



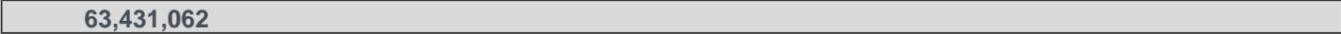
Tideway updated revised Revenue Statement 2018

Allowed Revenue for Charging Year 2019/20

IP Charge Notification - 2019/20

Submitted to Ofwat on 21 December 2018

IP Charge for 2019/20 (£)



November 2018 RPI



Source: ONS

Inputs

	Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20	Sixth Charging Year 2020/21	Seventh Charging Year 2021/22	Eighth Charging Year 2022/23
Year starts						01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019	01/04/2020	01/04/2021	01/04/2022
Year ends						31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020	31/03/2021	31/03/2022	31/03/2023
Year t-2						2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Year t-1						2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Year t						2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Year t+1						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Year t+2						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25

1.1 2014/15 RPI Adjustment Factor

Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences

%

Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018
Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)

						3.4%	3.1%	3.0%	3.1%	3.2%
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Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends

%

Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018
Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)

						3.1%	3.0%	3.1%	3.2%	
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RPI, September of Charging Year

Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics
Required by Project Licence Appendix 1, 1.1 (iii)

			257.6	259.6	264.9	275.1	284.1
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RPI, March of Charging Year

Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics
Required by Project Licence Appendix 1, 1.1 (iii)

254.8	257.1	261.1	269.3	278.3
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Applicable Change in Revenue RPI

RPIt (RPI for November in Charging Year Yt-1)

Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 19 December 2018, Office for National Statistics.
Required by Project Licence Appendix 1, Part A 3, 4 and 6

Note: for both First and Second Charging years, stated RPI is for November 2015, as Allowed Revenue for both these years is being calculated together

245.6	252.1	259.8	259.8	265.5	275.8	284.6
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Year average RPI

Source: Calculated from RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018 Office for National Statistics
Required by Project Licence Appendix 1, Part A 3, 4 and 6 and Appendix 1, 1.1 (iv)

	256.7	259.4	265.0	274.9
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A.3. Return on Capital and A.4 Liquidity

Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March

2014/15 prices, £

Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018
Required by Project Licence Appendix 1, Part A 3

0	0	148,741,346	478,533,658	962,316,426
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Allowable Project Spend (actual and forecast) - as at October 2018

Annual Actual Project Spend

Outturn prices, £

Source: "Allowable Project Spend Verification No 24.pdf"
Required by Project Licence Appendix 1, Part A 3

0	150,344,662	340,489,147	518,165,900	137,426,889
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Estimated Allowable Project Spend

Outturn prices, £

Source: "Regulation Reporting Sep18"
Required by Project Licence Appendix 1, Part A 3

0	0	0	0	101,284,597
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Forecast Allowable Project Spend

Outturn prices, £

Source: "Tideway Q1 June 18 Exp Forecast Model.xlsx"
The 2018/19 figure is net of expenditure already realised (Annual Actual Project Spend and Estimated Allowable Project Spend)
Required by Project Licence Appendix 1, Part A 3, 4

0	0	0	0	367,317,817	640,223,588	533,000,353
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Excluded Project Spend

Outturn prices, £

Source: 2015/16, 2016/17 and 2017/18: "Section 5 regulatory tables - calculation version - 2016-17" - table 5B to Ofwat
Source: 2018/19 year to date at September 2018: "Tables for Interim Financial Performance Report 2018-19" - ref Output 1
Note: For information (not required for Allowed Revenue calculation), backward-looking only. 2015/16 figure updated to reflect prior year adjustment made in 2016/17 annual reporting.

64,394,743	87,615,825	108,108,556	38,862,075
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Alliance Agreement receipts - expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above

Outturn prices, £

Source: Head of Commercial, Tideway
Notes: Zero prior to Licence award.
Required by Project Licence Appendix 2, 1.5

0	0	0	0	0	0
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BWACC

%

Source: Project Licence, Appendix 1, 1.18
Required by Project Licence Appendix 1, Part A 3, 4, 6, 7, 8

2.497%

A.5. Opex

Opex forecast as at October 2018

Outturn prices, £

Note: In line with the Project Licence, zero as all expenditure treated as capex.
Required by Project Licence Appendix 1, Part A 5

0	0	0	0	0
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A.6. Financing Cost Adjustment

Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March	%	Source: "FCA yield calculator.xlsx" Calculated with reference to iBoxx BBB data and spot implied inflation rates for 10 year maturity from Bank of England. Required by Project Licence Appendix 1, Part A 6	1.30%	1.43%	0.35%	0.01%
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Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March	Current prices at 31 March of Charging Year	Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018 Required by Project Licence Appendix 1, Part A 3	0	0	0	151,310,515	502,087,458	1,043,425,953
Net Debt at 31 March	Current prices at 31 March of Charging Year	Source: Tideway financial statements as at 31 March 2018 Required by Project Licence Appendix 1, Part A 6	0	0	0	130,376,913	315,869,558	-72,091,186
Notional Debt to RCV ratio	%	Source: Project Licence Appendix 1, 1.42 Required by Project Licence Appendix 1, Part A 6	62.5%					

A 1.4. Tax

Tax as at October 2018	Outturn prices, £	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4	0	0	0	0	0
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A.7. Under/Over Recovered Revenue Adjustment - as at October 2018

See Project Licence, Appendix 1, Part A.7

Allowed Revenue	£	Source: 2015, 2016 and 2017 Updated Revised Revenue Statements	33,603,285	28,559,132	49,235,940
Amount recovered in respect of Allowed Revenue (to end of September 2018)	Outturn prices, £	Source: Revenue Sep18.xls Note: Captures all 2016/17 and 2017/18 revenue received from Thames Water prior to the end of September 2018- this is based on revenue collected by Thames Water up to and including July 2018.	32,230,705	24,198,552	
Amount recovered in respect of Allowed Revenue (to end of September 2017)	Outturn prices, £	Source: Revenue Sep18.xls Note: Captures all 2016/17 revenue received from Thames Water prior to the end of September 2017- this is based on revenue collected by Thames Water up to and including July 2017.	31,009,138		
Years of NPV adjustment		Represents the number of years of NPV adjustment required - two years for a Charging Year being reconciled for the first time, and one year to reconcile further amounts received in respect of Charging Years already reconciled. See "Statement of Calculation 2018"	1	2	

Amounts received from TWUL in Charging Year (all years of Allowed Revenue)

Outturn prices, £

Source: Revenue Sep18.xls
 Note: Captures all 2016/17 and 2017/18 revenue received from Thames Water prior to the end of March 2018.
 Captures all 2017/18 revenue received from Thames Water prior to the end of March 2018.

26,747,386	26,791,391
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A.8. Reconciliation adjustment

See Project Licence, Appendix 1, Part A 8

Time since original calculation

Years

Represents the number of years since revenue was first calculated to feed into the NPV adjustment of the reconciliation adjustment.

Revenue for a given Charging Year is subject to building block reconciliation adjustment where estimated or forecast expenditure or inflation inputs were used the last time that year's revenue was calculated. Defined as follows: 1 = yes, 0= no

3	3	2	1	0
0	1	1	1	0
8,085,476	18,551,997	32,865,395	49,526,476	

Reconcile this year?

Allowed Revenue as per most recently submitted Revenue Statement (excluding building block reconciliation)

£

Source: Calculated from "updated revised Revenue Statement 2017", excluding building block reconciliation

A.11. Additional Return on Capital Building Block

Additional Allowable Project Spend

Not applicable at present. Inputs to be added if this building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

A 1.6.4. Net Present Value Adjustment

End of first charging year

Last day of the First Charging Year

Licence Award

Date of Licence award

31/03/2016
24/08/2015

BBRA Inputs 2017

	Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20	Sixth Charging Year 2020/21	Seventh Charging Year 2021/22
Year starts						01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019	01/04/2020	01/04/2021
Year ends						31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020	31/03/2021	31/03/2022
Year t-2						2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Year t-1						2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Year t						2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Year t+1						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Year t+2						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24

**1.1 2014/15
RPI
Adjustment
Factor**

Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.4%	3.1%	3.0%	3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.1%	3.0%	3.1%	3.2%
RPI, September of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics. Required by Project Licence Appendix 1, 1.1 (iii)			257.6	259.6	264.9	275.1	284.1			
RPI, March of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics. Required by Project Licence Appendix 1, 1.1 (iii)	254.8	257.1	261.1	269.3	278.3					

**Applicable
Change in
Revenue RPI**

RPIt (RPI for November in Charging Year Yt-1)

Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics. Estimate for November 2018 based on September 2018 RPI and Forecast RPI Adjustment Factor for 2018
Required by Project Licence Appendix 1, Part A 3, 4 and 6

Note: for both First and Second Charging years, stated RPI is for November 2015, as Allowed Revenue for both these years is being calculated together

UPDATED FOR RECONCILIATION "Source: Calculated from RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018 Office for National Statistics
Required by Project Licence Appendix 1, Part A 3, 4 and 6 and Appendix 1, 1.1 (iv)"

Year average RPI

245.6	252.1	259.8	259.8	265.5	275.8
	256.7	259.4	265.0	274.9	

A.3. Return on Capital and A.4 Liquidity

Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March

2014/15 prices, £

Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018
Required by Project Licence Appendix 1, Part A 3

0	0	148,741,346	478,533,658
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Allowable Project Spend (actual and forecast) - as at October 2018

Annual Actual Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Allowable Project Spend Verification No 24.pdf"
Required by Project Licence Appendix 1, Part A 3

0	150,344,662	340,489,147	518,165,900	137,426,889
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Estimated Allowable Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Regulation Reporting Sep18"
Required by Project Licence Appendix 1, Part A 3

0	0	0	0	101,284,597
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Forecast Allowable Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Tideway Q1 June 18 Exp Forecast Model.xlsx"
The 2018/19 figure is net of expenditure already realised (Annual Actual Project Spend and Estimated Allowable Project Spend)
Required by Project Licence Appendix 1, Part A 3, 4

0	0	0	0	367,317,817	640,223,588
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Excluded Project Spend

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Alliance Agreement receipts -

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above

BWACC	%	Source: Project Licence, Appendix 1, 1.18 Required by Project Licence Appendix 1, Part A 3, 4, 6, 7, 8	2.497%
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A.5. Opex

