PR19 final determinations

Notification of the PR19 final determination of Price Controls for Portsmouth Water





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16 December 2019

Dear Bob

Final determination of price controls

I enclose the formal notification of the determination by the Water Services Regulation Authority (Ofwat) of Price Controls for the period from 1 April 2020. This sets out:

- the designation of Water Resources Activities and Havant Thicket Activities;
- the Price Control for Network Plus Water Activities:
- the Price Control for Water Resources Activities;
- the Price Control for Havant Thicket Activities;
- the Price Control for Retail Activities; and
- (in annex 1) the Notified Item and Land sales assumptions;
- (in annex 2) the Performance Commitments in relation to which Price Controls may be adjusted in-period; and
- (in annex 3) the Revenue Forecasting Incentive formula.

This final determination letter has been published on our website. We are also publishing details on the outcomes and performance commitments for the company to deliver, together with information on our general approach and the reasons for our decisions.

We will publish information about the annual regulatory reporting, assurance requirements and our approach to PR19 reconciliations early in 2020.

You have two months to decide whether to refer the determination to the Competition and Markets Authority. If you wish Ofwat to refer the determination you must let us know in writing no later than 15 February 2020.

Yours sincerely,

David Black

Senior Director, Water 2020

Notification by the Water Services Regulation Authority of its determination of Price Controls for Portsmouth Water Limited ("the Determination")

This is the Determination by the Water Services Regulation Authority ("Ofwat") of the Price Controls for Retail Activities, Network Plus Water Activities, Water Resources Activities and Havant Thicket Activities. It is made by Ofwat in accordance with Part III of Condition B (Charges) of the company's Appointment as a water undertaker:

- after having had regard to all the circumstances which are relevant in the light of the principles which apply by virtue of Part I of the Water Industry Act 1991 in relation to Ofwat's determinations, including, without limitation, any change in circumstance which has occurred since the last Periodic Review or which is to occur; and
- in accordance with the statement setting out strategic priorities and objectives for Ofwat published by the Secretary of State for Environment, Food and Rural Affairs.

The Price Controls will, except for the Price Control for Havant Thicket Activities, apply for the five consecutive Charging Years starting on 1 April 2020. The Price Control for Havant Thicket Activities will apply for the ten consecutive Charging Years starting on 1 April 2020.

You must levy charges in a way best calculated to comply with the Price Controls.

Unless the contrary intention appears, words and expressions used in the Determination and the accompanying annexes, shall have the same meaning as in the Conditions of the Appointment. Common terms used in the formulae in the Determination and the annexes are defined in the Glossary set out in Annex 4.

1. Designation of activities

The sets of activities that will be covered by the relevant Price Controls are set out below.

1.1 Network Plus Water Activities

All activities carried out by the Appointee in performance of its functions as a water undertaker that are <u>not</u> designated as Water Resources Activities, Havant Thicket Activities or Retail Activities will be Network Plus Water Activities.

1.2 Water Resources Activities

Ofwat designates as Water Resources Activities under sub-paragraph 8.9 of Condition B the activities carried out as part of the Appointed Business that fall within the definitions of the following services in RAG 4.08 – Guideline for the table definitions in the annual performance report (March 2019) except to the extent that those activities are designated as Havant Thicket Activities:

- Water resources Abstraction licences; and
- Water resources Raw water abstraction.

1.3 Havant Thicket Activities

Ofwat designates as Havant Thicket Activities under sub-paragraph 8.9 of Condition B the activities carried out as part of the Appointed Business that are set out in Annex 5.

1.4 Retail Activities

Ofwat is not changing the activities that are currently designated as Retail Activities (these activities were designated as part of the 2014 Periodic Review).

1.5 Wholesale activities not covered by wholesale price controls

The Price Controls in respect of Water Resources Activities and Network Plus Water Activities will not apply to those activities for which there are Excluded Charges. The Price Control in respect of Havant Thicket Activities does not limit the revenue from Excluded Charges. Excluded Charges (as defined in Condition B) include:

charges for a supply of water in bulk to another water undertaker;

- amounts payable in respect of an unmeasured supply of water by means of stand-pipes or water tanks and in respect of the erection or maintenance of stand-pipes or water tanks;
- amounts payable in relation to the alteration or removal of any relevant pipe (as
 defined in section 158 of the Water Industry Act 1991) or other apparatus that the
 Appointee is required to carry out under the New Roads and Streets Works Act
 1991 or any other statutory provision except a provision of the Water Industry Act
 1991:
- charges for a supply of water provided by the Appointee under section 59 (Supplies for other public purposes) of the Water Industry Act 1991;
- charges for unmeasured supplies of water to cattle troughs;
- · charges for unmeasured building water supplies;
- amounts payable in respect of an unmeasured supply of water by means of bowsers or water tankers;
- charges for unmeasured supplies of water to farm taps and other agricultural water points;
- amounts payable under any such agreement as is described in section 20(1)(b) of the Water Resources Act 1991;
- charges payable under any agreement for any unmeasured supply of water
 which are calculated by reference to the rateable value of hereditaments,
 occupied by the person to whom the supply or services are provided, fixed in
 accordance with section 32, 33 or, as the case may be, 34 of the General Rate
 Act 1967 or, as the case may be, fixed in accordance with section 54 of the Local
 Government Finance Act 1988; and
- to the extent that they are not charges for a supply of water in bulk to another
 water undertaker, amounts payable by Southern Water Services Limited under
 any agreement entered into between it and the Appointee in respect of any
 matters which fall within the scope of the Havant Thicket Activities.

2. Price Controls for Network Plus Water Activities

In respect of the Appointed Business's Network Plus Water Activities, except those activities for which there are Excluded Charges, there will be one single Price Control in respect of the Appointed Business's Network Plus Water Activities.

Such Price Control will consist of in each Charging Year:

• the percentage change (expressed, in the case of an increase, as a positive number, in the case of a decrease, as a negative number, and, in the case of no change, as zero) in the Consumer Prices Index (H) between that published for the month of November in the Prior Year and that published for the immediately preceding November; and

• a number, "K", which may be a positive number or a negative number or zero

which together shall be expressed as a percentage, and which shall limit the change in the revenue allowed to the Appointed Business in each Charging Year in respect of the Network Plus Water Activities concerned.

