

# Water Resources Planning Tables 2019

v14 - October 2017

All queries on the content of this workbook should be sent to:  
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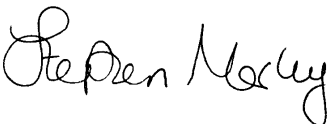


Cyfoeth Naturiol Cymru  
Natural Resources Wales

## Water resource zone information



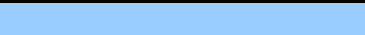


Company:	Portsmouth Water
Resource Zone Name:	Company
Resource Zone Number:	PRT 1
Planning Scenario Name:	Dry Year Annual Average
Chosen Level of Service:	1 in 20
Base Year:	2015-16
Responsible Officer:	Steve Morley
Version:	Draft Plan Publication

Dry Year

Signed:  Dated: 05.03.18

[Digital signature is acceptable]

## Key to cells

	Clear cells - indicate an input is required
	Yellow shaded cells - indicates a formula.
	Blue shaded cells - indicate base year data.
	Light grey shaded cells - indicate preceding years.
	Dark grey cells - indicate that no data entry is required.

## Worksheet

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- 2. BL Supply
- 3. BL Demand
- 4. BL SDB
- 5. Feasible options
- 6. Preferred options
- 7. FP Supply
- 8. FP Demand
- 9. FP SDB
- 10. Drought plan links

## Content

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- Baseline demand
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- Fixed and Variable costs, Net Present Value, AIC and AISC of all feasible options (confidential)
- High level costs of preferred options (Dry Year) - publicly available
- Final Planning water supplies (impact of Scenario options)
- Final Planning demand (impact of Scenario options)
- Final Planning supply demand balance
- Drought plan links

Portsmouth Water  
Company

**Baseline Supply-Demand Balance:**

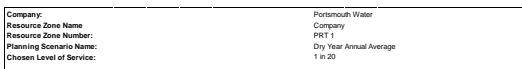


Table 1: Baseline licences

Row ref	Derivation	Licence number	Source name	Source type	Deployable output (MI/d)	Annual licensed quantity (MI/d)	Constraints on deployable output	Additional notes (if desired)
All individual licences:					226.50	311.63		
0.1BL	Sum (0.1BL+...)	-	-	-	145.30	218.21	-	
	Input		Source A	SW:River	36.90	45.50	Licence	Licence varied 2011 MRF set
	Input		Source C	GW	17.30	20.51	Licence	Turbidity issues
	Input		Source D	GW	1.10	0.00	Pump level	Linked to Source C
	Input		Source E	GW	0.40	0.46	Licence	Standby source
	Input		Source F	GW	7.20	9.02	Licence	Licence varied 2015 Augmentation
	Input		Source G	GW	1.50	0.00	Licence	Linked to Source S
	Input		Source H	GW	7.70	9.12	Licence	Flow condition
	Input		Source I	GW	1.50	1.50	Flow condition	Licence varied 2015 MRF set
	Input		Source J	GW	9.10	22.73	DAPWL	Water quality issues
	Input		Source K	GW	9.60	11.37	Licence	Water quality issues
	Input		Source B	GW:Springs	53.00	98.00	Flow condition	Licence varied 2009 MRF set
	Input							
Grouped licences	Derivation	Licence number	Source name	Source type	deployable output (MI/d)	licensed quantity (MI/d)		
0.2BL	Sum (0.2BL+...)	-	Total	-	81.20	-	-	
		Group #:	[Enter name of group]	-	81.20	-	-	
	Input		Sources L-P	GW	52.90	65.04	Licence	River Ems augmentation
	Input		Sources Q-T	GW	28.30	28.38	Pump capacity	Nitrate blending/Bulk supply
-	Input							
Unused licences:	Derivation	Licence number	Source name	Source type	deployable output (MI/d)	licensed quantity (MI/d)	Reason licence is unused	
0.3BL	Sum (0.3BL+...)	-	-	-	0.00	3.02	-	
	Input		Source U	GW	0.00	3.02	Emergency use only	Raw water augmentation R Ems
-	Input							
New licences (within current AMP):	Derivation	Licence number	Source name	Source type	deployable output (MI/d)	licensed quantity (MI/d)	Status of licence	
0.4BL	Sum (0.4BL+...)	-	-	-	0.00	0.00	-	
	Input							
-	Input							

Company:	Portsmouth Water
Resource Zone Name:	Company
Resource Zone Number:	PRT 1
Planning Scenario Name:	Dry Year Annual Average
Chosen Level of Service:	1 in 20