Opex forecast as at October 2018	Outturn prices, £	Note: In line with the Project Licence, zero as all expenditure treated as capex. Required by Project Licence Appendix 1, Part A 5	0	0	0	0
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A.6. Financing Cost Adjustment

Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March	%	Source: "FCA yield calculator.xlsx" Calculated with reference to iBoxx BBB data and spot implied inflation rates for 10 year maturity from Bank of England. Required by Project Licence Appendix 1, Part A 6	1.30%	1.43%	0.35%
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Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March	Current prices at 31 March of Charging Year	Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018 Required by Project Licence Appendix 1, Part A 3	0	0	0	151,310,515	502,087,458
Net Debt at 31 March	Current prices at 31 March of Charging Year	Source: Tideway financial statements as at 31 March 2018 Required by Project Licence Appendix 1, Part A 6	0	0	0	-130,376,913	-315,869,558
Notional Debt to RCV ratio	%	Source: Project Licence Appendix 1, 1.42 Required by Project Licence Appendix 1, Part A 6	62.5%				

A 1.4. Tax

Tax as at October 2018	Outturn prices, £	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4	0	0	0	0
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**A.7.
Under/Over
Recovered
Revenue
Adjustment -
as at October
2017**

See Project Licence, Appendix 1, Part A.7

Allowed Revenue
(including building
block reconciliation)

£

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Amount recovered in
respect of 2016/17
Allowed Revenue (to
end of September
2017)

Outturn
prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Amounts received
from TWUL in
Charging Year (all
years of Allowed
Revenue)

Outturn
prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

**A.8.
Reconciliation
adjustment**

See Project Licence, Appendix 1, Part A 8

Time since original
calculation

Years

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Reconcile this year?

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Allowed Revenue as
per most recently
submitted Revenue
Statement (excluding
building block
reconciliation)

£

Data removed as not required for reconciliation purposes. See "Inputs 2018".

**A.11.
Additional
Return on
Capital
Building
Block**

Additional Allowable
Project Spend

Not applicable at present. Inputs to be added if this building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the

*Threshold Outturn). See Project Licence,
Appendix 1, Part A 11*

**A 1.6.4. Net
Present Value
Adjustment**

End of first charging
year
Licence Award

*Last day of the First Charging Year
Date of Licence award*

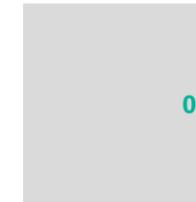
31/03/2016
24/08/2015

BBRA Calculation 2017

Building Block	Unit	Notes/description	2013/14	2014/15	First Charging Year	Second Charging Year	Third Charging Year	Fourth Charging Year
					2015/16	2016/17	2017/18	2018/19
Year starts					01/04/2015	01/04/2016	01/04/2017	01/04/2018
Year ends					31/03/2016	31/03/2017	31/03/2018	31/03/2019
Year t-2					2013/14	2014/15	2015/16	2016/17
Year t-1					2014/15	2015/16	2016/17	2017/18
Year t					2015/16	2016/17	2017/18	2018/19
Year t+1					2016/17	2017/18	2018/19	2019/20
Year t+2					2017/18	2018/19	2019/20	2020/21
		<i>A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1</i>						
1.1 2014/15 RPI Adjustment Factor								
(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ([2014/15]), using an adjustment factor derived from multiplying the factors set out in (i), (ii), (iii) and (iv) below;								
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 commences	%	<i>Forecast RPI - see input sheet for description of source</i>						3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 ends	%	<i>Forecast RPI - see input sheet for description of source</i>						3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt commences	%	<i>Forecast RPI - see input sheet for description of source</i>						3.4%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt ends	%	<i>Forecast RPI - see input sheet for description of source</i>						3.1%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt-1 commenced	%	<i>NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of Calculation 2018")</i>						2.2%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt commenced	%	<i>NEW ROW ADDED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of Calculation 2018")</i>						2.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 commenced	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>						0.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 ends	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>						0.0%

2014/15 RPI Adjustment Factor Yt-1		Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base	1.07
Annual Actual Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1	483,782,768
Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1	-
Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T-1	0
OPRCV Yt	£, 2014/15 prices	Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year	962,316,426
2014/15 RPI Adjustment Factor Yt		Scalar to adjust forecast costs for Charging Year T to 2014/15 price base	1.11
Annual Actual Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T	123,719,026
Estimated Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T	91,181,804
Forecast Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T	330,679,118
CPRCV Yt	£, 2014/15 prices	Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year	1,507,896,373
YARCV Yt	£, 2014/15 prices	Year average RCV for Charging Year T	1,235,106,400
A.4. Liquidity	£	The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4	14,820,981
OPRCV Yt+1	£, 2014/15 prices	Opening RCV for Charging Year T+1	1,507,896,373
2014/15 RPI Adjustment Factor Yt+1		Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base	1.14
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T+1	559,169,022
CPRCV Yt+1	£, 2014/15 prices	Closing RCV for Charging Year T+1	2,067,065,395
FYARCV Yt+1	£, 2014/15 prices	Average RCV for Charging Year T+1	1,787,480,884
A.5. Opex		In line with the Project Licence, the Opex building block is zero as all costs are accounted	0

Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV at the end of Charging Year T-3 in then current prices</i>	0	0	0	151,310,515
Notional Debt to RCV Ratio	%	<i>As defined in Project Licence Appendix 1, 1.42</i>	62.5%	62.5%	62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9</i>	0	0	0	94,569,072
Applicable Change in Revenue RPI for Charging Year Yt			1.01	1.01	1.03	1.07
Applicable Change in Revenue RPI for Charging Year Yt-2			0.96	0.98	1.01	1.01
A.1.4. Tax	£	<i>In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax See Project Licence Appendix 1, Part A 1.4</i>				0
A.7. Under/Over Recovered Revenue Adjustment	£	<i>REMOVED FROM THIS RECONCILIATION SHEET AS RECONCILED SEPARATELY, AS UNDER/OVER RECOVERED REVENUE IN RELATION TO ALL APPLICABLE CHARGING YEARS IS RECONCILED IN CALCULATION 2018. The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. See Project Licence, Appendix 1, Part A.7 Allowed Revenue as submitted in 2015 updated revised Revenue Statement Amount collected by Thames Water and received by Tideway in respect of 2016/17 Allowed Revenue, prior to the end of September 2017.</i>				
Allowed Revenue						
Amount recovered in respect of 2016/17 Allowed Revenue (to end of September 2017)						
Applicable Change in Revenue RPI (year in which original calculation was made)						
Applicable Change in Revenue RPI (current year)						
Reconciliation amounts (unadjusted)		<i>Difference between Allowed Revenue for a Charging Year and the amount collected by Thames Water and received by Tideway in respect of that Allowed Revenue. Reconciliation amount as calculated above,</i>				
Reconciliation amounts (NPV-adjusted)		<i>NPV-adjusted for the delay between the original Charging Year and the year of reconciliation using the BWACC and Applicable Change in Revenue RPI.</i>				



A.8. Reconciliation adjustment	£	<i>REMOVED FROM THIS RECONCILIATION SHEET AS RECONCILED SEPARATELY IN BBRA CALCULATION 2015 AND BBRA CALCULATION 2016 Reconciliation for updated expenditure and inflation data to reflect realised actuals and updated forecasts. See Project Licence, Appendix 1, Part A 8</i>
Reconcile this year?	n/a	<i>Revenue for a given Charging Year is subject to building block reconciliation adjustment where estimated or forecast expenditure or inflation inputs were used the last time that year's revenue was calculated. Defined as follows: 1 = yes, 0= no</i>
Time since original calculation	years	<i>Represents the number of years since revenue was first calculated to feed into the NPV adjustment of the reconciliation adjustment. Allowed Revenue recalculated using updated expenditure and inflation data. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation. See BBRA Calculation 2015 and BBRA Calculation 2016</i>
Allowed Revenue (as at October 2017)	£	<i>Allowed Revenue as submitted in 2016 updated revised Revenue Statement. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation.</i>
Allowed Revenue (as at October 2016)	£	<i>Allowed Revenue as submitted in 2016 updated revised Revenue Statement. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation.</i>
Applicable Change in Revenue RPI (year in which original calculation was made)		
Applicable Change in Revenue RPI (current year)		
Reconciliation amounts (unadjusted)	£	<i>Adjustment calculated as difference between updated calculation and previous year's calculation, prior to NPV adjustment.</i>
Reconciliation amounts (NPV-adjusted)	£	<i>Adjustment calculated as difference between updated calculation and previous year's calculation, post NPV-adjustment using BWACC and Applicable Change in Revenue RPI.</i>
A.11. Additional Return on Capital Building Block	£	<i>Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11</i>
A.11. Additional Liquidity Building Block	£	<i>Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11</i>

	Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20	Sixth Charging Year 2020/21
Year starts						01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019	01/04/2020
Year ends						31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020	31/03/2021
Year t-2						2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Year t-1						2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Year t						2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Year t+1						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Year t+2						2017/18	2018/19	2019/20	2020/21	2021/22	2022/23

**1.1 2014/15
RPI
Adjustment
Factor**

Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.4%	3.1%	3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.1%	3.0%	3.1%
RPI, September of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics. Required by Project Licence Appendix 1, 1.1 (iii)			257.6	259.6	264.9	275.1	284.1		
RPI, March of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics Required by Project Licence Appendix 1, 1.1 (iii)	254.8	257.1	261.1	269.3	278.3				

**Applicable
Change in
Revenue RPI**

RPIt (RPI for November in Charging Year Yt-1)		Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018, Office for National Statistics. Estimate for November 2018 based on September 2018 RPI and Forecast RPI Adjustment Factor for 2018 Required by Project Licence Appendix 1, Part A 3, 4 and 6 Note: for both First and Second Charging years, stated RPI is for November 2015, as Allowed Revenue for both these years is being calculated together	245.6	252.1	259.8	259.8	265.5				
Year average RPI		UPDATED FOR RECONCILIATION "Source: Calculated from RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018 Office for National Statistics Required by Project Licence Appendix 1, Part A 3, 4 and 6 and Appendix 1, 1.1 (iv)"		256.7	259.4	265.0	274.9				

A.3. Return on Capital and A.4 Liquidity

Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March

2014/15 prices, £

Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018
Required by Project Licence Appendix 1, Part A 3

0	0	148,741,346
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Allowable Project Spend (actual and forecast) - as at October 2018

Annual Actual Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Allowable Project Spend Verification No 24.pdf"
Required by Project Licence Appendix 1, Part A 3

Estimated Allowable Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Regulation Reporting Sep18"
Required by Project Licence Appendix 1, Part A 3

Forecast Allowable Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Tideway Q1 June 18 Exp Forecast Model.xlsx"
The 2018/19 figure is net of expenditure already realised (Annual Actual Project Spend and Estimated Allowable Project Spend)
Required by Project Licence Appendix 1, Part A 3, 4

0	150,344,662	340,489,147	518,165,900	137,426,889
0	0	0	0	101,284,597
0	0	0	0	367,317,817

Excluded Project Spend

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

Alliance Agreement receipts - expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2018".