For each Charging Year starting on or after 1 April 2021 the revenue allowed to the Appointed Business in respect of the Network Plus Water Activities concerned will be the product of the following formula:

$$R_{t} = R_{t-1} \times \left[1 + \left(\frac{CPIH_{t} + K_{t}}{100} \right) \right]$$

For the Charging Year starting on 1 April 2020 the revenue allowed to the Appointed Business in respect of the Network Plus Water Activities concerned is the product of the same formula except that $\mathbf{R_{t-1}}$ = the relevant revenue allowance (as set out below). This is because (as the form of Price Controls has since changed) at the last Periodic Review no revenue allowance in respect of Network Plus Water Activities was set for the Charging Year that started on 1 April 2019.

In respect of the Appointed Business's Network Plus Water Activities, the starting point for the calculation of the change in the revenue allowed to the Appointed Business in the Charging Year starting on 1 April 2020 (the revenue allowance for Network Plus Water Activities) is £29.433 million, which shall constitute the value of R_{t-1} in respect of that Charging Year.

The "K" numbers for each Charging Year are set out in Table 1.

Table 1: Price Control for Network Plus Water Activities "K" numbers

Charging Year beginning 1 April	2020	2021	2022	2023	2024
K number	0.00	0.61	0.79	0.53	1.09

3. Price Control for Water Resources Activities

The Price Control shall consist of, in each Charging Year:

- the percentage change (expressed, in the case of an increase, as a positive number, in the case of a decrease, as a negative number, and, in the case of no change, as zero) in the Consumer Prices Index (H) between that published for the month of November in the Prior Year and that published for the immediately preceding November; and
- a number, "K", which may be a positive number or a negative number or zero

which together shall be expressed as a percentage, and which shall limit the change in the revenue allowed to the Appointed Business in each Charging Year.

For each Charging Year starting on or after 1 April 2021 the revenue allowed to the Appointed Business in respect of the Water Resources Activities concerned will be the product of the following formula:

$$R_{t} = R_{t-1} \times \left[1 + \left(\frac{CPIH_{t} + K_{t}}{100} \right) \right]$$

For the Charging Year starting on 1 April 2020 the revenue allowed to the Appointed Business in respect of Water Resources Activities is the product of the same formula except that $\mathbf{R_{t-1}}$ = the relevant revenue allowance (as set out below). This is because (as the form of Price Controls has since changed) at the last Periodic Review no revenue allowance in respect of Water Resources Activities was set for the Charging Year that started on 1 April 2019.

In respect of the Appointed Business's Water Resources Activities, the starting point for the calculation of the change in the revenue allowed to the Appointed Business in the Charging Year starting on 1 April 2020 (the revenue allowance for Water Resources Activities) is £5.769 million, which shall constitute the value of Rt-1 in respect of that Charging Year.

The "K" numbers for each Charging Year are set out in Table 3.

Table 3: Price Control for Water Resources Activities "K" numbers

Charging Year beginning 1 April	2020	2021	2022	2023	2024
K number	0.00	0.08	0.52	2.04	0.53

Note:

There is no Table 2 in this determination. This is a deliberate omission that is intended to ensure consistency in Table numbers between different companies.

3.1 In-period adjustment to the Price Control for Water Resources Activities to account for bilateral entry

For each Charging Year starting two or more years after the beginning of the Charging Year in which a new section 66B(1) is inserted into, or substituted for the existing section 66B(1) of, the Water Industry Act 1991 by paragraph 1 of Schedule 2 to the Water Act 2014 ("Bilateral Market Opening") the revenue allowed to the Appointed Business in respect of the Water Resources Activities concerned will be calculated in accordance with the following formula:

$$R_{t} = R_{t-1} \times \left[1 + \frac{CPIH_{t} + K_{t}}{100}\right] + \left[BEA_{t-2} \times \left(CPIH \text{ adjustment factor}_{t}\right) \times \left(1 + \frac{D}{100}\right)^{2}\right]$$

Where:

$$BEA_t = ICC_t \times AUC_t \times BEF_t$$

$$BEF_t = \left(\frac{TCC_t}{ICC_t + BCCa_t}\right) - 1$$

$$TCC_t = ICC_t + BCCf_t$$

BEAt **Bilateral entry adjustment.** The bilateral entry adjustment is expressed in 2017-18 FYA CPIH deflated prices. This value can be a negative number or zero but cannot be higher than zero (and any positive number shall therefore be considered as zero for the purposes of calculating the revenue allowed to the Appointed Business in respect of the Water Resources Activities concerned).

WRZ Water resource zone. This is the water resource zone ("WRZ") used for the basis of the calculation in the relevant Charging Year, as listed in Table 4 below. The WRZ must have the same geographical boundaries as that WRZ has for the purposes of the draft water resources management plan published by the Appointee in 2018 in accordance with section 37B(3) of the Water Industry Act 1991.

ICC_t Incumbent cumulative capacity. The Appointee's cumulative post-2020 forecast capacity (MI/d), as set out in Table 4 below.

AUC_t Annualised unit cost. The Appointee's annualised unit cost of cumulative post-2020 capacity (£/ Ml/d) expressed in 2017-18 FYA CPIH deflated prices, as set out in Table 4 below.

BEF_t **Bilateral entry forecast factor.** The bilateral entry forecast factor is:

- (i) the difference between actual bilateral entry capacity (BCCat) compared to that forecast (BCCft), as a proportion of total forecast post-2020 capacity (TCCt); and
- (ii) a negative number or is zero.

TCC_t **Total cumulative capacity.** The total forecast cumulative post-2020 capacity for the relevant year (t) as set out in Table 4 below.

BCCa^t **Bilateral cumulative capacity - actual.** The actual post-2020 third party bilateral capacity in the water resource zone in year t for the dry year annual average (DYAA) planning period, as measured using water resources yield. For these purposes:

- "actual post-2020 third party bilateral capacity" means the actual capacity available because of agreements that permit the introduction of water into the Appointee's supply system in accordance with section 66B or section 66C of the Water Industry Act 1991; and
- water resources yield for the DYAA planning period must be calculated:
 - (i) in accordance with Appendix 2 (Water resources further guidance) to RAG 4.08 (as published by Ofwat in March 2019)¹; and
 - (ii) in a manner consistent with the calculation of water resources yield for the DYAA planning period for the purposes of the draft water resources management plan published by the Appointee in 2018 in accordance with section 37B(3) of the Water Industry Act 1991.