README

Table 2: Baseline supply

Row ref	Component	Derivation	Unit	decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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
Resources	1BL Raw water abstracted	Input	Ml/d	2																													
	2BL Total raw water imported	sum(2.1BL+2.2BL+2.3BL...)	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	2.1BL+ Raw water imported from: None	Input	Ml/d	2																													
	-	-	-	2																													
	3BL Total potable water imported	sum(3.1BL+3.2BL+3.3BL...)	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	3.1BL+ Potable water imported from: None	Input	Ml/d	2																													
	-	-	-	2																													
	5BL Total raw water exported (raw exports and non potable)	sum(5.1BL+5.2BL+...)	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	5.1BL Non potable water supplied to:	Input	Ml/d	2																													
	5.2BL+ Raw water export to: None	Input	Ml/d	2																													
	-	-	-	2																													
	6BL Total potable water exported	sum(6.1BL+6.2BL+6.3BL...)	Ml/d	2	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	6.1BL+ Potable water export to: Sussex North	Input	Ml/d	2	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	Potable water export to: Hampshire South	Input	Ml/d	2	0.00	0.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	Potable water export to: Hampshire South	Input	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
	Potable water export to: Hampshire South	Input	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00
	Potable water export to: South East Water	Input	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-	-	Ml/d	2																													
7BL Deployable Output (baseline profile without reductions)	sum(0.1BL+0.2BL+0.3BL+0.4BL)	Ml/d	2	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	226.50	
Resource (and process) Losses	8BL Baseline forecast changes to Deployable Output	sum(8.1BL+8.2BL+8.3BL)	Ml/d	2	0.00	0.00	0.00	-0.07	-0.11	-0.14	-0.18	-0.21	-0.25	-0.28	-0.32	-0.35	-0.39	-0.43	-0.46	-0.50	-0.53	-0.57	-0.60	-0.64	-0.67	-0.71	-0.74	-0.78	-0.82	-0.85	-0.89	-0.92	-0.96
	8.1BL Change in DO due to climate change	Input (reductions must be expressed as -ve)	Ml/d	2	0.0	0.00	0.00	-0.07	-0.11	-0.14	-0.18	-0.21	-0.25	-0.28	-0.32	-0.35	-0.39	-0.43	-0.46	-0.50	-0.53	-0.57	-0.60	-0.64	-0.67	-0.71	-0.74	-0.78	-0.82	-0.85	-0.89	-0.92	-0.96
	8.2BL Reductions to restore sustainable abstraction	sum(8.2BL sub components)	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8.2BL+ Total for the zone	Input (zero or negative number)	Ml/d	2																													
	-	-	-	2																													
	8.3BL Total other changes to DO (specify, e.g. nitrates): None	Input (reductions must be expressed as -ve)	Ml/d	2																													
	9BL Raw water losses, treatment works losses and operation	Input	Ml/d	2	5.40	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	2.40	2.40	2.40	2.40
	10BL Outage allowance	Input	Ml/d	2	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	14.70	14.70	14.70	14.70

Company:	Portsmouth Water
Resource Zone Name:	Company
Resource Zone Number:	PRT 1
Planning Scenario Name:	Dry Year Annual Average
Chosen Level of Service:	1 in 20