BWACC

%

Source: Project Licence, Appendix 1, 1.18
Required by Project Licence Appendix 1, Part A 3, 4, 6, 7, 8

2.497%

A.5. Opex

Opex forecast as at October 2018

Outturn prices, £

Note: In line with the Project Licence, zero as all expenditure treated as capex.
Required by Project Licence Appendix 1, Part A 5

0	0	0
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A.6. Financing Cost Adjustment

Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March

%

Source: "FCA yield calculator.xlsx"
Calculated with reference to iBoxx BBB data and spot implied inflation rates for 10 year maturity from Bank of England.
Required by Project Licence Appendix 1, Part A 6

1.30%	1.43%
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Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March

Current prices at 31 March of Charging Year

Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018
Required by Project Licence Appendix 1, Part A 3

0	0	0	151,310,515
0	0	0	-130,376,913

Net Debt at 31 March

Current prices at 31 March of Charging Year

Source: Tideway financial statements as at 31 March 2018
Required by Project Licence Appendix 1, Part A 6

Notional Debt to RCV ratio

%

Source: Project Licence Appendix 1, 1.42
Required by Project Licence Appendix 1, Part A 6

62.5%

A 1.4. Tax

Tax as at October 2018

Outturn prices, £

In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax.
See Project Licence Appendix 1, Part A 1.4

0	0	0
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A.7. Under/Over Recovered Revenue Adjustment - as at October 2016

Allowed Revenue

£

Data removed as not required for reconciliation purposes.

Amount recovered in respect of IP Charge as at end of [Charging Year T-3]

£

Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. In future years, source will be IP regulatory accounts.

Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-2]

£

Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. In future years, source will be IP internal accounting records.

Amount recovered in respect of IP Charge as at end of [Charging Year T-2]
Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-1]

£

Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. In future years, source will be IP regulatory accounts.

£

Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. In future years, source will be IP internal accounting records.

A.8. Reconciliation adjustment

Time since most recent calculation
Reconcile this year?
Allowed Revenue as per most recently submitted Revenue Statement

Years

See Project Licence, Appendix 1, Part A 8

Data removed as not required for reconciliation purposes.

Data removed as not required for reconciliation purposes.

£

Data removed as not required for reconciliation purposes.

A.11. Additional Return on Capital Building Block

Additional Allowable Project Spend

Not applicable at present. Inputs to be added if this building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

A 1.6.4. Net Present Value Adjustment

End of first charging year
Licence Award

Data removed as not required for reconciliation purposes.

Data removed as not required for reconciliation purposes.

BBRA Calculation 2016

Building Block

Unit	Notes/description	2013/14	2014/15	First Charging Year	Second Charging Year	Third Charging Year
				2015/16	2016/17	2017/18
Year starts				01/04/2015	01/04/2016	01/04/2017
Year ends				31/03/2016	31/03/2017	31/03/2018
Year t-2				2013/14	2014/15	2015/16
Year t-1				2014/15	2015/16	2016/17
Year t				2015/16	2016/17	2017/18
Year t+1				2016/17	2017/18	2018/19
Year t+2				2017/18	2018/19	2019/20

1.1 2014/15 RPI Adjustment Factor

A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1

(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ([2014/15]), using an adjustment factor derived from multiplying the factors set out in (i), (ii), (iii) and (iv) below;

Forecast RPI

Adjustment Factor for the calendar year in which Charging Year Yt+1 commences

%

Forecast RPI - see input sheet for description of source

3.4%

Forecast RPI

Adjustment Factor for the calendar year in which Charging Year Yt+1 ends

%

Forecast RPI - see input sheet for description of source

3.1%

Forecast RPI

Adjustment Factor for the calendar year in which Charging Year Yt commences

%

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

0.0%

Forecast RPI

Adjustment Factor for the calendar year in which Charging Year Yt ends

%

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

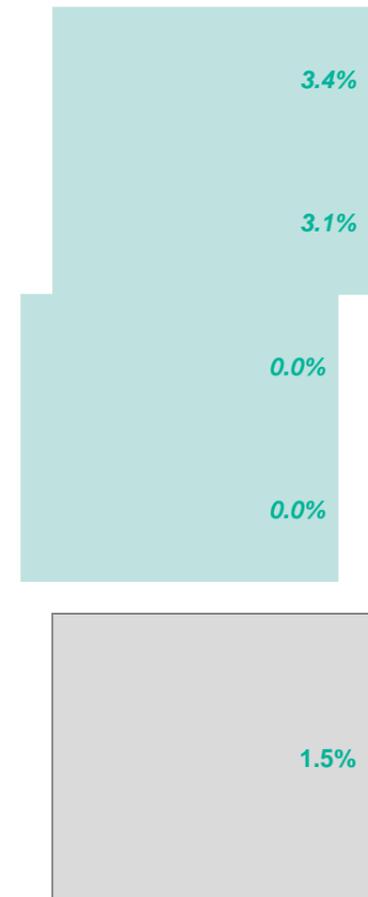
0.0%

Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt-1 commenced

%

NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")

1.5%



Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt commenced

NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")

2.2%

Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt+1 commenced

NEW ROW ADDED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")

2.1%

Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 commenced

%

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

0.0%

Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 ends

%

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

0.0%

Base RPI Charging Year Yt-2, or where this is on or before Base RPI Index year, 2014/15

Year average RPI for 2014/15, used as base year RPI

256.7

Charging Year Yt-1

Year average RPI for Charging year T-2 (or 2014/15 where this is later)

259.4

Charging Year Yt

NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging Year T-1

265.0

NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging year T

274.9

1.1 (i)

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T+1 to Charging Year T

1.04

1.1 (ii)

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T to Charging Year T-1

1.04

1.1 (iii)

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T-1 to Charging Year T-2

1.02

1.1 (iv)

Factor used to adjust prices from Charging Year T-2 to Charging Year T-3

1.01

RPI Adjustment Factor Charging Year T+1	Combines factors (i), (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T+1 to 2014/15 price base.	1.11
RPI Adjustment Factor Charging Year T	Combines factors (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T to 2014/15 price base	1.07
RPI Adjustment Factor Charging Year T-1	Combines factors (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T-1 to 2014/15 price base	1.03
RPI Adjustment Factor Charging Year T-2	Equal to factor (iv) above - used to adjust prices from Charging Year T-2 to 2014/15 price base.	1.01

Applicable Change in Revenue RPI

RPIt
RPIbase (Base RPI Index)

RPI in November of previous Charging Year relative to 2014/15 base year

RPI in November of Charging Year T-1

Average RPI for 2014/15

0.96	0.98	1.01	1.01	1.03
245.6	252.1	259.8	259.8	265.5
256.7	256.7	256.7	256.7	256.7

A.1. Allowed Revenue

£

Total Allowed Revenue calculated as the total of the building blocks below, in accordance with Project Licence, Appendix 1, 1.4. See Statement of calculation 2018 for further detail.

31,902,004

A.3. Return on Capital

£

The Return on Capital building block allows the IP to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. See Project Licence, Appendix 1, Part A 3

18,608,116

Ofwat Stated RCV for Yt-2

£,
2014/15
prices

RCV at the end of Charging Year T-2 as published by Ofwat by 1 September following the end of the Charging Year

148,741,346

OPRCV Yt-1

£,
2014/15
prices

Opening RCV for Charging Year T-1.

148,741,346

2014/15 RPI Adjustment Factor Yt-1

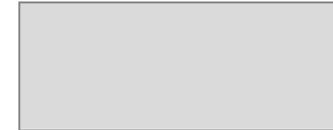
Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base

1.03

Annual Actual Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1</i>	329,792,312
Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1</i>	0
Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend forecast to be incurred in Charging Year T-1</i>	0
OPRCV Yt	£, 2014/15 prices	<i>Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year</i>	478,533,658
2014/15 RPI Adjustment Factor Yt		<i>Scalar to adjust forecast costs for Charging Year T to 2014/15 price base</i>	1.07
Annual Actual Project Spend Yt	£, 2014/15 prices	<i>Allowable Project Spend (verified by the ITA) incurred in Charging Year T</i>	483,782,768
Estimated Allowable Project Spend Yt	£, 2014/15 prices	<i>Allowable Project Spend (not verified by the ITA) incurred in Charging Year T</i>	0
Forecast Allowable Project Spend Yt	£, 2014/15 prices	<i>Allowable Project Spend forecast to be incurred in Charging Year T</i>	0
CPRCV Yt	£, 2014/15 prices	<i>Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year</i>	962,316,426
YARCV Yt	£, 2014/15 prices	<i>Year average RCV for Charging Year T</i>	720,425,042
A.4. Liquidity	£	<i>The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4</i>	13,293,889
OPRCV Yt+1	£, 2014/15 prices	<i>Opening RCV for Charging Year T+1</i>	962,316,426
2014/15 RPI Adjustment Factor Yt+1		<i>Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base</i>	1.11
Annual Actual Project Spend for year Yt+1	£, 2014/15 prices	<i>NEW ROW ADDED FOR RECONCILIATION Allowable Project Spend (verified by the ITA) incurred in Charging Year T+1</i>	123,719,025.67
Estimated Allowable Project Spend for year Yt+1	£, 2014/15 prices	<i>NEW ROW ADDED FOR RECONCILIATION Allowable Project Spend (not verified by the ITA) incurred in Charging Year T+1</i>	91,181,803.99
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	<i>Allowable Project Spend forecast to be incurred in Charging Year T+1</i>	330,679,118
CPRCV Yt+1	£, 2014/15 prices	<i>Closing RCV for Charging Year T+1</i>	1,507,896,373