BCCf_t **Bilateral cumulative capacity - forecast.** The forecasted cumulative post-2020 third-party bilateral capacity provided for the DYAA planning period, as used for WRMP19 and as measured using water resources yield in the water resource zone and as set out in Table 4 below.

¹ RAG 4.08 Appendix 2 (Water resources further guidance) can be found at https://www.ofwat.gov.uk/wp-content/uploads/2019/01/RAG-4.08-Appendix-2-post-condoc-v1.pdf

Table 4: Price Control for Water Resources Activities bilateral entry adjustment numbers

Charging Year beginning 1 April	2020	2021	2022	2023	2024
	Wat	ter resource zo	ne: PRT		
AUC (£/ Ml/d, 17-18 prices)	N/A	N/A	£32,777	£32,777	£24,357
ICC	N/A	N/A	7.80	7.80	20.30
BCCf	N/A	N/A	0.00	0.00	0.00
TCC	N/A	N/A	7.80	7.80	20.30

4. Price Control for Havant Thicket Activities

In respect of the Appointed Business's Havant Thicket Activities, there shall be one single Price Control:

- consisting of a limit on the total revenue (other than the revenue from Excluded Charges) allowed to the Appointed Business in each Charging Year in respect of Havant Thicket Activities; and
- set for a period of ten consecutive Charging Years starting on 1 April 2020.

For each Charging Year starting on or after 1 April 2020 the revenue allowed to the Appointed Business in respect of Havant Thicket Activities (other than revenue from Excluded Charges) shall be the product of the following formula:

Where:

UR_t means the total unadjusted allowed revenue as set out in Table 4A.

Table 4A: Price Control for Havant Thicket Activities "UR_t" numbers

Charging Year beginning 1 April	UR _t (£ million, 2017-18 FYA CPIH deflated prices)
2020	0.00
2021	0.00
2022	0.00
2023	0.00
2024	0.00
2025	0.00
2026	0.00
2027	0.00
2028	0.00
2029	0.00

5. Price Control for Residential Retail Activities

In respect of the Appointed Businesses' Retail Activities, there shall be one single Price Control for the Appointed Business's Retail Activities relating to the supply of water to household premises (as defined in section 17C of the Water Industry Act 1991) ("Residential Retail Activities").

The Price Control for Residential Retail Activities:

- shall consist of a limit on the total revenue allowed to the Appointed Business in each Charging Year in respect of the Retail Activities concerned; and
- is set for a period of five consecutive Charging Years starting on 1 April 2020.

The total unadjusted revenue, **TR**, allowed to the Appointed Business in each Charging Year in respect of Residential Retail Activities shall be the relevant amount set out in Table 6 as modified in accordance with the following formula:

$$R_t = TR_t + (AC_t - FC_t) \times M_t \times 1000$$

Where:

TR_t **Total Revenue** The total unadjusted allowed revenue expressed in outturn prices as set out in table 6;

ACt Actual Customers Actual customer numbers (meaning the average number of individual household premises (as defined in section 17C of the Water Industry

Act 1991) supplied or served by the Appointed Business in a Charging Year) expressed in thousands;

FC_t **Forecast Customers.** Forecast customer numbers in thousands set out in table 6;

M_t Modification Factor. The modification factors expressed in outturn prices set out in table 6.

Table 6: Price Control for Residential Retail Activities numbers

Charging year beginning 1 April	2020	2021	2022	2023	2024	2020-25
TR (£million, outturn)	4.720	4.790	4.864	4.940	5.023	N/A
M (£, outturn)	15.72	15.86	16.00	16.15	16.32	N/A
FC (thousands)	300.217	302.077	303.950	305.860	307.834	N/A

Note:

There is no Table 5 in this determination. This is a deliberate omission that is intended to ensure consistency in Table numbers between different companies.

6. Demonstrating Compliance with the Price Controls

The Appointee shall provide such information as Ofwat may reasonably require in relation to annual regulatory reporting to demonstrate how the Appointee is complying, or has complied, with its obligation to levy charges in a way best calculated to comply with each Price Control applicable to it.

Annex 1: Notified Items and Land Sales

Notified Items

Ofwat is not notifying the Appointee of any item that has not been allowed for (either in full or at all) when making the final determination of Price Controls.

Land sales

For the purposes of the Determination, Ofwat gives notice that for each of the five consecutive Charging Years starting on or after 1 April 2020:

- the value attributable to Relevant Disposals of Land allowed for in making the determination is zero; and
- variations in value received or expected to be received from Relevant Disposals
 of Land shall constitute a Relevant Change of Circumstance.

Annex 2: In-period Outcome Delivery Incentives (ODIs)

Ofwat notifies the Appointee in accordance with Part 3A of Condition B that the Price Controls determined in respect of the Appointee's Retail Activities, Water Resources Activities and Network Plus Water Activities may be adjusted to reflect the Appointee's performance in relation to the following Performance Commitments:

Table A2.1: In-period financial performance commitments - Common PCs

Name of Common Performance Commitment	Type of Outcome Delivery Incentive (ODI)	Price controls ODIs will apply to
Water quality compliance (CRI) [PR19PRT_PRT- Network Plus-01]	Financial - Under; In- period	Water network plus
Water supply interruptions [PR19PRT_PRT-Network Plus-02]	Financial - Out & under; In-period	Water network plus
Leakage [PR19PRT_PRT-Network Plus-07]	Financial - Out & under; In-period	Water network plus
Per capita consumption [PR19PRT_PRT-Water Resources 03]	Financial - Out & under; In-period	Water resources
Mains repairs [PR19PRT_PRT-Network Plus-03]	Financial - Under; In- period	Water network plus
Unplanned outage [PR19PRT_PRT-Network Plus-04]	Financial - Under; In- period	Water network plus
C-MeX: Customer measure of experience [PR19PRT_PRT-Retail-01]	Financial - Out & under; In-period	Residential retail

D-MeX: Developer	Financial - Out & under;	Water network plus
services measure of	In-period	
experience		
[PR19PRT_PRT-Network		
Plus-11]		

Note:

The listed Performance Commitments are set out in the document named **PR19 final determinations:**Portsmouth Water – Outcomes performance commitment appendix.