Table 3: Baseline demand

	Row ref	Component	Derivation	Unit	Decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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	
Consumption	19BL	Water delivered measured non-household	Input	Ml/d	2	34.22	34.00	33.83	33.65	33.46	33.27	33.09	32.91	32.73	32.54	32.36	32.17	31.99	31.80	31.62	31.44	31.25	31.07	30.88	30.70	30.53	30.39	30.25	30.10	29.96	29.82	29.67	29.53	29.39	
	20BL	Water delivered unmeasured non- household	Input	Ml/d	2	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	
	21BL	Water delivered measured household	Input	Ml/d	2	21.71	26.37	28.59	30.82	33.07	35.32	37.55	39.81	42.12	44.43	46.79	49.18	51.12	52.62	54.10	55.55	56.94	58.28	59.59	60.87	62.14	63.39	64.60	65.76	66.97	68.14	69.31	70.46	71.60	
	22BL	Water delivered unmeasured household	Input	Ml/d	2	85.02	80.92	78.64	76.36	74.07	71.81	69.60	67.40	65.21	63.05	60.88	58.71	57.07	55.96	54.89	53.86	52.86	51.91	51.01	50.14	49.31	48.50	47.74	47.02	46.30	45.63	44.97	44.34	43.74	
	23BL	Measured Non Household - Consumption	19BL-34BL	Ml/d	2	33.94	33.72	33.55	33.37	33.18	32.99	32.82	32.64	32.46	32.27	32.09	31.90	31.72	31.54	31.36	31.18	30.99	30.81	30.62	30.44	30.27	30.14	30.00	29.85	29.71	29.57	29.42	29.28	29.14	
	24BL	Unmeasured Non Household - Consumption	20BL-35BL	Ml/d	2	0.11	0.11	0.11	0.11	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	
	25BL	Measured Household - Consumption	21BL-36BL	Ml/d	2	20.14	24.49	26.55	28.63	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	57.90	59.07	60.20	61.29	62.42	63.52	64.62	65.70	66.77	
	26BL	Unmeasured Household - Consumption	22BL-37BL	Ml/d	2	78.72	74.98	72.89	70.80	68.70	66.63	64.62	62.62	60.64	58.68	56.72	54.76	53.27	52.23	51.23	50.27	49.34	48.45	47.62	46.81	46.03	45.28	44.57	43.90	43.23	42.61	42.00	41.41	40.86	
	27 -	Percentage of consumption driven by climate change	Input	%	1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
28 -	Volume of consumption driven by climate change		Ml/d	1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	
PCC and consumption by component	29BL	Measured Household - PCC	(25BL*1,000,000)/(51BL*1,000)	l/h/d	1	112.9	115.7	116.1	116.6	117.1	117.6	118.1	118.5	119.0	119.4	119.9	120.4	120.8	121.2	121.7	122.1	122.6	123.0	123.4	123.8	124.2	124.6	125.0	125.4	125.8	126.2	126.6	126.9	127.3	
	29.1BL	Measured toilet flushing	Input	l/h/d	1	27.5	28.0	27.9	27.9	27.8	27.7	27.7	27.6	27.5	27.4	27.4	27.3	27.2	27.1	27.0	26.9	26.8	26.7	26.6	26.5	26.4	26.3	26.2	26.1	26.0	25.9	25.8	25.7	25.6	
	29.2BL	Measured personal washing	Input	l/h/d	1	49.6	51.2	51.5	51.9	52.3	52.7	53.1	53.5	53.8	54.2	54.6	55.0	55.4	55.8	56.2	56.5	57.0	57.3	57.7	58.1	58.5	58.9	59.3	59.6	60.1	60.4	60.9	61.3	61.7	
	29.3BL	Measured clothes washing	Input	l/h/d	1	15.2	15.6	15.6	15.7	15.8	15.9	15.9	16.0	16.1	16.1	16.2	16.3	16.3	16.4	16.5	16.5	16.6	16.7	16.7	16.8	16.8	16.9	16.9	17.0	17.0	17.1	17.1	17.2	17.2	
	29.4BL	Measured dish washing	Input	l/h/d	1	9.6	9.8	9.8	9.9	9.9	10.0	10.0	10.0	10.1	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.3	10.4	10.4	10.4	10.5	10.5	10.5	10.5	10.6	10.6	10.6	10.7	10.7	
	29.5BL	Measured miscellaneous internal use	Input	l/h/d	1	7.7	7.8	8.0	7.9	8.0	7.9	7.9	8.0	8.0	8.0	8.1	8.0	8.1	8.2	8.2	8.2	8.4	8.3	8.4	8.4	8.3	8.4	8.4	8.5	8.4	8.5	8.5	8.5	8.4	8.5
	29.6BL	Measured external use	Input	l/h/d	1	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.7	3.6	3.6	
	30BL	Unmeasured Household - PCC	(26BL*1,000,000)/(52BL*1,000)	l/h/d	1	150.5	150.3	149.9	149.5	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	145.0	144.7	144.4	144.0	143.6	143.3	143.0	142.6	142.4	142.0	141.7	141.4	
	30.1BL	Unmeasured toilet flushing	Input	l/h/d	1	42.9	42.9	42.6	42.3	42.1	41.8	41.5	41.3	41.1	40.8	40.6	40.4	40.1	39.8	39.6	39.3	39.0	38.8	38.5	38.2	38.0	37.7	37.5	37.2	36.9	36.7	36.4	36.2	35.9	
	30.2BL	Unmeasured personal washing	Input	l/h/d	1	62.2	62.0	61.9	61.8	61.7	61.6	61.5	61.4	61.3	61.2	61.2	61.1	61.1	61.0	60.9	60.8	60.7	60.6	60.5	60.4	60.3	60.3	60.2	60.1	60.1	60.0	49.9	49.9	49.8	
	30.3BL	Unmeasured clothes washing	Input	l/h/d	1	18.5	18.5	18.5	18.5	18.6	18.6	18.6	18.6	18.6	18.6	18.7	18.7	18.7	18.7	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	
	30.4BL	Unmeasured dish washing	Input	l/h/d	1	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9	13.9	13.9	13.9	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	
	30.5BL	Unmeasured miscellaneous internal use	Input	l/h/d	1	10.8	10.7	10.7	10.7	10.6	10.7	10.7	10.8	10.8	10.6	10.6	10.6	10.7	10.7	10.7	10.7	10.6	10.6	10.6	10.7	10.9	10.7	10.7	10.7	10.8	10.8	10.8	10.7	10.8	
	30.6BL	Unmeasured external use	Input	l/h/d	1	12.3	12.4	12.4	12.4	12.3	12.3	12.4	12.3	12.3	12.5	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.3	12.4	12.3	12.4	12.3	12.3	12.3	12.4	12.3	12.3	12.3	
	31BL	Average Household - PCC	((25BL+26BL)*1,000,000)/(51BL+52BL*1,000)	l/h/d	1	140.9	140.0	139.1	138.3	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	132.5	132.4	132.3	132.3	132.2	132.2	132.2	132.2	132.2	132.2	132.2	132.3	132.3
	32BL	Water Taken Unbilled	Input	Ml/d	2	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
	33BL	Distribution System Operational Use	Input	Ml/d	2	0.41	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Leakage	34BL	Measured Non Household - USPL	Input	Ml/d	2	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.27	0.27																					