	(March of Charging Year T-2)				
Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>Net Debt at the end of Charging Year T-3 as defined in Project Licence Appendix 1, 1.41</i>	0	0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV at the end of Charging Year T-3 in then current prices</i>	0	0	0
Notional Debt to RCV Ratio	%	<i>As defined in Project Licence Appendix 1, 1.42</i>	62.5%	62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9</i>	0	0	0
Applicable Change in Revenue RPI for Charging Year Yt			1.01	1.01	1.03
Applicable Change in Revenue RPI for Charging Year Yt-2			0.96	0.98	1.01
A.1.4. Tax	£	<i>In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4</i>			0
A.7. Under/Over Recovered Revenue Adjustment	£	<i>The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 was the first year the Allowed Revenue calculation was made. See Project Licence, Appendix 1, Part A.7</i>			0
A.8. Reconciliation adjustment	£	<i>REMOVED FROM THIS RECONCILIATION SHEET AS RECONCILED SEPARATELY IN BBRA CALCULATION 2015 Reconciliation for updated expenditure and inflation data to reflect realised</i>			0

actuals and updated forecasts. See Project Licence, Appendix 1, Part A 8



Reconcile this year?	n/a	Revenue for a given Charging Year is subject to building block reconciliation adjustment where estimated or forecast expenditure or inflation inputs were used the last time that year's revenue was calculated. Defined as follows: 1 = yes, 0= no
Time since most recent calculation	years	Represents the number of years since revenue was most recently calculated to feed into the NPV adjustment of the reconciliation adjustment. Allowed Revenue recalculated using updated expenditure and inflation data. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation. See BBRA Calculation 2015
Allowed Revenue (as at October 2016)	£	Allowed Revenue as submitted in 2015 updated revised Revenue Statement. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation.
Allowed Revenue (as at October 2015)	£	
Applicable Change in Revenue RPI (year in which original calculation was made)		
Applicable Change in Revenue RPI (current year)		
Reconciliation amounts (unadjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, prior to NPV adjustment
Reconciliation amounts (NPV-adjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, post NPV-adjustment using BWACC and Applicable Change in Revenue RPI
A.11. Additional Return on Capital Building Block	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11
A.11. Additional Liquidity Building Block	£	Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

BBRA Inputs 2015

	Unit	Source/notes	2012/13	2013/14	2014/15	First Charging Year 2015/16	Second charging year 2016/17	Third Charging Year 2017/18	Fourth Charging Year 2018/19	Fifth Charging Year 2019/20
Year starts						01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019
Year ends						31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020
Year t-2						2013/14	2014/15	2015/16	2016/17	2017/18
Year t-1						2014/15	2015/16	2016/17	2017/18	2018/19
Year t						2015/16	2016/17	2017/18	2018/19	2019/20
Year t+1						2016/17	2017/18	2018/19	2019/20	2020/21
Year t+2						2017/18	2018/19	2019/20	2020/21	2021/22

**1.1 2014/15
RPI
Adjustment
Factor**

Forecast RPI Adjustment Factor for the calendar year in which Charging Year commences	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.4%	3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year ends	%	UPDATED FOR RECONCILIATION Source: Average independent new forecasts for RPI, Table M3, "Forecasts for the UK economy: a comparison of independent forecasts", HM Treasury, August 2018 Required by Project Licence Appendix 1, 1.1 (i), (ii), (iii)							3.1%	3.0%
RPI, September of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2017, Office for National Statistics. Required by Project Licence Appendix 1, 1.1 (iii)			257.6	259.6	264.9	275.1		
RPI, March of Charging Year		UPDATED FOR RECONCILIATION Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 13 June 2017, Office for National Statistics Required by Project Licence Appendix 1, 1.1 (iii)	254.8	257.1	261.1	269.3				
Applicable Change in Revenue RPI										
RPIt (RPI for November in Charging Year Yt-1)		Source: RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, November 2015, Office for National Statistics. Required by Project Licence Appendix 1, Part A 3, 4 and 6 Note: for both First and Second Charging years, stated RPI is for November 2015, as Allowed	245.6	252.1	259.8	259.8				

Revenue for both these years is being calculated together

UPDATED FOR RECONCILIATION "Source: Calculated from RPI (All Items) index, Consumer Price Inflation Reference Tables, Table 36, 17 October 2018 Office for National Statistics Required by Project Licence Appendix 1, Part A 3, 4 and 6 and Appendix 1, 1.1 (iv)"

Year average RPI

	256.7	259.4	265.0
			274.9

A.3. Return on Capital and A.4 Liquidity

Water Services Regulation Authority Stated RCV (2014/15 Prices) at 31 March

2014/15 prices, £

Source: Regulatory Capital Values - Bazalgette Tunnel Limited (Tideway), 1 August 2018 Required by Project Licence Appendix 1, Part A 3

0	0
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Allowable Project Spend (actual and forecast) - as at October 2018

Annual Actual Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Allowable Project Spend Verification No 24.pdf" Required by Project Licence Appendix 1, Part A 3

Estimated Allowable Project Spend

Outturn prices, £

UPDATED FOR RECONCILIATION Source: "Regulation Reporting Sep18" Required by Project Licence Appendix 1, Part A 3
 UPDATED FOR RECONCILIATION Source: "Tideway Q1 June 18 Exp Forecast Model.xlsx" The 2018/19 figure is net of expenditure already realised (Annual Actual Project Spend and Estimated Allowable Project Spend) Required by Project Licence Appendix 1, Part A 3, 4

Forecast Allowable Project Spend

Outturn prices, £

Excluded Project Spend

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2017".

Alliance Agreement receipts - expenditure funded by these receipts is treated as Excluded Project Spend and therefore is excluded from the Allowable spend metrics set out above

Outturn prices, £

Data removed as not required for reconciliation purposes. See "Inputs 2017".

0	150,344,662	340,489,147	518,165,900
0	0	0	0
0	0	0	0

BWACC	%	Source: Project Licence, Appendix 1, 1.18 Required by Project Licence Appendix 1, Part A 3, 4, 6, 7, 8	2.497%
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A.5. Opex

Opex forecast as at October 2018	Outturn prices, £	Note: In line with the Project Licence, zero as all expenditure treated as capex. Required by Project Licence Appendix 1, Part A 5	0	0
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A.6. Financing Cost Adjustment

Financing Cost Adjustment Index Yield - 12 months trailing average at 31 March	%	UPDATED FOR REVISED BANK OF ENGLAND DATA Source: "FCA yield calculator.xlsx" Calculated with reference to iBoxx BBB data and spot implied inflation rates for 10 year maturity from Bank of England. Required by Project Licence Appendix 1, Part A 6	1.30%
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Water Services Regulation Authority Adjusted RCV (Current Prices) at 31 March	Current prices at 31 March of Charging Year	Source: Ofwat published figure, zero prior to Licence award Required by Project Licence Appendix 1, Part A 6	0	0	0
Net Debt at 31 March	Current prices at 31 March of Charging Year	Source: IP regulatory accounts, zero prior to Licence award Required by Project Licence Appendix 1, Part A 6	0	0	0
Notional Debt to RCV ratio	%	Source: Project Licence Appendix 1, 1.42 Required by Project Licence Appendix 1, Part A 6			62.5%

A 1.4. Tax

Tax as at October 2017	Outturn prices, £	In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax. See Project Licence Appendix 1, Part A 1.4	0	0
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A.7. Under/Over Recovered Revenue Adjustment -

See Project Licence, Appendix 1, Part A.7

**as at October
2015**

Allowed Revenue	£	<i>Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be previous Revenue Statements.</i>
Amount recovered in respect of IP Charge as at end of [Charging Year T-3]	£	<i>Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP regulatory accounts.</i>
Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-2]	£	<i>Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP internal accounting records.</i>
Amount recovered in respect of IP Charge as at end of [Charging Year T-2]	£	<i>Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP regulatory accounts.</i>
Amount recovered in respect of IP Charge April - September accounting periods [Charging Year T-1]	£	<i>Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. In future years, source will be IP internal accounting records.</i>

**A.8.
Reconciliation
adjustment**

See Project Licence, Appendix 1, Part A 8

Time since first calculation	Years	<i>Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. This input will represent the number of years since revenue was first calculated to feed into the NPV adjustment of the reconciliation adjustment.</i>
Reconcile this year?		<i>Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. In future, this input will be defined as follows: 1 = yes, 0= no</i>

**A.11.
Additional
Return on**

Capital Building Block

Additional Allowable Project Spend

Not applicable at present. Inputs to be added if this building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

A 1.6.4. Net Present Value Adjustment

End of first charging year
Licence Award

*Last day of the First Charging Year
Date of Licence award*

31/03/2016
24/08/2015

Building Block	Unit	Notes/description	2013/14	2014/15	First Charging Year	Second Charging Year
					2015/16	2016/17
Year starts					01/04/2015	01/04/2016
Year ends					31/03/2016	31/03/2017
Year t-2					2013/14	2014/15
Year t-1					2014/15	2015/16
Year t					2015/16	2016/17
Year t+1					2016/17	2017/18
Year t+2					2017/18	2018/19
1.1 2014/15 RPI Adjustment Factor		<i>A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1</i>				
(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ([2014/15]), using an adjustment factor derived from multiplying the factors set out in (i), (ii), (iii) and (iv) below;						
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 commences	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>				0.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 ends	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>				0.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt commences	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>				0.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt ends	%	<i>NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source</i>				0.0%
Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the	%	<i>NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")</i>				1.0%

period April to September in the calendar year in which Charging Year Yt-1 commenced

Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt commenced

Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt+1 commenced

Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 commenced

%

Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt-1 ends

%

Base RPI Charging Year Yt-2, or where this is on or before Base RPI Index year, 2014/15

Charging Year Yt-1

Charging Year Yt

Charging Year Yt+1

1.1 (i)

1.1 (ii)

1.1 (iii)

1.1 (iv)

RPI Adjustment Factor Charging Year T+1

NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")

NOT USED FOR RECONCILIATION Calculated with reference to the index values for March and September to capture April to September inflation (see "Statement of calculation 2018")

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

NOT USED FOR RECONCILIATION Forecast RPI - see input sheet for description of source

Year average RPI for 2014/15, used as base year RPI

Year average RPI for Charging year T-2 (or 2014/15 where this is later)

NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging year T-1

NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging year T

NEW ROW ADDED FOR RECONCILIATION Year average RPI for Charging year T+1

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T+1 to Charging Year T

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T to Charging Year T-1

CALCULATION ALTERED FOR RECONCILIATION Factor used to adjust prices from Charging Year T-1 to Charging Year T-2

Factor used to adjust prices from Charging Year T-2 to Charging Year T-3

Combines factors (i), (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T+1 to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T

