	190.38	190.35	192.31	192.28	192.24	192.20	192.17	192.13	192.10	192.06	192.03	191.99	191.96	191.92	191.88	191.85	191.81	191.78	191.74
Target Headroom (uncertainty)	12.41	12.32	12.59	13.07	13.2	13	13.51	13.76	14.31	14.71	14	14.6	15.11	15.51	15.6	15.51	16.6	16.91	17.11	17.11	17.11	17.31	17.6	17.6	18
Supply Demand Balance	6.74	8.01	12.36	12.97	13.87	14.08	13.53	13.22	14.51	13.89	14.33	13.45	12.71	12.07	11.73	11.55	10.16	9.51	8.98	8.65	8.26	7.67	6.98	6.57	5.73

Data Requirement	Optional Planning Period																											
	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51	2051-52	2052-53	2053-54	2054-55	2055-56	2056-57	2057-58	2058-59	2059-60	2060-61	2061-62	2062-63	2063-64	2064-65	2065-66	2066-67	2067-68	2068-69	2069-70	2070-71	2071-72	2072-73
Distribution input (demand)																												
Water Available For Use (WAFU) - own sources																												
Total Water Available For Use (WAFU) – including transfers																												
Target Headroom (uncertainty)																												
Supply Demand Balance																												

Data Requirement	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79	2079-80	2080-81	2081-82	2082-83	2083-84	2084-85	2085-86	2086-87	2087-88	2088-89	2089-90	2090-91	2091-92	2092-93	2093-94	2094-95	2095-96	2096-97	2097-98	2098-99	2099-100	2100-101
Distribution input (demand)																												
Water Available For Use (WAFU) - own sources																												
Total Water Available For Use (WAFU) – including transfers																												
Target Headroom (uncertainty)																												
Supply Demand Balance																												

Table 8: Final plan option costs

Company name	**Portsmouth Water**
WRZ name	**Company**

Data Requirement	WRMP19 reference	Units	Description
Option name	Table 5: Feasible options Column C	Text	Name of scheme for referencing.
Option reference number	Table 5: Feasible options Column D	Text	Reference number used in WRMP tables
Type of option	Table 5: Feasible options Column E	Text	Type of benefit the scheme delivers, e.g. Options to reduce outage, Options to increase raw imports, etc.
Preferred option	Table 5: Feasible options Column F	Y/N	Defines whether the option that was considered was chosen for the companies' short list of feasible options, or whether it is part of the preferred (final) plan and will form part of the companies water resources programme.
Planned scheme start date	Table 5: Feasible options Column G	Year	First year that the scheme delivers full benefit (additional resource or demand saving) if in the preferred plan. This will be the planned delivery of the scheme as part of the company's delivery programme and should be updated accordingly.
Option benefit – additional resources or demand saved (based on full implementation)	Table 5: Feasible options Column I	Ml/d on full implementation	Zonal benefit (in terms of additional supply – water available for use, or demand savings) of the option at full implementation.
Total planning period option benefit (Net Present Value)	Table 5: Feasible options Column J	Ml	The total volume (mega litres) of benefit gained from the option over the whole planning period. The benefit volume is then discounted over the planning period using the discount rate to provide a Net Present Value (NPV) of the benefit.
Total planning period capital cost of option (CAPEX NPV)	Table 5: Feasible options Column K	£000s	The total capital cost (CAPEX) spent to deliver the option over the planning period. This is then discounted over the planning period using the discount rate to provide a NPV of the total cost.
Total planning period operating cost of option (OPEX NPV)	Table 5: Feasible options Column L	£000s	The total operating cost (OPEX) spent to deliver the option over the planning period. This is then discounted over the planning period using the discount rate to provide a NPV of the total cost.
Total planning period operating saving cost of option (OPEX saving NPV)	Table 5: Feasible options Column M	£000s	The total operating cost saving made through the delivery / operation of the option over the planning period. This is then discounted over the planning period using the discount rate to provide a NPV of the total cost.
Total planning period carbon costs (Carbon NPV)	Table 5: Feasible options Column N	£000s	The total carbon cost (carbon generated through building and operating the option translated into financial terms) spent to deliver the option over the planning period. Two carbon prices have been developed: a traded price of carbon for emissions covered by the EU Emissions Trading Scheme (includes grid electricity use); and a non-traded price of carbon for emissions outside of the EU ETS. Companies use the appropriate carbon price depending on the origin of the fixed emissions (e.g. construction) and variable emissions (e.g. operational use). This is then discounted over the planning period using the discount rate to provide a NPV of the total carbon cost.
Total planning period social and environmental costs (NPV)	Table 5: Feasible options Column O	£000s	The total social and environmental costs (both positive and negative) translated into financial terms to deliver and operate the option over the planning period.
Total planning period option cost (NPV)	Table 5: Feasible options Column P	£000s	The total overall cost for the delivery and operation of the option over the planning period. This is then discounted using the discount rate to provide a NPV of the total cost.
Average Incremental Cost (AIC)	Table 5: Feasible options Column Q	p/m³	Average incremental cost of option delivery and operation over the planning period. The extra cost (pence) per volume of water gained (m³) for the option.
Average Incremental Social & Environmental Cost (AISC)	Table 5: Feasible options Column R	p/m³	Average incremental cost (including environmental and social costs) of option delivery and operation over the planning period. The extra cost (pence) per volume gained (m³) for the option.
Scope Confidence	Table 5: Feasible options Column S	Score 1 to 5	Measure of the confidence the company has in the scope (scheme type / benefits). For the purposes of long-term planning, companies initially develop schemes in outline and assign costs on that basis. As a result there is some uncertainty associated with that information. A score of 1 is an indication of low confidence whilst a 5 indicates relative high confidence.
Cost Confidence	Table 5: Feasible options Column T	Score 1 to 5	Measure of the confidence the company has in the costs. For the purposes of long-term planning, companies initially develop schemes in outline and assign costs on that basis. As a result there is some uncertainty associated with that information. As a company develops its plans to the feasible options stage, there is an expectation that the robustness of estimates of costs improve so that there is sufficient confidence in the company's ability to implement its preferred solution as described. A score of 1 is an indication of low confidence whilst a 5 indicates relative high confidence.