Table 4: Baseline supply demand balance

Row ref	Component	Derivation	Unit	Decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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	
SDB	11BL	Distribution input	19BL+20BL+21BL+22BL+32BL+33BL+38BL+39BL	Mld	2	170.88	171.25	171.01	170.77	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
	12BL	Water Available For Use (own sources)	(7BL+8BL)-(9BL+10BL)	Mld	2	206.40	209.40	209.40	209.33	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
	13BL	Total Water Available For Use	12BL+(2BL+3BL)+(5BL+6BL)	Mld	2	191.40	194.40	179.40	170.33	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
	14BL	Target headroom (climate change component)	Input	Mld	2	2.78	2.84	2.91	2.96	3.10	3.08	3.15	3.27	3.30	3.25	3.38	3.48	3.58	3.68	3.50	3.65	3.78	3.88	3.90	3.88	4.15	4.23	4.28	4.28	4.33	4.40	4.40	4.50	
	15BL	Target headroom (All other components)	Input	Mld	2	8.33	8.52	8.72	8.97	9.31	9.24	9.44	9.80	9.80	9.75	10.13	10.28	10.73	11.03	10.50	10.95	11.33	11.63	11.70	11.83	12.45	12.68	12.83	12.83	12.83	12.98	13.20	13.20	13.50
	16BL	Target Headroom	14BL+15BL	Mld	2	11.11	11.36	11.64	11.93	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
	17BL	Available Headroom	13BL+11BL	Mld	2	20.52	23.15	8.39	8.68	8.75	8.93	0.05	0.14	0.17	0.18	0.14	0.06	-21.08	-21.31	-21.57	-21.85	-22.08	-22.32	-22.57	-22.84	-23.14	-23.48	-23.81	-24.14	-24.53	-24.92	-25.32	-25.73	-26.17
	18BL	Supply Demand Balance	17BL+16BL	Mld	2	9.41	11.79	-3.25	-3.27	-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

Company:	Portsmouth Water
Resource Zone Name:	Company
Resource Zone Number:	PRT 1
Planning Scenario Name:	Dry Year Annual Average
Chosen Level of Service:	1 in 20

README

[illegible]