Table A2.2: In-period financial performance commitments - Bespoke PCs

Name of Bespoke Performance Commitment	Type of Outcome Delivery Incentive (ODI)	Price controls ODIs will apply to
Water quality contacts [PR19PRT_PRT-Network Plus-06]	Financial - Under; In- period	Water network plus
Low pressure [PR19PRT_PRT-Network Plus-05]	Financial - Under; In- period	Water network plus
Catchment Management [PR19PRT_PRT-Network Plus-08]	Financial - Out & under; In-period	Water network plus
Abstraction Incentive Mechanism [PR19PRT_PRT-Water Resources-02]	Financial - Out & under; In-period	Water resources
Biodiversity (penalty) [PR19PRT_PRT-Water Resources-06]	Financial - Under; In- period	Water network plus
Voids [PR19PRT_PRT- Retail-02]	Financial - Out & under; In-period	Residential retail
Affordability [PR19PRT_PRT-Retail- 03]	Financial - Under; In- period	Residential retail
Water Industry National Environment Programme [PR19PRT_NEP02]	Financial - Under; In- period	Water resources

Note:

The listed Performance Commitments are set out in the document named **PR19 final determinations:**Portsmouth Water – Outcomes performance commitment appendix.

Reconciliation for 2019-20 financial performance commitments

Ofwat further notifies the Appointee in accordance with Part 3A of Condition B that the Price Controls determined in respect of the Appointee's Retail Activities and Network Plus Water Activities may be adjusted to reflect the Appointee's performance in the Charging Year beginning on 1 April 2019 ("2019-20 Charging Year") in relation to all the Performance Commitments set out in the company-specific appendix (read together with any corrigenda published by Ofwat) to the determination of Price Controls by Ofwat pursuant to the 2014 Periodic Review. The adjustment to the relevant Price Control in relation to each such Performance Commitment would be the difference between:

(a) either:

- (i) the adjustment(s) to the revenue allowed to the Appointed Business that Ofwat made to reflect the Appointee's forecast performance in the 2019-20 Charging Year in relation to that Performance Commitment when determining, pursuant to the 2019 Periodic Review, the Price Controls for the five consecutive Charging Years beginning on 1 April 2020; or
- (ii) if there was no such adjustment, zero;

AND

(b) the adjustment(s) to revenue that Ofwat would have made when determining Price Controls pursuant to the 2019 Periodic Review if the Appointee's actual performance in the 2019-20 Charging Year in relation to that Performance Commitment had been known.

Annex 3: Revenue Forecasting Incentive formula

Ofwat notifies the Appointee for the purposes of sub-paragraph 8.1A of Condition B that sub-paragraph 8.1 of Condition B will not prevent the Appointee from levying charges to recover a Relevant Shortfall in the Charging Years beginning 1 April 2021, 1 April 2022, 1 April 2023 and 1 April 2024 (each of which will be a "Relevant Charging Year" for these purposes) where the "Relevant Shortfall" means any positive amount calculated for a Relevant Charging Year in accordance with the following formula:

Revenue Forecasting Incentive: Price Control for Network Plus Water Activities

The RFI for network plus water activities will be determined according to the following formula:

$$RFI_{t} = -(RR_{t-2} - AR_{t-2}) \times (1 + \frac{D}{100})^{2} \times (1 + CPIH_{t-1}) \times (1 + CPIH_{t})$$

$$-\,PS_{i,t}\,\,x\,\frac{PR}{100}\,\,x\,\big|\,\,RR_{t\text{-}2}^{\star}\,-\,AR_{t\text{-}2}^{\star}\,\big|\,\,x\,(\,\textbf{1}\,+\,\frac{D}{100})\,x\,(\,\textbf{1}\,+\,CPIH_{t\text{-}1}\,)\,\,x\,(\,\textbf{1}\,+\,CPIH_{t}\,)$$

The RFI for network plus water activities, $\mathbf{RFI_t}$, and any blind year adjustment, $\mathbf{BYA_t}$, is added to allowed revenues for network plus water activities, $\mathbf{R_t}$, to calculate adjusted allowed revenues for network plus water activities, according to the following formula:

$$AR_t = R_t + BYA_t + RFI_t$$

Revenue Forecasting Incentive: Price Control for Water Resources Activities

The RFI for water resources activities will be determined according to the following formula:

$$RFI_{t} = -(RR_{t-2} - AR_{t-2}) \times (1 + \frac{D}{100})^{2} \times (1 + CPIH_{t-1}) \times (1 + CPIH_{t})$$
PR

$$-\,PS_{i,t}\,\,x\,\frac{PR}{100}\,\,x\,\big|\,\,RR_{t\cdot 2}^{\star}\,-\,AR_{t\cdot 2}^{\star}\,\big|\,\,x\,(\,\mathbf{1}\,+\,\frac{D}{100})\,x\,(\,\mathbf{1}\,+\,CPIH_{t\cdot 1}\,)\,\,x\,(\,\mathbf{1}\,+\,CPIH_{t}\,)$$

The RFI for water resources, RFI_t and any blind year adjustment, BYA_t , is added to allowed revenues for water resources, R_t , to calculate adjusted allowed revenues for water resources, according to the following formula:

$$AR_t = R_t + BYA_t + RFI_t$$

Where for each of controls to which the RFI relates:

BYA_t = TBYA
$$x Y_t x \left(1 + \frac{D}{100}\right)^{T-2019} x$$
 CPIH adjustment factor_t

AR_{t-2} The adjusted allowed revenue stated in £ millions in charging year t-2 with the first year starting on 1 April 2020.

 RR_{t-2}^* This has the same meaning as RR_{t-2} , except in this case this applies to the <u>sum</u> of both the network plus water and water resources controls.

 AR_{t-2}^* This has the same meaning as AR_{t-2} , except in this case this applies to the <u>sum</u> of both the network plus water and water resource controls.