1.5%
2.2%

0.0%
0.0%

256.7
256.7
259.4
265.0
274.9

1.04
1.02
1.01

1.00

1.03	1.07
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RPI Adjustment Factor Charging Year T		Combines factors (ii), (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T-1	1.01	1.03
RPI Adjustment Factor Charging Year T-1		Combines factors (iii) and (iv) above to calculate factor used to adjust prices from Charging Year T-1 to 2014/15 price base. For First Charging Year, use calculations from Second Charging Year in relation to Charging Year T-2	1.00	1.01
RPI Adjustment Factor Charging Year T-2		Equal to factor (iv) above - used to adjust prices from Charging Year T-2 to 2014/15 price base. Set equal to 1 for Second Charging Year as Year T-2 is equal to base year		1.00

Applicable Change in Revenue RPI		RPI in November of previous Charging Year relative to 2014/15 base year	0.96	0.98	1.01	1.01
RPI _t		RPI in November of Charging Year T-1	245.6	252.1	259.8	259.8
RPI _{base} (Base RPI Index)		Average RPI for 2014/15	256.7	256.7	256.7	256.7

A.1. Allowed Revenue	£	Total Allowed Revenue calculated as the total of the building blocks below, in accordance with Project Licence, Appendix 1, 1.4. See Statement of calculation 2018 for further detail. Second Charging Year Allowed Revenue incorporates Allowed Revenue for First Charging Year.	7,927,134	26,294,096
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A.3. Return on Capital	£	The Return on Capital building block allows the IP to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. See Project Licence, Appendix 1, Part A 3	1,879,706	7,927,134
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Ofwat Stated RCV for Yt-2	£, 2014/15 prices	RCV at the end of Charging Year T-2 as published by Ofwat by 1 September following the end of the Charging Year	0	0
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OPRCV Yt-1	£, 2014/15 prices	Opening RCV for Charging Year T-1. Zero for both the First and Second Charging Years	0	0
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2014/15 RPI Adjustment Factor Yt-1		Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base	1.00	1.01
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Annual Actual Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1	0	148,741,346
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Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1	0	0
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Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T-1	0	0
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OPRCV Yt	£, 2014/15 prices	Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year	0	148,741,346
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2014/15 RPI Adjustment Factor Yt		Scalar to adjust forecast costs for Charging Year T to 2014/15 price base	1.01	1.03
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Annual Actual Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T	148,741,346	329,792,312
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Estimated Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T	0	0
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Forecast Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T	0	0
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CPRCV Yt	£, 2014/15 prices	Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year	148,741,346	478,533,658
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YARCV Yt	£, 2014/15 prices	Year average RCV for Charging Year T	74,370,673	313,637,502
A.4. Liquidity	£	<i>The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4</i>	6,047,428	10,281,485
OPRCV Yt+1	£, 2014/15 prices	Opening RCV for Charging Year T+1	148,741,346	478,533,658
2014/15 RPI Adjustment Factor Yt+1		Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base	1.03	1.07
Annual Actual Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend (verified by the ITA) incurred in Charging Year T+1	329,792,312	483,782,768
Estimated Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T+1	0	0
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T+1	0	0
CPRCV Yt+1	£, 2014/15 prices	Closing RCV for Charging Year T+1	478,533,658	962,316,426
FYARCV Yt+1	£, 2014/15 prices	Average RCV for Charging Year T+1	313,637,502	720,425,042
A.5. Opex		<i>In line with the Project Licence, the Opex building block is zero as all costs are accounted for as capital expenditure. See Project Licence, Appendix 1, Part A 5</i>	0	0
A.6. Financing Cost Adjustment building block		<i>The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, by comparing a measure of financing costs at an annual reference point to a base reference point of March 2015. See Project Licence, Appendix 1, Part A 6</i>	0	0
Financing Cost Adjustment Yt			0	0
Financing Cost Adjustment Index Yield	%	See Project Licence Appendix 1, Part A 6.3	1.30%	
Base Reference Point (BRP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015	1.30%	1.30%
Annual Reference Point (ARP)	%	The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year Yt-2	1.30%	1.30%
BRP-ABP	%	Difference between BRP and ARP	0.0%	0.0%
Market Cost of Debt Adjustment Factor	%	See Project Licence Appendix 1 Part A 6.7	0.0%	0.0%
Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	Net Debt at the end of Charging Year T-2 as defined in Project Licence Appendix 1, 1.41	0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV at the end of Charging Year T-2 in then current prices	0	0
Notional Debt to RCV Ratio	%	As defined in Project Licence Appendix 1, 1.42	62.5%	62.5%
Notional Net Debt in Charging Year Yt-2	£, current prices (March of Charging Year T-2)	RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9	0	0

Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>Net Debt at the end of Charging Year T-3 as defined in Project Licence Appendix 1, 1.41</i>	0	0
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV at the end of Charging Year T-3 in then current prices</i>	0	0
Notional Debt to RCV Ratio	%	<i>As defined in Project Licence Appendix 1, 1.42</i>	62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9</i>	0	0
Applicable Change in Revenue RPI for Charging Year Yt			1.01	1.01
Applicable Change in Revenue RPI for Charging Year Yt-2			0.96	0.98
A.1.4. Tax	£	<i>In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax See Project Licence Appendix 1, Part A 1.4</i>	0	0
A.7. Under/Over Recovered Revenue Adjustment	£	<i>The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. Not applicable for 2015 and 2016 Revenue Statements as adjustment applies in respect of Charging Year T-2, and 2015 is the first year the Allowed Revenue calculation has been made. See Project Licence, Appendix 1, Part A.7</i>	0	0
A.8. Reconciliation adjustment	£	<i>Not applicable for 2015 Revenue Statement as reconciliation adjustment applies in respect of Charging Year T-1 and 2015 is the first year the Allowed Revenue calculation has been made. See Project Licence, Appendix 1, Part A 8</i>	0	0
A.11. Additional Return on Capital Building Block	£	<i>Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11</i>		
A.11. Additional Liquidity Building Block	£	<i>Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11</i>		
A.1.6.4. Net Present Value Adjustment	£	<i>Value adjustment using the BWACC to take account of the fact that Allowed Revenue for the First Charging Year (2015/16) was calculated and billed one year late.</i>		8,085,476
PD		<i>Calculation of the proportion of a year between Licence award and the end of the First Charging Year</i>		0.60
End of first charging year Licence Award				31/03/2016 24/08/2015

Calculation 2018

Building Block

	Unit	Notes/ description	2013/14	2014/15	First Charging Year	Second Charging Year	Third Charging Year	Fourth Charging Year	Fifth Charging Year
					2015/16	2016/17	2017/18	2018/19	2019/20
Year starts					01/04/2015	01/04/2016	01/04/2017	01/04/2018	01/04/2019
Year ends					31/03/2016	31/03/2017	31/03/2018	31/03/2019	31/03/2020
Year t-2					2013/14	2014/15	2015/16	2016/17	2017/18
Year t-1					2014/15	2015/16	2016/17	2017/18	2018/19
Year t					2015/16	2016/17	2017/18	2018/19	2019/20
Year t+1					2016/17	2017/18	2018/19	2019/20	2020/21
Year t+2					2017/18	2018/19	2019/20	2020/21	2021/22

1.1 2014/15 RPI Adjustment Factor

A factor calculated for each Charging Year to express costs associated with that year in a 2014/15 price base. See Project Licence, Appendix 1, 1.1

(a) for the purposes of calculating Forecast Allowable Project Spend for Charging Year Yt+1, estimated Allowable Project Spend for the said Charging Year shall be deflated from a price base in Charging Year Yt+1 to the Base RPI Index year ([2014/15]), using an adjustment factor derived from multiplying the factors set out in (i), (ii), (iii) and (iv) below;

Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 commences	%	<i>Forecast RPI - see input sheet for description of source</i>						3.0%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt+1 ends	%	<i>Forecast RPI - see input sheet for description of source</i>						3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt commences	%	<i>Forecast RPI - see input sheet for description of source</i>						3.1%
Forecast RPI Adjustment Factor for the calendar year in which Charging Year Yt ends	%	<i>Forecast RPI - see input sheet for description of source</i>						3.0%

Percentage movement in the RPI (All Items) index as published by Office for National Statistics for the period April to September in the calendar year in which Charging Year Yt-1 commenced

% *Calculated with reference to the index values for March and September to capture April to September inflation (see detailed modelling assumptions in "Statement of calculation 2018")*

2.1%

A.1. Allowed Revenue	£	<i>Total Allowed Revenue calculated as the total of the building blocks below, in accordance with Project Licence, Appendix 1, 1.4. See Statement of calculation 2018 for further detail.</i>	63,431,062
A.3. Return on Capital	£	<i>The Return on Capital building block allows the IP to earn a return on capital in relation to the forecast average RCV in the Charging Year in question. See Project Licence, Appendix 1, Part A 3</i>	49,490,903
Ofwat Stated RCV for Yt-2	£, 2014/15 prices	<i>RCV at the end of Charging Year T-2 as published by Ofwat by 1 September following the end of the Charging Year</i>	962,316,426
OPRCV Yt-1	£, 2014/15 prices	<i>Opening RCV for Charging Year T-1.</i>	962,316,426
2014/15 RPI Adjustment Factor Yt-1		<i>Scalar to adjust forecast costs for Charging Year T-1 to 2014/15 price base</i>	1.11
Annual Actual Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend (verified by the ITA) incurred in Charging Year T-1</i>	123,719,026
Estimated Allowable Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend (not verified by the ITA) incurred in Charging Year T-1</i>	91,181,804
Forecast Allowable Project Spend Yt-1	£, 2014/15 prices	<i>Allowable Project Spend forecast to be incurred in Charging Year T-1</i>	330,679,118
OPRCV Yt	£, 2014/15 prices	<i>Opening RCV for Charging Year T - the sum of opening RCV for Charging year T-1 and all Allowable Project Spend in that year</i>	1,507,896,373
2014/15 RPI Adjustment Factor Yt		<i>Scalar to adjust forecast costs for Charging Year T to 2014/15 price base</i>	1.14
Annual Actual Project Spend Yt	£, 2014/15 prices	<i>Allowable Project Spend (verified by the ITA) incurred in Charging Year T</i>	0