Table 6: Preferred list of water management options

DRY YEAR PLANNED GAINS IN WAFU OR SAVINGS IN DEMAND (Ml/d) - TO BE COMPLETED FOR ALL PREFERRED OPTIONS																																	
Row Ref	Option Name <small>(Insert / delete non-numbered lines to suit)</small>	Option Reference No.	Unit	Decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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
58	Resource Management	-	Ml/d	2	0.00	0.00	0.00	7.80	7.80	7.80	20.30	20.30	20.30	20.30	20.30	20.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30
58.1	Increase raw water abstractions	-	Ml/d	2	0.00	0.00	0.00	7.80	7.80	7.80	20.30	20.30	20.30	20.30	20.30	20.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30	43.30
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	Havant Thicket Reservoir	R013	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
-	Source J Boreholes	R022a	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
-	Source C DO Recovery	R024a	Ml/d	2	0.00	0.00	0.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
-	Source H DO Recovery	R023a	Ml/d	2	0.00	0.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
-	Source O DO Recovery	R021a	Ml/d	2	0.00	0.00	0.00	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
-	Source S Drought Permit	R068	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.2	Raw water imports	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.3	Potable water imports (input reductions as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.4	Reduce raw water losses and operational use (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.5	Reduced raw water export (including non potable supplies)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.51	Reduce raw water exports (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.52	Reduce non potable supplies (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.6	Reduce potable water exports (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58.7	Other options to increase deployable output	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	Distribution Side Management	-	-	-	0.00	0.00	0.00	0.00	-1.00	-2.00	-3.00	-4.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00
59.1	Reduce distribution losses (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	-1.00	-2.00	-3.00	-4.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00
-	District Metering Phase 1	D005	Ml/d	2	0.00	0.00	0.00	0.00	-1.00	-2.00	-3.00	-4.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59.2	Reduce distribution system operational use (DSOU) (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	Production Side Management, Specify Below....	-	-	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.1	Reduce treatment works losses (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60.2	Reduce outages (input as -ve)	-	Ml/d	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-	<small>(insert row above)</small>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Table 7: Final planning water supply**

[illegible]

<b>Company:</b>	Portsmouth Water
<b>Resource Zone Name:</b>	Company
<b>Resource Zone Number:</b>	PRT 1
<b>Planning Scenario Name:</b>	Dry Year Annual Average
<b>Chosen Level of Service:</b>	1 in 20