PR The penalty rate. Denoting the forecast error $(RR^*t-2 - AR^*t-2) / AR^*t-2 = x\%$, the penalty rate is:

- 3% for all variations if |x%| > 3%;
- 3% * (|x%| 2%)/(3% 2%) if $2\% < |x\%| \le 3\%$;
- zero if $|x\%| \le 2\%$.

The result enters the above formulas as a number. For example, for a penalty rate of 3%, PR enters the formula as number 3.

PS_{i,t} is the share of the penalty that the Appointee chooses to allocate to the control in charging year t,

- where i = network plus water or water resources control; and
- the **PS**_i values must sum to one² for each charging year.

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² That is, **PS**_{water resources} + **PS**_{water network plus} = **1**

BYAt The blind-year adjustment, stated in £ millions, to the allowed revenue of the network plus water or water resources control in each year over the charging years 2021/22 to 2024/25, inclusive.

TBYA = Blind year adjustment stated by Ofwat in 2017-18 year average prices. The blind year adjustment will be announced by Ofwat at a future date. The adjustment will be based on the difference between the Appointee's forecast and actual performance for the 2019-20 Charging Year in relation to the Wholesale Revenue Forecasting Incentive Mechanism and the Water Trading Incentive applied in relation to the 2015 to 2020 price control period. It will be a correction to the revenue allowed by Ofwat when determining, pursuant to the 2019 Periodic Review, the Price Controls for water resources, network plus water and network plus wastewater activities for the five consecutive Charging Years beginning on 1 April 2020. The adjustment will not include the 2019-20 performance commitments referred to in Annex 2.

Y_t is the share of the blind year adjustment that the company has elected to receive in period t of the AMP. This allows the company to spread the impact of the blind year adjustment over the relevant years. The Y_t values across all of the charging years for each relevant price control must

- sum to one, if the blind year adjustment is negative;
- sum to one or less, if the blind year adjustment is positive; and
- be greater than or equal to zero.

T = the year in which the relevant charging year begins – for example

- for the charging year 2022-23 then T = 2022;
- for the charging year 2023-24 then T = 2023; and
- for the charging year 2024-25 then T = 2024.

Annex 4: Glossary

Common terms used in formulae in the Determination and the annexes are defined below.

Term	Where used	Definition
t	All	A suffix added to a term to indicate the Charging Year.
t-1	All	A suffix added to a term to indicate the Prior Year. For example, R _{t-1} refers to the Charging Year starting one year before the start of relevant Charging Year.
t-2	All	A suffix added to a term to indicate the Charging Year commencing on 1 April immediately prior to the Prior Year. For example, Rt-2 refers to the Charging Year starting two years before the start of the relevant Charging Year.
Rt	Network plus water, water resources	Revenue stated in £ millions allowed to the Appointed Business in a Charging Year by a Price Control in respect of the activities concerned
RRt	RFI	The revenue stated in £ millions recovered by the Appointed Business in a Charging Year in outturn prices. In both RFI the first year, t, starts on 1 April 2022 so that year t -2 starts on 1 April 2020.
CPIH _t	Network plus water, water	The percentage change (expressed, in the case of an increase, as a positive number, in the case of a decrease, as a negative number, and, in the case of no change, as zero) in the Consumer Prices Index (H)

	resources, RFI	between that published for the month of November in the Prior Year and that published for the immediately preceding November.
FYA CPIH	Water resources	The percentage change (expressed, in the case of an increase, as a positive number, in the case of a decrease, as a negative number, and, in the case of no change, as zero) in the average level of the Consumer Prices Index (H) across the twelve months of the Charging Year compared to the average level of the Consumer Prices Index (H) across the twelve months of the Prior Year.
Kt	Network plus water, water resources	A specified number for the relevant Charging Year which may be a positive number or a negative number or zero.
D	Water resources, RFI	The specified discount rate, based on the weighted average cost of capital of 3.11
CPIH adjustment factor _t	Water resources, Havant Thicket, RFI	One plus the percentage change in the Consumer Prices Index (H) between that published for the month of November in the Prior Year and that published for November 2016.

Annex 5: Havant Thicket Activities

1 INTRODUCTION

This Annex sets out the activities carried out as part of the Appointed Business that are designated as Havant Thicket Activities under sub-paragraph 8.9 of Condition B of the Appointment.

Havant Thicket Activities - General

2 ACTIVITIES (GENERAL SCOPE – CONSTRUCTION PERIOD)

The Havant Thicket Activities shall include any and all activities related to any of the following:

- 2.1 design;2.2 construction;2.3 supply;
- 2.4 installation;
- 2.5 testing and commissioning;
- 2.6 maintenance;
- 2.7 protection and security;
- 2.8 operation (including filling and refilling Havant Thicket reservoir);
- 2.9 ownership;

of the works (whether temporary or permanent) constituting or reasonably attributable to the Havant Thicket reservoir and/or Associated Assets.

3 HAVANT THICKET ACTIVITIES (GENERAL – POST CONSTRUCTION PERIOD)

The Havant Thicket Activities shall include any and all activities related any of the following:

- 3.1 maintenance (including lifecycle replacements, as well as any periodic, routine and reactive maintenance and the term maintenance shall include the design, construction, installation, testing and commissioning of any works that form part of any maintenance activity);
- 3.2 protection and security;
- 3.3 operation (including filling and refilling the Havant Thicket reservoir); and
- 3.4 ownership,

of the Havant Thicket reservoir and/or Associated Assets.

Havant Thicket Activities - Specific

4 PLANT MATERIALS AND EQUIPMENT

The Havant Thicket Activities shall include any:

- 4.1 provision;
- 4.2 fabrication;
- 4.3 testing (including on-site and factory testing);
- 4.4 procurement; and
- 4.5 transportation,

of any plant, machinery, vehicles, materials and equipment to be used in connection with or as a part of any of the Havant Thicket Activities described in this Annex.

5 CONSENTS AND ASSET PROTECTION/THIRD PARTY AGREEMENTS

- 5.1 The Havant Thicket Activities shall include:
 - 5.1.1 preparing for;
 - 5.1.2 applying for;
 - 5.1.3 negotiating;
 - 5.1.4 obtaining;
 - 5.1.5 applying for;
 - 5.1.6 maintaining; and
 - 5.1.7 complying with (including undertaking any activity, services or works necessitated by),

any reserved matters, consents, permissions (including all necessary planning consent), licences, permits, approvals (including those from Ofwat, any Relevant Authority (including the Environment Agency), any utility or any other third party) related to the carrying out of any of the Havant Thicket Activities described in this Annex.