Estimated Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend (not verified by the ITA) incurred in Charging Year T	0
Forecast Allowable Project Spend Yt	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T	559,169,022
CPRCV Yt	£, 2014/15 prices	Closing RCV for Charging Year T - the sum of opening RCV for Charging Year T and all Allowable Project Spend in that year	2,067,065,395
YARCV Yt	£, 2014/15 prices	Year average RCV for Charging Year T	1,787,480,884
A.4. Liquidity	£	The Liquidity building block allows the IP a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question. See Project Licence, Appendix 1, Part A 4	13,996,331
OPRCV Yt+1	£, 2014/15 prices	Opening RCV for Charging Year T+1	2,067,065,395
2014/15 RPI Adjustment Factor Yt+1		Scalar to adjust forecast costs for Charging Year T+1 to 2014/15 price base	1.18
Forecast Allowable Project Spend for year t+1	£, 2014/15 prices	Allowable Project Spend forecast to be incurred in Charging Year T+1	451,852,101
CPRCV Yt+1	£, 2014/15 prices	Closing RCV for Charging Year T+1	2,518,917,497
FYARCV Yt+1	£, 2014/15 prices	Average RCV for Charging Year T+1	2,292,991,446
A.5. Opex		In line with the Project Licence, the Opex building block is zero as all costs are accounted for as capital expenditure. See Project Licence, Appendix 1, Part A 5	0

A.6. Financing Cost Adjustment building block

The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, by comparing a measure of financing costs at an annual reference point to a base reference point of March 2015. See Project Licence, Appendix 1, Part A 6

Financing Cost Adjustment Yt

			0	461,614	-1,016,891
	0	0	0	461,614	-1,478,505

Financing Cost Adjustment Index Yield

% See Project Licence Appendix 1, Part A 6.3

1.30% 1.43% 0.35% 0.01%

Base Reference Point (BRP)

% The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015

	1.30%	1.30%	1.30%	1.30%	1.30%
	1.30%	1.30%	1.43%	0.35%	0.01%
	0.0%	0.0%	-0.1%	0.9%	1.3%
	0.0%	0.0%	0.0%	0.22%	0.54%
	0.0%	0.0%	0.0%	-0.2%	-0.5%

Annual Reference Point (ARP)

% The historic 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year Yt-2

BRP-ABP

% Difference between BRP and ARP

Market Cost of Debt Adjustment Factor (absolute)

% See Project Licence Appendix 1 Part A 6.7

Market Cost of Debt Adjustment Factor (corrected sign)

% See Project Licence Appendix 1 Part A 6.7

Net Debt in Charging Year Yt-2

£, current prices (March of Charging Year T-2)

Net Debt at the end of Charging Year T-2 as defined in Project Licence Appendix 1, 1.41

Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-2

£, current prices (March of Charging Year T-2)

RCV at the end of Charging Year T-2 in then current prices

Notional Debt to RCV Ratio

% As defined in Project Licence Appendix 1, 1.42

Notional Net Debt in Charging Year Yt-2

£, current prices (March of

RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9

	0	0	-130,376,913	-315,869,558	-72,091,186
	0	0	151,310,515	502,087,458	1,043,425,953
	62.5%	62.5%	62.5%	62.5%	62.5%
	0	0	94,569,072	313,804,661	652,141,221

	Charging Year T-2)						
Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>Net Debt at the end of Charging Year T-3 as defined in Project Licence Appendix 1, 1.41</i>	0	0	0	-130,376,913	-315,869,558
Water Services Regulation Authority Adjusted RCV (Current Prices) in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV at the end of Charging Year T-3 in then current prices</i>	0	0	0	151,310,515	502,087,458
Notional Debt to RCV Ratio	%	<i>As defined in Project Licence Appendix 1, 1.42</i>	62.5%	62.5%	62.5%	62.5%	62.5%
Notional Net Debt in Charging Year Yt-3	£, current prices (March of Charging Year T-3)	<i>RCV multiplied by Notional Debt to RCV ratio. See Project Licence Appendix 1 Part A 6.9</i>	0	0	0	94,569,072	313,804,661
Applicable Change in Revenue RPI for Charging Year Yt			1.01	1.01	1.03	1.07	1.11
Applicable Change in Revenue RPI for Charging Year Yt-2			0.96	0.98	1.01	1.01	1.03

A.1.4. Tax	£	<i>In line with the Project Licence, zero as the IP is not required to pay corporation tax or any other income-based tax See Project Licence Appendix 1, Part A 1.4</i>					0
A.7. Under/Over Recovered Revenue Adjustment	£	<i>The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. See Project Licence, Appendix 1, Part A.7</i>					3,618,608
Allowed Revenue		<i>Allowed Revenue as submitted in 2016 updated revised Revenue Statement</i>	33,603,285	28,559,132			
Amount recovered in respect of Allowed Revenue (to end of September 2018)	£	<i>Amount collected by Thames Water and received by Tideway in respect of 2016/17 and</i>	32,230,705	24,198,552			

Amount recovered in respect of Allowed Revenue (to end of September 2017)	£	2017/18 Allowed Revenue, prior to the end of September 2018. Amount collected by Thames Water and received by Tideway in respect of 2016/17 Allowed Revenue, prior to the end of September 2017.	31,009,138			
Applicable Change in Revenue RPI		RPI in November of previous Charging Year relative to 2014/15 base year	1.01	1.03	1.07	1.11
Years of NPV adjustment		Represents the number of years of NPV adjustment required - two years for a Charging Year being reconciled for the first time, and one year to reconcile further amounts received in respect of Charging Years already reconciled. See "Statement of Calculation 2018"	1	2		
Amounts in respect of prior Charging Years not yet reconciled (unadjusted)		Further amounts received in respect of Charging Years that have already been reconciled.	1,221,567			
Reconciliation amounts - Charging Year T-2 (unadjusted)		Difference between Allowed Revenue for a Charging Year and the amount collected by Thames Water and received by Tideway in respect of that Allowed Revenue.		4,360,580		
Reconciliation amounts (NPV-adjusted)		Reconciliation amount as calculated above, NPV-adjusted for the delay between the original Charging Year and the year of reconciliation using the BWACC and Applicable Change in Revenue RPI.	-1,292,019	4,910,627		
A.8. Reconciliation adjustment	£	Reconciliation for updated expenditure and inflation data to reflect realised actuals and updated forecasts. See Project Licence, Appendix 1, Part A 8				-2,657,889

Reconcile this year?	n/a	Revenue for a given Charging Year is subject to building block reconciliation adjustment where estimated or forecast expenditure or inflation inputs were used the last time that year's revenue was calculated. Defined as follows: 1 = yes, 0= no	1	1	1	0
Time since original calculation	years	Represents the number of years since revenue was first calculated to feed into the NPV adjustment of the reconciliation adjustment.	3	2	1	0
Allowed Revenue (as at October 2018)	£	Allowed Revenue recalculated using updated expenditure and inflation data. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation. See BBRA Calculation 2015, BBRA Calculation 2016 and BBRA Calculation 2017.	8,085,476	18,208,619	31,902,004	48,422,229
Allowed Revenue (as at October 2017)	£	Allowed Revenue as submitted in 2017 updated revised Revenue Statement. Excludes the under/over recovered revenue adjustment and the reconciliation adjustment building blocks, as these building blocks are not subject to reconciliation.	18,551,997	32,865,395	49,526,476	
Applicable Change in Revenue RPI (year in which original calculation was made)			1.01	1.03	1.07	
Applicable Change in Revenue RPI (current year)						1.11
Reconciliation amounts (unadjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, prior to NPV adjustment.	-343,377	-963,390	-1,104,247	
Reconciliation amounts (NPV-adjusted)	£	Adjustment calculated as difference between updated calculation and previous year's calculation, post NPV-adjustment using BWACC and Applicable Change in Revenue RPI.	-405,043	-1,084,913	-1,167,933	

A.11. Additional Return on Capital Building Block

£

Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

A.11. Additional Liquidity Building Block

£

Not applicable. To be added to calculation if building block becomes relevant (i.e. if Tideway makes an IAR Overrun Application to increase Allowable Project Spend above the Threshold Outturn). See Project Licence, Appendix 1, Part A 11

Updated revised Revenue Statement - 2019/20

Submitted to Ofwat on 31 October 2018

<i>£, nominal</i>	Year preceding Prior Charging Year 2016/17	Prior Charging Year 2017/18	Current Charging Year 2018/19	Forthcoming Charging Year 2019/20
Allowed Revenue	33,603,285	28,559,132	49,235,940	63,431,062
Amounts received from TWUL	26,747,386	26,791,391		

Statement of calculation

Introduction

The following section sets out how Tideway's Allowed Revenue calculation has been made for the charging year 2019/20. It builds on Tideway's 2015, 2016 and 2017 Revenue Statements.

The Licence has been written to provide the basis of a revenue submission in a typical year. A number of detailed modelling assumptions have been made in interpreting Appendix 1 of the Project Licence.

The 2015 submission was atypical as it covered two years. As such, a number of assumptions were required to ensure the calculation was in line with the spirit and intent of the Licence, some of which continued to apply in both the 2016 and 2017 submission.

For the 2018 Revenue Statement, a clarifying assumptions has been made in relation to the under/over recovered revenue adjustment building block for the 2019/20 Charging Year.

This model, including these assumptions, as set out in the table below, have been sent to Ofwat. In an email dated 22/10/18, Ofwat noted no issues.

Sheet	Issue	Resolution
Calculation 2018	Appendix 1, Part A 8 of Tideway's licence requires a reconciliation adjustment of a number of building blocks for updated values. The licence requires that the adjustment is calculated on a net present value neutral basis using the BWACC, but it does not specify the adjustment formulaically or specify the means of adjusting for inflation.	A separate one-year net present value adjustment is applied to the further amounts to account for the one-year overlap in the collection of the original amounts and their rebilling as part of the Fourth Charging Year revenue adjustment. Apply a net present value adjustment in nominal terms by using $(1+BWACC)$ as the real discount factor and adjusting for inflation using RPI. For 2019/20 Allowed Revenue, this involves multiplying the unadjusted reconciliation amount by $(1+BWACC)^2$ and the ratio between the Applicable Change in Revenue RPI of the two Charging years (to account for the two year delay in revenue receipts). For 2019/20, the reconciliation amount is calculated as the difference between 2017/18 Allowed Revenue and the amount recovered in respect of 2017/18 Allowed Revenue.
Calculation 2018	Appendix 1, Part A 7 of Tideway's licence requires that the under/over recovered revenue adjustment is calculated on a net present value neutral basis using the BWACC, but it does not specify the adjustment formulaically or specify the means of adjusting for inflation.	Apply a net present value adjustment in nominal terms by using $(1+BWACC)$ as the real discount factor and adjusting for inflation using RPI. For 2018/19 Allowed Revenue, this involves multiplying the unadjusted reconciliation amount by $(1+BWACC)^2$ and the ratio between the Applicable Change in Revenue RPI of the two Charging years (to account for the two year delay in revenue receipts). For 2018/19, the reconciliation amount is calculated as the difference between 2016/17 Allowed Revenue and the amount recovered in respect of 2016/17 Allowed Revenue.
Revenue Statement 2018	How to present First and Second Charging Year Allowed Revenue on the Revenue Statement.	Both First and Second Year Allowed Revenue are added and shown as a single figure for the "Year proceeding Prior Charging Year" on the Revenue Statement. Both years of Allowed Revenue were billed by Thames Water in 2016/17, and need to be treated as a single year of Allowed Revenue for the purposes

of revenue reconciliation in 2018/19 and overpayment provisions in the licence and Revenue Agreement.