Table 8: Final planning water demand

	Row Ref	Component	Derivation / Impact of preferred options	Unit	Decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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
Consumption	19FP	Water Delivered Measured Non Household	Calculated BL+Preferred options	Mld	2	34.22	34.00	33.83	33.65	33.46	33.27	33.09	32.91	32.73	32.54	32.36	32.17	31.99	31.80	31.62	31.44	31.25	31.07	30.88	30.70	30.53	30.39	30.25	30.10	29.96	29.82	29.67	29.53	29.39
	20FP	Water Delivered Unmeasured Non Household	Calculated BL+Preferred options	Mld	2	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
	21FP	Water Delivered Measured Household	Calculated BL+Preferred options	Mld	2	21.71	26.37	28.59	30.82	33.07	35.32	37.55	39.81	42.12	44.43	46.79	49.18	51.12	52.62	54.10	55.55	56.94	58.28	59.59	60.87	62.14	63.39	64.60	65.76	66.97	68.14	69.31	70.46	71.60
	22FP	Water Delivered Unmeasured Household	Calculated BL+Preferred options	Mld	2	85.02	80.92	77.84	75.16	72.47	70.21	68.00	65.80	63.61	61.45	59.28	57.11	55.47	54.36	53.29	52.26	51.26	50.31	49.41	48.54	47.71	46.90	46.14	45.42	44.70	44.03	43.37	42.74	42.14
	23FP	Measured Non Household - Consumption	19FP-34FP	Mld	2	33.94	33.72	33.55	33.37	33.18	32.99	32.82	32.64	32.46	32.27	32.09	31.90	31.72	31.54	31.36	31.18	30.99	30.81	30.62	30.44	30.27	30.14	30.00	29.85	29.71	29.57	29.42	29.28	29.14
	24FP	Unmeasured Non Household - Consumption	20FP-35FP	Mld	2	0.11	0.11	0.11	0.11	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
	25FP	Measured Household - Consumption	21FP-36FP	Mld	2	20.14	24.49	26.55	28.63	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	57.90	59.07	60.20	61.29	62.42	63.52	64.62	65.70	66.77
	26FP	Unmeasured Household - Consumption	22FP-37FP	Mld	2	78.72	74.98	72.09	69.60	67.10	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	42.30	41.63	41.01	40.40	39.81	39.26
	27 -	Percentage of consumption driven by climate change	n/a in FP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28 -	Volume of consumption driven by climate change	n/a in FP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCC and consumption by component	29FP	Measured Household - PCC	(25FP*1,000,000)/(51FP*1,000)	l/h/d	1	113.0	116.0	119.0	117.0	117	118.0	118	119	119	119	120	120	121	122	122	123	123	123	124	124	125	125	126	126	127	127	127	127	127
	29.1FP	Measured toilet flushing	Input brief explanation here: Same as BL	l/h/d	1	27.5	28.1	27.9	27.9	27.7	27.7	27.7	27.7	27.5	27.3	27.4	27.2	27.2	27.1	27.1	26.9	26.9	26.7	26.5	26.5	26.4	26.4	26.2	26.0	26.0	25.9	25.9	25.7	25.5
	29.2FP	Measured personal washing	Input brief explanation here: Same as BL	l/h/d	1	49.6	51.3	51.5	52.1	52.3	52.9	53.1	53.7	53.8	54.0	54.6	54.8	55.5	55.7	56.3	56.5	57.2	57.3	57.5	58.2	58.4	59.1	59.3	59.4	60.2	60.3	61.1	61.3	61.6
	29.3FP	Measured clothes washing	Input brief explanation here: Same as BL	l/h/d	1	15.2	15.6	15.6	15.8	15.8	16.0	15.9	16.1	16.1	16.0	16.2	16.2	16.3	16.4	16.5	16.5	16.7	16.7	16.6	16.8	16.8	17.0	16.9	16.9	17.0	17.1	17.2	17.2	17.2
	29.4FP	Measured dish washing	Input brief explanation here: Same as BL	l/h/d	1	9.6	9.8	9.8	9.9	9.9	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.3	10.4	10.4	10.4	10.5	10.5	10.5	10.6	10.6	10.6	10.6	10.7	10.7	10.7
	29.5FP	Measured miscellaneous internal use	Input brief explanation here: Same as BL	l/h/d	1	7.7	7.8	8.0	7.9	8.0	7.9	7.9	8.0	8.0	8.1	8.0	8.1	8.2	8.2	8.2	8.2	8.3	8.4	8.4	8.3	8.4	8.4	8.5	8.4	8.5	8.5	8.4	8.5	
	29.6FP	Measured external use	Input brief explanation here: Same as BL	l/h/d	1	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.6	3.7	3.6	3.6
	30FP	Unmeasured Household - PCC	(26FP*1,000,000)/(52FP*1,000)	l/h/d	1	150.0	150.0	148.0	147.0	146.0	145.0	145.0	144.0	144.0	144.0	143.0	143.0	142.0	142.0	142.0	141.0	141.0	140.0	140.0	139.0	139.0	139.0	138.0	138.0	137.0	137.0	137.0	136.0	136.0
	30.1FP	Unmeasured toilet flushing	Input brief explanation here: Includes WE Options	l/h/d	1	42.8	42.8	42.1	41.8	41.2	40.7	40.5	40.1	40.0	39.8	39.4	39.2	38.8	38.6	38.5	38.0	37.8	37.5	37.2	36.8	36.7	36.5	36.1	35.9	35.5	35.3	34.7	34.5	
	30.2FP	Unmeasured personal washing	Input brief explanation here: Includes WE Options	l/h/d	1	52.0	51.9	51.2	50.8	50.6	50.3	50.3	49.9	49.9	50.0	49.7	49.6	49.4	49.4	49.1	49.2	48.9	48.9	48.5	48.6	48.7	48.3	48.3	48.1	48.1	48.1	47.9	47.9	47.9
30.3FP	Unmeasured clothes washing	Input brief explanation here: Includes WE Options	l/h/d	1	18.4	18.5	18.3	18.2	18.2	18.2	18.1	18.2	18.1	18.1	18.2	18.1	18.2	18.1	18.1	18.3	18.2	18.2	18.2	18.2	18.2	18.1	18.1	18.2	18.1	18.1	18.1	18.1	18.0	18.1
30.4FP	Unmeasured dish washing	Input brief explanation here: Includes WE Options	l/h/d	1	13.8	13.8	13.6	13.6	13.5	13.5	13.4	13.5	13.4	13.5	13.5	13.5	13.4	13.5	13.5	13.4	13.5	13.4	13.5	13.4	13.3	13.3	13.4	13.3	13.3	13.3	13.3	13.3	13.3	
30.5FP	Unmeasured miscellaneous internal use	Input brief explanation here: Includes WE Options	l/h/d	1	10.8	10.7	10.6	10.5	10.4	10.4	10.4	10.5	10.5	10.3	10.3	10.3	10.4	10.3	10.3	10.3	10.3	10.3	10.3	10.4	10.4	10.5	10.3	10.4	10.3	10.4	10.2	10.4	10.4	10.3
30.6FP	Unmeasured external use	Input brief explanation here: Includes WE Options	l/h/d	1	12.3	12.4	12.2	12.2	12.0	12.0	12.0	12.1	12.0	12.0	12.2	12.0	12.0	12.0	12.0	12.0	11.9	12.0	11.8	11.8	12.0	11.9	11.8	11.9	11.9	11.8	11.9	11.8	11.8	11.8
31FP	Average Household - PCC	((25FP+26FP)*1,000,000)/(51FP+52FP*1,000)	l/h/d	1	140.90	140.0	138.0	136.5	135.3	134.6	134.0	133.4	132.9	132.4	131.9	131.5	131.2	131.0	130.8	130.7	130.5	130.4	130.3	130.3	130.2	130.2	130.2	130.1	130.2	130.2	130.3	130.3		
32FP	Water Taken Unbilled	Calculated BL+Preferred options	Mld	2	2.42	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	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	2.4	2.4	
33FP	Distribution System Operational Use	Calculated BL+Preferred options	Mld	1	0.41	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Leakage	34FP	Measured Non Household - USPL	Calculated BL+Preferred options	Mld	2	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	35FP	Unmeasured Non Household - USPL	Calculated BL+Preferred options	Mld	2	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	36FP	Measured Household - USPL	Calculated BL+Preferred options	Mld	2	1.57	1.98	2.08	2.19	2.34	2.49	2.64	2.79	2.94	3.09	3.25	3.40	3.53	3.65	3.72	3.82	3.91	3.99	4.08	4.16	4.24	4.32	4.40	4.47	4.55	4.62	4.69	4.76	4.83
	37FP	Unmeasured Household - USPL	Calculated BL+Preferred options	Mld	2	6.30	5.94	5.75	5.56	5.37	5.18	4.98	4.78	4.57	4.37	4.16	3.95	3.80	3.73	3.66	3.59	3.52	3.46	3.39	3.33	3.28	3.22	3.17	3.12	3.07	3.02	2.97	2.93	2.88
	38FP	Void Properties - USPL	Calculated BL+Preferred options	Mld	2	0.29	0.28	0.27	0.26	0.26	0.25	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	39FP	Distribution Losses	Calculated BL+Preferred options	Mld	2	26.65	26.65	26.65	26.65	25.65	24.65	23.65	22.65	21.65	21.65	21.65	21.651																	