- 5.2 The Havant Thicket Activities shall include:
 - 5.2.1 putting in place;
 - 5.2.2 negotiating;
 - 5.2.3 maintaining; and
 - 5.2.4 complying with,

any asset protection agreements or other similar agreements protecting property or assets within the vicinity of the Havant Thicket reservoir or Associated Assets.

6 COMPLIANCE

The Havant Thicket Activities shall include any activity that is necessary in order to carry out any other Havant Thicket Activity described in this Annex in accordance with:

- 6.1 Law;
- 6.2 Consent;
- 6.3 the Appointment;
- 6.4 all Water Industry Documents;
- 6.5 any Direction; and/or
- 6.6 Good Industry Practice.

7 THE APPOINTEE'S NETWORK

The Havant Thicket Activities shall include:

- 7.1 the design, construction, testing, commissioning, operation and maintenance of any connection between the Havant Thicket reservoir and Associated Assets and the remainder of the Appointee's Network;
- 7.2 the operation of the Appointee's Network in such a way to enable any of the Havant Thicket Activities described in this Annex (including diversion of flows, provision of temporary flows, reduction and/or prevention of flows); and
- 7.3 implementing any temporary works and/or measures in the Appointee's Network to carry out any of the Havant Thicket Activities described in this Annex including during filling of the reservoir.

8 WATER SUPPLY

- 8.1 The Havant Thicket Activities shall include all those activities related to the Appointee supplying volumes of water to Southern Water pursuant to the BSA this shall include:
 - 8.1.1 the operation of the Appointee's Network in a way to support the water transfer from Farlington to Nelson;
 - 8.1.2 water treatment at Farlington Water Treatment Works;
 - 8.1.3 sampling at Farlington Water Treatment Works;
 - 8.1.4 water transfer at the River Itchen (or other point of supply);
 - 8.1.5 pumping of water to facilitate the transfer; and

- 8.1.6 any activities the Appointee has to undertake to supply water to Southern Water that are additional to those activities it would undertake in order to supply water to its own customers.
- 8.2 For the purposes of paragraph 8.1, it is acknowledged that the water supply under the BSA will not all necessarily arise from the Havant Thicket reservoir and may be sourced from other parts of the Appointee's Network from time to time.

9 LIAISON WITH SOUTHERN WATER

The Havant Thicket Activities shall include all engagement with Southern Water related to Havant Thicket reservoir and Associated Assets (including in order to fulfil the Appointee's obligations under the BSA) including:

- 9.1 negotiation and development of any BSA (or any amendment thereof);
- 9.2 any provision of materials and/or information; and
- 9.3 co-operation with any audit and other collaborative process with Southern Water.

10 TEMPORARY, ANCILLARY AND REMEDIAL WORKS

The Havant Thicket Activities shall include the design, construction, supply, security and protection, installation, inspection, testing and commissioning of all temporary, ancillary works and remedial works related to (or provided to facilitate in any way) the Havant Thicket reservoir and Associated Assets, including:

- 10.1 protection of existing assets (whether owned by a third party, the Appointee or Southern Water) potentially affected and/or impacted by the Havant Thicket reservoir and/or Associated Assets (or any of the Havant Thicket Activities described in this Annex), including any strengthening works:
- 10.2 demolition and site clearance (including disposal);
- 10.3 landscaping;
- 10.4 environmental mitigation works and activities;
- 10.5 worksite preparation, maintenance, access and establishment;
- 10.6 land remediation (including reinstatement of all highways, footpaths and hardstanding on or outside of any worksite that are damaged or temporarily modified as a result of any Havant Thicket Activity described in this Annex);
- 10.7 security and protection of any worksite and/or works (as well as any sites (or parts thereof) on which the constructed Havant Thicket reservoir and Associated Assets are based);
- 10.8 modifications to highways and public rights of way; and

10.9 provision and preparation of areas for storage of construction materials including temporary enclosures and workshops, equipment, fixed and mobile cranes and office facilities.

11 DOCUMENTATION

- 11.1 The Havant Thicket Activities shall include the preparation, review, amendment of, production of and presentation of all documentation and materials related to any of the Havant Thicket Activities described in this Annex.
- 11.2 The Havant Thicket Activities shall also include the provision of any warranties, guarantees and collateral warranties for plant, works, equipment and materials related to any Havant Thicket Activities described in this Annex.
- 11.3 The Havant Thicket Activities shall include the preparation of any submission or documentation to Ofwat or any other Relevant Authority (including the Environment Agency) by or on behalf of the Appointee in respect of the Havant Thicket reservoir or Associated Assets

12 UTILITIES

The Havant Thicket Activities shall include the provision of:

- 12.1 utilities (including water and power supplies (whether temporary or permanent) and the cost of continued provision of such supplies); and
- 12.2 drainage and sewerage services,

provided in respect of the design, construction, testing, commissioning, operations and maintenance of the Havant Thicket reservoir and/or Associated Assets (or provided to enable the Appointee to carry out any of the Havant Thicket Activities described in this Annex).

13 STAKEHOLDER ENGAGEMENT

The Havant Thicket Activities shall include any engagement with Southern Water, stakeholders, customers, local communities (including any public consultation or opinion survey) and third parties impacted (or that may be impacted) by any of the Havant Thicket Activities described in this Annex including monitoring and liaising with third parties whose activities may impact on or be impacted by the design, construction, testing, commissioning, operation and maintenance in respect of the Havant Thicket reservoir or Associated Assets (or any of the other Havant Thicket Activities described in this Annex). The Havant Thicket Activities shall also include the appointment, engagement with and arrangements for any independent advisory panels (such as a panel on environmental mitigation design) related to Havant Thicket reservoir or the Associated Assets.

14 SURVEYS AND INVESTIGATIONS

The Havant Thicket Activities shall include the planning and undertaking of any:

14.1 surveys;

- 14.2 impact studies;
- 14.3 monitoring;
- 14.4 instrumentation works and services;
- 14.5 studies:
- 14.6 assessments; and
- 14.7 investigations,

provided in respect of the design, construction, testing, commissioning, operation and maintenance of the Havant Thicket reservoir and/or Associated Assets (or provided to enable the Appointee to carry out any of the other Havant Thicket Activities described in this Annex).