BBRA Inputs 2015, BBRA Inputs 2016, Inputs 2017 BBRA Calculation 2015, BBRA Calculation 2016, BBRA Calculation 2017

The 2014/15 RPI Adjustment Factor refers to "the percentage movement in the RPI (All Items) index as published by ONS for the period April to September in the calendar year..." However, if the index values for April and September are taken, this only picks up 5 months of inflation. Together with the other elements of the formula, this results in an underestimate of inflation for the Charging Year.

Annual Actual Project Spend for the current Charging Year (Yt-1) feeds into the calculation of RCV, which is required for the calculation of the Return on Capital and Liquidity building blocks. The licence specifies that Annual Actual Project Spend should be deflated by the Applicable Change in Cost RPI for a Charging Year, rather than the 2014/15 RPI Adjustment Factor. However, the Applicable Change in Cost RPI can only be calculated following the publication of RPI for each month of the relevant Charging Year. This information is not available for the current Charging Year at the time the Revenue Statement is prepared.

BBRA Calculation 2015, BBRA Calculation 2016

In order to reconcile Allowed Revenue calculated in prior years for updated inflation, it is not appropriate to use the 2014/15 RPI Adjustment Factor defined in Tideway's licence as more up to date information is available (i.e. a further year of actual inflation data which can be used to replace the forecast).

Calculation 2018

The under/over recovered revenue adjustment is calculated with reference to Allowed Revenue for Charging Year t-2, as set out in Appendix 1, Part A 7 of Tideway's licence. If Allowed Revenue for Charging Year t-2 is interpreted as only 2016/17 Allowed Revenue, 2015/16 Allowed Revenue would be excluded from the reconciliation.

Calculation 2018

One of the terms in the formula for the under/over recovered revenue adjustment (as set out in Appendix 1, Part A 7 of Tideway's licence) is "the amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of Charging Year t-2". However, the licence does not specify the time period to which this element of the calculation should relate.

BBRA Calculation 2017, Calculation 2018

Additional Return on Capital and Additional Liquidity Building Blocks may never become relevant (i.e. these building blocks may only become relevant if Tideway applies for an Increase in Allowed Revenue (IAR).

BBRA Calculation 2015, BBRA Calculation 2016

Reconciliation Adjustment (A 8) states that Financing Cost Adjustment should be subject to reconciliation, but none of the elements of this calculation are forecast.

Interpret the movement for the period April to September as the movement between the March and September index values, which ensures April inflation is also picked up.

Use the 2014/15 RPI Adjustment Factor to deflate the Annual Actual Project Spend in the current Charging Year. This will be trued up in next year's Revenue Statement as part of the building block reconciliation adjustment.

Use approach consistent with definition of 2014/15 RPI Adjustment Factor but with actual inflation used up to September of Yt. This is equivalent to applying the 2014/15 RPI Adjustment Factor values as calculated for the Fourth Charging Year Allowed Revenue calculation, and ensures the latest actual RPI data is taken into account.

As per the second assumption in this table, treat Allowed Revenue for the First and Second Charging Years as a single year of Allowed Revenue for the purposes of revenue reconciliation and overpayment provisions in the licence and Revenue Agreement.

Interpret "the amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of Charging Year t-2" as the amount that has been paid by Thames Water and Tideway has received prior to the end of September of Charging Year t-1.

Exclude calculations for Additional Return on Capital and Additional Liquidity until there is a non-negligible probability that these will be required.

Leave a placeholder for reconciliation of the Financing Cost Adjustment should this, for any reason, become relevant in future, but exclude from calculation at present.

Key to Charging Years

Year	Charging Year	Full description
2015/16	Y1	First Charging Year

2016/17	Y2	Second Charging Year
2017/18	Y3	Third Charging Year
2018/19	Y4	Fourth Charging Year
2019/20	Y5	Fifth Charging Year
2020/21	Y6	Sixth Charging Year

Summary

The inputs to this calculation, and the sources of these inputs, are set out on the "Inputs 2018", "BBRA Inputs 2017", "BBRA Inputs 2016" and "BBRA Inputs 2015" sheets of this workbook. The "BBRA Inputs 2015" sheet isolates the inputs required to reconcile the Allowed Revenue first calculated in 2015 (i.e. for the First and Second Charging Years), "BBRA Inputs 2016" sheet isolating the inputs required to reconcile the Allowed Revenue first calculated in 2016 (for the Third Charging Year), with "BBRA Inputs 2017" sheet isolating the inputs required to reconcile Allowed Revenue first calculated in 2017 (for the fourth charging year).

All the reconciliations are for updated cost and inflation data and the inputs are consistent with those set out on "Inputs 2018".

	Return on capital +	Liquidity +	Operating expenditure	+	Financing cost adjustment +	Tax	+/- Revenue adjustment	+/- Building block for reconciliation adjustment	+ Additional return on capital	+ Additional liquidity
Tideway Allowed Revenue (t)										
=										
Tideway Allowed Revenue (Fifth Charging Year)	=	49.5 +	14 +	0	+ -1	+ 0	+ 3.6	-2.7	+ 0	+ 0
	=	63.4	(£m)							

The calculation of each of these elements is described below.

Inputs

The inputs for the Allowed Revenue calculation are set out in "Inputs 2018", "BBRA Inputs 2017", "BBRA Inputs 2016" and "BBRA Inputs 2015", along with source information and accompanying notes.

In line with Appendix 1 A8 of Tideway's licence, the Expenditure Forecast is that most recently verified by the Independent Technical Assessor (verified 19/10/2018).

It represents the company's latest forecast of cash expenditure over 2018/19, 2019/20 and 2020/21.

Return on Capital

The Return on Capital building block allows Tideway to earn a return on capital in relation to the forecast average RCV in the Charging Year in question.

Average RCV is calculated using annual actual, estimated and forecast allowable project spend, as shown in the table below.

£m, 2014/15 prices	Y1	Y2	Y3	Y4	Y5	Y6
Opening RCV	0.0	148.7	478.5	962.3	1,507.9	2,067.1
Allowable Project Spend	148.7	329.8	483.8	545.6	559.2	451.9
Closing RCV	148.7	478.5	962.3	1,507.9	2,067.1	2,518.9
Average RCV	74.4	313.6	720.4	1,235.1	1,787.5	2,293.0

For the Fifth Charging Year, this building block is calculated as follows:

$$\begin{aligned}
 &\text{Return on Capital} = \text{Average RCV in Y5} * \text{Bid WACC} * \text{Applicable Change in Revenue RPI for the Fifth Charging Year} \\
 &= 1,787.5 * 2.497\% * \frac{284.6}{256.7} \\
 &= . \quad (\text{£m})
 \end{aligned}$$

Liquidity

The Liquidity building block allows Tideway a liquidity allowance (return on capital) in relation to the incremental average RCV in the year following the Charging Year in question.

For the Fifth Charging Year, this building block is calculated as follows:

$$\begin{aligned}
 &\text{Liquidity} = (\text{Forecast average RCV in year 6} - \text{Average RCV in year 5}) * \text{Bid WACC} * \text{Applicable Change in Revenue RPI for the Fifth Charging Year} \\
 &= 505.5 * 2.497\% * \frac{284.6}{256.7} \\
 &= 14.0 \quad (\text{£m})
 \end{aligned}$$

Operating Expenditure (opex)

In line with Tideway's licence, the Opex building block is currently zero as all costs are accounted for as capital expenditure.

Financing Cost Adjustment

The Financing Cost Adjustment building block is intended to protect against movements in the market cost of debt, recognising that Tideway's Bid WACC will apply for a much longer period than the standard five year control period for a WaSC or WoC.

The Financing Cost Adjustment for a given year is calculated as follows:

$$\text{Financing Cost Adjustment (t)} = \frac{(\text{Net Debt (t-2)} - \text{Net Debt (t-3)}) * \text{Market Cost of Debt Adjustment Factor (t)} * (1 + \text{BWACC})^2 * \text{Applicable Change in Revenue RPI (t)}}{\text{Applicable Change in Revenue RPI (t-2)}}$$

where Market Cost of Debt Adjustment Factor (t) =

- i) if the difference between the BRP and the ARP on any ARP Calculation Date is +/- 50 bps, the market cost of debt adjustment will be 0
- ii) if the difference between the BRP and the ARP is between (+/-) 51 bps and 100 bps, the market cost of debt adjustment factor will be equal to 50% of the amount by which such difference exceeds 50bps
- iii) if the difference between the BRP and the ARP is greater than +/- 100 bps, the market cost of debt adjustment factor will be equal to the amount by which such difference exceeds 75 bps

BRP = the 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March 2015
 ARP = the 12 months' trailing average of the Financing Cost Adjustment Index Yield as at 31 March of Charging Year t-2

where the Financing Cost Adjustment Index Yield =

$$\frac{(1 + \frac{\text{iBoxx BBB UK non-financials with 10+ year maturity}}{1 + \text{spot implied inflation rates for 10 year}})}{1 + \text{spot implied inflation rates for 10 year}}$$

maturity published by the Bank of England)

Note that where the ratio between Net Debt and Ofwat-stated RCV (current prices) is higher than the notional debt to RCV ratio, Net Debt will be deemed to equal the notional debt to RCV ratio multiplied by the Ofwat-stated RCV in current prices.

The Financing Cost Adjustment Building Block for each Charging Year is the sum of the Financing Cost Adjustment for that Charging Year and all previous Charging Years, to reflect the build-up of the market cost of debt protection over time.