Table 9: Final planning water supply

Row Ref	Component	Derivation	Unit	Decimal places	2015-16	For info 2017-18	For info 2018-19	For info 2019-20	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
SDB	11FP Distribution Input	19FP+20FP+21FP+22FP+32FP+33FP+38FP+39	Mld	2	170.88	171.25	169.57	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	168.45
	12FP Water Available For Use (own sources)	7FP-(9FP+10FP)	Mld	2	206.40	209.40	209.40	217.13	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
	13FP Total Water Available For Use	12FP+(2FP+3FP)-(5FP+6FP)	Mld	2	191.40	194.40	179.40	187.13	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
	14FP Target headroom (climate change component)	Input	Mld	2	2.78	2.84	2.91	2.96	3.10	3.08	3.15	3.27	3.30	3.25	3.38	3.48	3.58	3.68	3.50	3.65	3.78	3.88	3.90	3.88	4.15	4.23	4.28	4.28	4.33	4.40	4.40	4.50	
	15FP Target headroom (All other components)	Input	Mld	2	8.33	8.32	8.73	8.87	9.31	9.24	9.44	9.80	9.90	9.75	10.13	10.28	10.73	11.03	10.50	10.95	11.33	11.63	11.70	11.63	12.45	12.68	12.83	12.83	12.98	13.20	13.20	13.50	
	16FP Target Headroom	14FP+15FP	Mld	2	11.11	11.36	11.64	11.83	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	17.31	17.60	17.60	18.00	
	17FP Available Headroom	13FP-11FP	Mld	2	20.52	23.15	9.19	17.56	19.15	20.33	24.95	26.04	27.07	27.08	27.04	26.98	28.82	28.80	28.33	28.05	27.82	27.58	27.33	27.06	26.76	26.42	26.09	25.76	25.37	24.98	24.58	24.17	23.73
	18FP Supply Demand Balance	17FP-16FP	Mld	2	9.41	11.79	-2.45	5.73	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

Company:	Portsmouth Water
Resource Zone Name:	Company
Resource Zone Number:	PRT 1
Planning Scenario Name:	Dry Year Annual Average
Chosen Level of Service:	1 in 20