15 SITE WELFARE

The Havant Thicket Activities shall include:

- 15.1 the provision of all site welfare facilities;
- 15.2 purchase of any necessary protective equipment; and
- 15.3 the provision of all workforce occupational health services, health and safety initiatives and wellbeing programmes,

provided in respect of or to enable any of the Havant Thicket Activities described in this Annex.

16 LAND

The Havant Thicket Activities shall include the negotiation, purchase (including payment of consideration) and maintenance (including compliance with all the requirements related to the interest in land) of land related to any of the Havant Thicket Activities described in this Annex. This shall include the acquisition of, or securing of appropriate interests in, all land necessary to design, construct, test, commission, operate and maintain the Havant Thicket reservoir and Associated Assets.

17 PROJECT MANAGEMENT SERVICES

The Havant Thicket Activities shall include the co-ordination and project management of all of the Havant Thicket Activities described in this Annex. This shall include co-ordination and management of various contractors, volunteers, sites, stakeholders, third parties and activities (as well as personnel of the Appointee itself).

18 CONTRACTORS

The Havant Thicket Activities shall include:

- 18.1 the engagement of all contractors and consultants appointed;
- 18.2 the engagement of any panel of experts regarding the Havant Thicket reservoir;

- 18.3 complying with the Appointee's obligations (including payment of all fees and expenses) under any contracts put in place; and
- 18.4 the administration of any contracts put in place,

to carry out or facilitate any of the Havant Thicket Activities described in this Annex.

19 LEGAL, FINANCIAL AND OTHER CONSULTANT SERVICES

The Havant Thicket Activities shall include:

- 19.1 the engagement of any legal, financial, economic or regulatory consultants appointed;
- 19.2 complying with the Appointee's obligations (including payment of all fees and expenses) under any contracts put in place; and
- 19.3 the administration of any contracts put in place,

to carry out or facilitate any of the Havant Thicket Activities described in this Annex.

20 PROCUREMENT

The Havant Thicket Activities shall include the procurement (including development of any procurement documentation, management of any procurement and any prior market engagement activities) of any contract put in place to carry out or facilitate any of the Havant Thicket Activities described in this Annex.

21 FINANCING

The Havant Thicket Activities shall include the financing by the Appointee of any of the Havant Thicket Activities described in this Annex.

22 INTELLECTUAL PROPERTY

The Havant Thicket Activities shall include the procurement, putting in place and maintenance of any licences in any intellectual property required to carry out and/or facilitate any of the Havant Thicket Activities described in this Annex. This includes licence fees for propriety software tools.

23 INSURANCE

The Havant Thicket Activities shall include the procurement, putting in place and maintenance of any insurance policy to carry out and/or facilitate any of the Havant Thicket Activities described in this Annex.

24 TAXATION

The Havant Thicket Activities shall include making necessary filings and payments of taxation resulting from any of the Havant Thicket Activities described in this Annex.

Interpretation

25 INTERPRETATION (GENERAL)

25.1 Unless the contrary intention appears, words and expressions used in this Annex shall have the same meaning as in the Conditions of the Appointment. For the purposes of this Annex, capitalised terms listed below shall have the meaning assigned to them:

Term	Definition
Appointee's Network	means the system of water supply (including any reservoirs and other places of storage, any treatment works, and any water mains and other pipes) which it is the Appointee's duty to develop and maintain by virtue of section 37 of the Water Industry Act 1991;
Appointment	means the appointment of Portsmouth Water Limited as a water undertaker for the purposes of Chapter I of Part II of the Water Industry Act 1991;
Associated Assets	means those assets more fully described in paragraphs 27 and 28 (below) of this Annex;
BSA	means the agreement between: (i) the Appointee and (ii) Southern Water related to the Havant Thicket Activities;
Consents	means all permissions, consents, approvals, certificates, permits, licences and authorisations (including any environmental permit and any abstraction licence);
Direction	means, any ordinance, code, decision, directive, order, decree, regulation, determination, award, standard or rule: (a) which is legally binding; and/or (b) with which a relevant undertaker would generally comply if it was acting in accordance with Good Industry Practice;
Good Industry Practice	means, acting in a good and workmanlike manner and exercising a degree of skill, care and diligence, which, at the relevant time, would reasonably and ordinarily be expected from a skilled and experienced water undertaker engaged in providing services of the same size, type, scope and complexity as the Appointee;

Havant Thicket Activities	means all of the activities described in this Annex (and "Havant		
	Thicket Activity" shall be construed accordingly to mean an		
	individual activity described in this Annex);		
Havant Thicket reservoir	means the reservoir described in paragraph 26 (below) of this		
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	Annex;		
Law	means any:		
	(a) Act of Parliament;		
	(b) subordinate legislation within the meaning of section 21(1) of		
	the Interpretation Act 1978;		
	(c) exercise of the Royal Prerogative; and/or		
	(d) enforceable European Union right,		
	which has the force of law in England.		
	Further, the definition of "Law" shall include (to the extent directly		
	binding on and/or enforceable against private persons within		
	England and Wales) any obligations arising from a treaty to which		
	the United Kingdom is a signatory;		
Relevant Authority	means any court within the relevant jurisdiction and any local,		
	national or supranational agency, inspectorate, minister, ministry,		
	official or public or statutory person of the government of the United		
	Kingdom or of the European Union which has jurisdiction over either		
	Party, including Ofwat;		
Water Industry Decrees			
Water Industry Document	means all codes and standards regulating the supply of water or the		
	design, construction, operation and/or maintenance of a network (or		
	part thereof) to supply water.		

- 25.2 References in this Annex to "includes", "including", "other" or any such similar terms are to be construed without limitation.
- 25.3 Any measurement provided for in this Annex is an approximation.
- 25.4 References in this Annex to the singular include use of the plural and vice versa.
- 25.5 No paragraph of this Annex shall be considered to be deleterious to any other paragraph of this Annex.
- 25.6 References in this Annex to "design" shall include design undertaken at any level or stage, including initial, feasibility, outline and/or detailed designs.