Data Requirement	Scheme 1	Scheme 2	Scheme 3	Scheme 4	Scheme 5	Scheme 6	Scheme 7	Scheme 8	Scheme 9	Scheme 10
Option name	Havant Thicket Reservoir	Source J Boreholes	Source C DO Recovery	Source J DO Recovery	Source O DO Recovery	Source S Drought Permit	District Metering Phase 1	Distric Metering Phase 2	Non Essential Use Ban	Calls for Restraint
Option reference number	R013	R022a	R024a	R023a	R021a	R068	D005	D011	C080	C078
Type of option	Reservoir	Groundwater	Groundwater	Groundwater	Groundwater	Drought Scheme	Leakage Control	Leakage Control	Drought Scheme	Drought Scheme
Preferred option	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Planned scheme start date	1905/05	2023	2020	2020	2020	2020	2025	2030	2020	2020
Option benefit – additional resources or demand saved (based on full implementation)	23.00	12.5	4.0	2.0	1.8	8.5	5.0	10	7.9	4.3
Total planning period option benefit (Net Present Value)	173,094	117018	36128	117018	16851	88575	50413	89168	294	733
Total planning period capital cost of option (CAPEX NPV)	81,402	2083	9	2083	835	9	997	6489	180	479
Total planning period operating cost of option (OPEX NPV)	5,251	4019	4823	4019	0	3949	3625	11332	221	184
Total planning period operating saving cost of option (OPEX saving NPV)	0	0	0	0	228	0	0	0	0	0
Total planning period carbon costs (Carbon NPV)	7,886	1147	352	1147	0	754	-101	-17	0	-1
Total planning period social and environmental costs (NPV)	58,902	0	0	0	0	0	2161	9892	0	87
Total planning period option cost (NPV)	35,637	7249	5184	7249	1063	4713	6682	27697	400	749
Average Incremental Cost (AIC)	50.06	5.22	13.4	5.2	6.3	4.5	9.2	20	136.4	90.5
Average Incremental Social & Environmental Cost (AISC)	20.59	6.2	14.4	6.2	6.3	5.3	13.3	31.1	136.3	102.3
Scope Confidence	1	2	2	2	2	2	1	1	2	2
Cost Confidence	1	3	3	3	3	3	1	1	3	3

Data Requirement	Scheme 11	Scheme 12	Scheme 13	Scheme 14	Scheme 15	Scheme 16	Scheme 17	Scheme 18	Scheme 19	Scheme 20
Option name	Hosepipe Ban	Appliance Subsidy	Retro fitting Toilets	Spray Taps	Water Butts	Home Visits				
Option reference number	CC079	C026	C034	C040	C043	C046				
Type of option	Drought Scheme	Water Efficiency	Water Efficiency	Water Efficiency	Water Efficiency	Water Efficiency				
Preferred option	Y	Y	Y	Y	Y	Y				
Planned scheme start date	2020	2020	2020	2020	2020	2020				
Option benefit – additional resources or demand saved (based on full implementation)	8.3	0.1	0.1	0.1	0.1	1.2				
Total planning period option benefit (Net Present Value)	476	2358	848	543	155	9417				
Total planning period capital cost of option (CAPEX NPV)	575	413	92	2302	382	1144				
Total planning period operating cost of option (OPEX NPV)	202	8	2	4	1	2				
Total planning period operating saving cost of option (OPEX saving NPV)	0	0	0	0	0	0				
Total planning period carbon costs (Carbon NPV)	-1	-768	0	0	40	-3205				
Total planning period social and environmental costs (NPV)	0	1	1	8	2	10				
Total planning period option cost (NPV)	776	-346	95	2314	425	2048				
Average Incremental Cost (AIC)	163.2	17.9	11.1	424.6	246.4	12.2				
Average Incremental Social & Environmental Cost (AISC)	163	-14.7	11.2	426.1	273.8	-21.7				
Scope Confidence	2	2	3	3	3	3				
Cost Confidence	3	2	3	3	3	3				