Table 10: Drought plan links and Deployable Output Overview

10.1 Planning scenarios					10.2 Water resources management plan							10.3 Drought plan							10.4 Demand	
Drought Scenarios	Drought Description	Drought Severity	Plan in which scenario is used (highlights overlaps)		WRMP DO of Sources (not including drought measures)	WRMP Additional Yield from Drought Supply Measures (eg drought permits or orders)			WRMP Impact on DI of drought plan Demand Restrictions (eg TUBs)			WRMP DO Levels of Service	Drought Plan Additional Yield from Further Supply Measures (eg drought permits or orders)			Drought Plan Impact on DO of Further Demand Restrictions (eg TUBs)			Unrestricted Demand	Restricted Demand
			WRMP	Drought Plan		Description	Marginal Benefit (Ml/d)	DO (Ml/d)	Description	Marginal Benefit (Ml/d)	DO (Ml/d)		Description	Marginal Benefit (Ml/d)	DO (Ml/d)	Description	Marginal Benefit (Ml/d)	DO (Ml/d)	Ml/d	Ml/d
Dry Year	1 in 1	5.00%	Y	N	227.0	None	0.0	0.0	None	0.0	0.0	0.0	None	0.0	0.0	None	0.0	0.0	171	171
Historic 'A'	1 in 40	2.5%	Y	Y	212.0	None	0.0	0.0	Hosepipe Ban	12.6	0.0	0.0	None	0.0	0.0	Hosepipe Ban	12.6	0.0	171	158
Extended 'B'	1 in 80	1.25%	Y	Y	207.0	None	0.0	0.0	Hosepipe Ban	12.6	0.0	0.0	None	8.5	8.5	Hosepipe Ban	12.6	0.0	171	158
Serious 'C'	1 in 125	0.80%	Y	Y	198.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	0.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	171	151
Severe 'D'	1 in 200	0.50%	Y	Y	191.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	0.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	171	151
Extreme	1 in 500	0.20%	N	N	180.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	0.0	Source S DP	8.5	8.5	Non Essential	20.5	0.0	171	151

Reported DO for WRMP tables highlighted in yellow

10.5 Summary report		
<div><div>WRMP DO Overview</div><div><p>This set of Tables is for 'Dry Year' with a return period of 1 in 20. The WRMP also contains tables for a Scenario 'D' Drought with a return period of 1 in 200. This represents the 'Reference Level of Service'. The DO has been calculated using simulated weather data and there is an allowance for Climate Change.</p></div></div>		<div><div>Drought Plan Overview</div><div><p>The Drought Plan is directly linked to the WRMP and uses the same Scenarios. The Drought Plan is an operational plan that sets out how the demand restrictions and Drought Permits will be managed. Portsmouth Water has no raw water storage and there is no impact of demand restrictions on DO.</p></div></div>
<div><div>Additional Drought Scenarios</div><div><p>A full range of drought scenarios has been investigated from a dry year to the severe drought. A supply/demand balance has been produced for each scenario but they do not all drive investment. The WRMP does not include the Extreme Drought Scenario ( 1 in 500) because this is dealt with in the Emergency Plan.The Worst Drought on Record is approximately Scenario 'B' but this is much less ever than the Reference Level of Service. The Historic Drought (1 in 40) is represented by 1973 when the lowest groundwater levels were recorded.</p></div></div>		<div><div>Drought Supply Measures and Demand Restrictions Further Details</div><div><p>There is only one Drought Supply Measure in the WRMP and this is the potential Drought Permit at Source S. This Drought Permit is for 8.5 Ml/d' at average and peak, and it has potential impact on the Arundel Park SSSI. Portsmouth Water will work with Southern Water to develop the monitoring plan and mitigation measures for this site. The Drought Permit is only required for serious droughts with a return period of greater than 1 in 80 years. Demand restrictions are brought in in phases and these are set out in the table above. The Historic Drought ,Scenario 'A', would see calls for restraint followed by Hosepipe Bans. As the drought developed, and a Serious Shortage of rainfall existed, then Non Essential Use Restrictions could be imposed. These restrictions would be in place for six months but this period could be extended in the most severe droughts. Each drought is different and the exact timing of restrictions will vary from drought to drought.</p></div></div>
<div><div>Impact on Supply / Demand</div><div><p>The supply/demand balance is influenced by the scenario with deployable output falling and distribution input impacted by demand restrictions. The Dry Year represents unconstrained demands when restrictions are just avoided and DO is at its highest. The supply/demand balance is positive for the whole of the planning period for the Dry Year Scenario. This requires the 'Preferred List' of supply side and demand side options.</p></div></div>		
<div><div>Demands</div><div><p>The Dry Year Scenario is based on unconstrained demand with no restrictions. As a drought develops a series of demand restrictions are introduced and DI falls. The demand benefits shown above are cumulative and are based on simple percentage reductions. Portsmouth Water has no recent experience of drought management and the introduction of exceptions has reduced the impact of Hosepipe Bans and Non Essential Use Bans.</p></div></div>		