- 25.7 The designation under sub-paragraph 8.9 of Condition B of the Appointment of any activity included in this Annex as a Havant Thicket Activity does not:
 - 25.7.1 impose any obligation on the Appointee to carry out that activity;
 - 25.7.2 impose any obligation on Southern Water to pay for that activity; or
 - 25.7.3 require that activity to be carried out (if it is undertaken) with anything other than that degree of skill, diligence, industry knowledge and judgement and foresight which would reasonably and ordinarily be expected from a skilled and experienced efficient operator acting in the same type of undertaking or in similar circumstances and complying with Law.
- 25.8 The inclusion of any activity in the designation of Havant Thicket Activities will be deemed to include (as a separate activity for the purposes of this Annex) the payment of any fee, tariff, premium, charge, expense or cost payable as a result of or associated with that activity.
- 25.9 The inclusion of any Activity in this Annex will also include any preparation, drafting, negotiating, disputing, debating or discussion of that Activity.

Assets

26 HAVANT THICKET RESERVOIR: GENERAL SCOPE

- 26.1 The Havant Thicket reservoir will be a new build reservoir that will be situated on a 160-hectare site which has been owned by the Appointee since 1965 and sits next to Havant Thicket, Rowlands Castle, Staunton Country Park and Leigh Park. The Havant Thicket reservoir will be approximately one mile (1.6 km) from east to west, 0.5 miles (0.8 km) from north to south and able to hold a useable volume of approximately 8,700 Ml of water (although this capacity may vary based upon construction). A layout of the site proposed for Havant Thicket reservoir as at the date of the designation of Havant Thicket Activities is shown in Map 1 below.
- 26.2 As at the date of the designation of Havant Thicket Activities it is intended that the water to be stored in the Havant Thicket reservoir will be supplied from surplus winter yield pumped from the springs in Havant, which would normally flow out to sea at Langstone Harbour.
- 26.3 The Havant Thicket reservoir asset may include:

Item	Summary of what may be included (non-exhaustive and without limitation)
A. Embankment	Clay core earth retaining embankment constructed of materials taken from a borrow pit. Waterproofed reservoir walls and sides.
B. Embankment crest road and wall	Reservoir circumference access road and wall topping the embankment.
C. Hard landscaping	Embankment profiling to match surrounding area, operational and visitor access roads.
	Concrete box culvert through embankment — with internal walkway along its length. It is expected that the culvert will contain both an inlet / outlet pipe.
D. Culvert and access shaft	An access shaft will be part of Havant Thicket reservoir.

	Weir structure with upstand wall and handrailing
	around perimeter may be included. This may also include a rakeable trash screen around the
	perimeter of overflow structure, and overflow
E. Overflow spillway & pipeline	pipeline.
	Reservoir operational control house for
	discharge, level control and monitoring equipment. This will also include embankment
F. Control house	monitoring equipment.
	Public access pathways, bridleways and cycle
	paths, children's play areas, car parking, visitors
G. Reservoir additional facilities	centre and bird hides.
	A pipeline between the springs in Havant and
	the new reservoir – to fill the reservoir in winter
	and draw off supplies to transfer to its water
	treatment works. This pipeline will also provide
H. Inlet/outlet pipeline	an emergency discharge for the reservoir.
	Discharge structure includes energy dissipating
	stilling basins with baffle walls, and downstream
	bank scour protection at point of discharge into
I. Emergency discharge structure	the Hermitage Stream.
	Upgrade existing two pumps within Bedhampton
	pumping station (PS) to increase capacity from
	61 MI/d to up to a capacity sufficient to meet
	peak design capacity at Farlington Water
	Treatment Works.
	Replace two further existing diesel pumps at
	Bedhampton with new electric pumps to provide
J. Bedhampton pump capacity upgrade	back up resilience.
K. Pre-treatment works	New dissolved air floatation plant with max
K. FIE-HEAHHEIR WORKS	capacity of approximately 50Ml/d (peak flow)

and average flow rate of approximately 23Ml/d, located within disused slow sand filter tank. Located at Farlington Water Treatment Works including flocculators & clarification vessels, constant coagulation dosing, pH acid dosing, air saturator system, pipework, valving, instrumentation and control panel. Retrofitting of existing rapid gravity filters (RGFs) with granular activated carbon (GAC) media (assuming replacement of existing backwash pumps).

Dual the treatment streams through existing Farlington works for the RGFs, UV, contact tank processes. Including inlet chamber and pipework, new pipelines from RGF to UV building and UV building to contact tank, breakin to existing contact tank, duplication of key M&E equipment including critical control panels.

Local SCADA monitoring and control system located in the control house that includes telemetry outstation with a fixed communications link to the existing the Appointee's Telemetry Multiprotocol Label Switching (MPLS) network, allowing remote monitoring and control from the central telemetry master station including direct data transfer to Bedhampton PS. Also any MEICA systems required.

L. Control systems

27 ASSOCIATED ASSETS: GENERAL SCOPE OF THE BEDHAMPTON TO FARLINGTON UPGRADE SCHEME

27.1 Improvements to the condition of the principal raw water transfer 36" diameter trunk main between Bedhampton PS and Farlington Water Treatment Works in order to withstand increased flows and pressures.

28 ASSOCIATED ASSETS: GENERAL SCOPE OF THE FARLINGTON TO NELSON UPGRADE SCHEME

- 28.1 Improvement and modification to the treated water transfer mains between Farlington Water Treatment Works and Nelson Service Reservoir to facilitate supply of additional water to Southern Water. This will include:
 - 28.1.1 A new trunk main link from Farlington Water Treatment Works to Nelson Service Reservoir.
 - 28.1.2 A new pumping station at Farlington.
 - 28.1.3 Upgrades to the Appointee's Network capacity including:
 - (a) a new dividing wall inside the Nelson service reservoir;
 - (b) improvements to and amendments to the mains and pumps in order to achieve a re-profiling of existing pumped mains to allow the water to flow under gravity from Nelson Service Reservoir to Hoads Hill and Hoads Hill to River Itchen Water Treatment Works; and
 - (c) improvements and amendments to re-configure pipework at Nelson Service Reservoir, Hoads Hill and Gaters Mill sites.

Map 1 – Site proposed for the Havant Thicket reservoir



Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales.

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