There was no Financing Cost Adjustment in respect of the Allowed Revenue for the First or Second Charging Years, as in both cases, Tideway did not exist in Charging Year t-2 and t-3, and so did not hold any Net Debt at this time.

The Financing Cost Adjustment building block was zero in the Third Charging Year as the difference between the BRP and ARP was less than 50 bps, and therefore the Market Cost of Debt Adjustment Factor was zero.

In October 2017, the Bank of England published revised UK real yield estimates for 2015 and 2016, which affect the spot implied inflation rates for 10 year maturity used to calculate the Financing Cost Adjustment Index Yield. The revisions reflect a change in methodology related to the types of inflation-linked government bonds used to produce the data.

These revisions affect the base reference point (BRP) and annual reference point (ARP) for 2016/17, which have been updated in the Revenue Statement and are set out below for completeness. As described above, there was no Financing Cost Adjustment in the First, Second or Third Charging Years, and so no adjustment to prior years' Allowed Revenue is required.

Charging Year	2015/16		2016/17	
	Original	Revised	Original	Revised
Base reference point	1.299 %	1.298 %	-	-
Annual reference point	-	-	1.464 %	1.430%

For the Fifth Charging Year, this building block is calculated as follows:

$$\text{Financing Cost Adjustment (year 5)} = \frac{(\text{Net Debt (year 3)} - \text{Net Debt (year 2)}) * \text{Market Cost of Debt Adjustment Factor (year 5)} * (1 + \text{BWACC})^2 * \text{Applicable Change in Revenue RPI (year 5)}}{\text{Applicable Change in Revenue RPI (year 3)}}$$

Applicable Change in Revenue RPI (year 3)

$$= \frac{(-315.9) * -0.54\% * (1 + 0.0249)^2 * \frac{1.11}{1.03}}{1.03}$$

$$= -1.5 \text{ (£m)}$$

For the Fourth Charging Year, this building block was calculated in the 2017 Revenue Statement as follows:

Financing Cost Adjustment (year 4) = (Net Debt (year 2) - Net Debt (year 1)) * Market Cost of Debt Adjustment Factor (year 4) * (1 + BWACC)^2 * Applicable Change in Revenue RPI (year 4)

Applicable Change in Revenue RPI (year 2)

$$= \frac{(-315.9) * -0.22\% * (1 + 0.0249)^2 * \frac{1.07}{1.01}}{1.01}$$

$$= 0.5 \text{ (£m)}$$

Where the Market Cost of Debt Adjustment Factor (year 5) results from the difference between the BRP and the ARP:

$$\text{BRP} = 1.30\%$$

$$\text{ARP} = 0.01\%$$

1.29%, a difference of 129 basis points, which falls in the greater than 100 bps band.

This leads to a Market Cost of Debt Adjustment Factor (year 5) of the amount by which this difference exceeds 75bps, or (1.29% - 0.75%) = -0.54%

(The Market Cost of Debt Adjustment Factor shall be expressed as a positive figure where the ARP exceeds the BRP, and as a negative figure where the BRP exceeds the ARP)

$$\begin{aligned}
 &\text{Financing Cost Adjustment building block} = \text{Financing Cost Adjustment(year 1) + Financing Cost Adjustment(year 2) + Financing Cost Adjustment(year 3) + Financing Cost Adjustment(year 4) + Financing Cost Adjustment(year 5)} \\
 &= 0 + 0 + 0 + 0.5 + -1.5 \\
 &= -1.0 \text{ (£m)}
 \end{aligned}$$

Tax

In line with Tideway's licence, the tax building block is zero as Tideway is not currently required to pay corporation tax or any other income-based tax.

Revenue Adjustment

The revenue adjustment building block is to reconcile for under/over recovered Allowed Revenue in previous Charging Years. Appendix 1 A7 of the licence defines it as:

RA Yt = Allowed Revenue for Charging Year t-2 – (the amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of Charging Year t-2 + the amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of any Charging Year falling prior to Charging Year t-2 that has not been included in any previous RA calculation)

In line with the assumptions set out above, there was no revenue adjustment for the Allowed Revenue in the Third Charging Year, as Thames Water only started billing Tideway's revenue in the Second Charging Year (2016/17).

Therefore, this building block applied for the first time in the Fourth Charging Year (2018/19).

The Revenue Adjustment for the Fifth Charging Year will be based on under recovery of revenue for the Third Charging Year. The table below sets out the amount in respect of the IP Charge recovered by Tideway in respect of the Third Charging Year at the time this Revenue Statement is being prepared. This is split between 2017/18 (as reported in our 2017/18 Annual Report) and the period April to September 2018 (consistent with the assumptions set out in the table at the beginning of this statement).

Charging Year	£m Allowed revenue	Payment received from Thames Water in period		Payment received from Thames Water in period	
		2016/17 Full year	2017/18 Apr-Sep	2017/18 Full year	2018/19 Apr-Sep
2015/16	11.2	26.7	5.5		
2016/17	22.4			26.8	-2.6
2017/18	28.6				
2018/19	49.2				

Reconciliation amounts in respect of Third Charging Year (before NPV adjustment)

Allowed Revenue for Third Charging Year - Amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of Third Charging Year (to end of September 2018)

$$= 28.6 \quad 24.2 \quad -$$

	=	4.4 (£m)		
Reconciliation amounts in respect of Second Charging Year not previously included (before NPV adjustment)	=		Amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of the Second Charging Year (to end of September 2018) - Amount in respect of the IP Charge recovered by the Infrastructure Provider in respect of Second Charging Year (to end of September 2017)	
	=	32.2		- 31
	=	1.2 (£m)		
Reconciliation amounts in respect of Second Charging Year not previously included (after NPV adjustment)	=		Reconciliation amounts in respect of Second Charging Year not previously included (before NPV adjustment) * (1 + Bid WACC) * <u>Applicable Change in Revenue RPI (year 5)</u>	Applicable Change in Revenue RPI (year 4)
	=	1.2	* (1 + 0.02497) *	$\frac{1.11}{1.07}$
	=	-1.3 (£m)		
Reconciliation amounts in respect of Third Charging Year (after NPV adjustment)	=		Reconciliation amounts in respect of Third Charging Year * ((1+BWACC)^2) * <u>Applicable Change in Revenue RPI (year 5)</u>	Applicable Change in Revenue RPI (year 3)
	=	4.4	* ((1 + 0.02497)^2) *	$\frac{1.11}{1.03}$
	=	4.9 (£m)		
<hr/>				
Revenue Adjustment (Fifth Charging Year) (after NPV adjustment)	=		Reconciliation amounts in respect of Second Charging Year not previously included (after NPV adjustment) + Reconciliation amounts in respect of Third Charging Year (after NPV adjustment)	

$$= -1.3 \quad + 4.9$$

$$= 3.6 \text{ (£m)}$$

Building Block Reconciliation Adjustment (BBRA)

A reconciliation adjustment applies for the Return on Capital, Liquidity, Opex, Financing Cost Adjustment, Tax, Additional Return on Capital and Additional Liquidity building blocks.

The reconciliation is calculated on a net present value neutral basis, using the Bid WACC as the discount factor. It reconciles for actual values realised since the previous calculation of the Allowed Revenue for a particular year, and updated forecasts. In practice, this means reconciling for updated expenditure and inflation.

This building block was applied for the first time in the calculation of 2017/18 Allowed Revenue, and it reconciled the 2015/16 and 2016/17 Allowed Revenue, both of which were calculated in the 2015 Revenue Statement.

In the 2018 Revenue Statement, the building block includes a further reconciliation of 2016/17 and 2017/18 Allowed Revenue, and reconciles 2018/19 Allowed Revenue for the first time. The 2016/17 Allowed Revenue is being reconciled for the final time in this 2018 Revenue Statement. This is because actual values have now been realised for all inputs to this calculation, with no forecasts that would require further reconciliation. The 2015/16 Allowed Revenue has been fully reconciled.

The Building Block Reconciliation Adjustment uses the company's latest forecast of expenditure as described in the "Inputs" section above. The differences between 2016/17 actual expenditure and the inputs used for the 2016 Revenue Statement are due to delayed construction expenditure and the contingency provision not being incurred.

	Allowed Revenue			
	2015/ 16	2016/17	2017/ 18	2018/ 19
Allowed Revenue - as calculated in 2015 Revenue Statement	11.16	22.4390		
Allowed Revenue - as calculated/recalculated in 2016 Revenue Statement	8.669	19.7636	33.97	42
Allowed Revenue - as recalculated for 2017 Revenue Statement	8.085	18.5520	32.86	49.526
Allowed Revenue - as recalculated for 2018 Revenue Statement	8.085	18.2086	31.90	48.422

The table above shows the Allowed Revenue for each year as calculated/recalculated in each Revenue Statement

The Allowed Revenue figures set out above exclude the building block reconciliation adjustment (BBRA) and revenue adjustment (RA) building blocks, which are not subject to reconciliation (and which were zero for 2015/16 and 2016/17 Allowed Revenue).

The building block reconciliation is made on a net present value neutral basis using the Bid WACC as a discount factor and adjusting for inflation using RPI, which takes into account the number of years since the Allowed Revenue for a given year was first calculated. This gives the following calculation:

Building block reconciliation adjustment =	$\frac{(2016/17 \text{ Allowed Revenue [2018 calculation]} - 2016/17 \text{ Allowed Revenue [2017 calculation]}) * ((1 + \text{Bid WACC})^3) * \text{Applicable Change in Revenue RPI (year 5)}}{+}$	$\frac{(2017/18 \text{ Allowed Revenue [2018 calculation]} - 2017/18 \text{ Allowed Revenue [2017 calculation]}) * ((1 + \text{Bid WACC})^2) * \text{Applicable Change in Revenue RPI (year 5)}}{+}$	$\frac{(2018/19 \text{ Allowed Revenue [2018 calculation]} - 2018/19 \text{ Allowed Revenue [2017 calculation]}) * ((1 + \text{Bid WACC})^1) * \text{Applicable Change in Revenue RPI (year 5)}}{+}$
(Fifth Charging Year)	Applicable Change in	Applicable Change in	Applicable Change in Revenue RPI (year 4)

256.7

256.7

256
.7

10.2814
= 85 (£m)

13.293
= 889 (£m)

14.8209 (£
= 808 m)

Opex

In line with Tideway's licence, the Opex building block is zero as all costs are accounted for as capital expenditure. Therefore, no reconciliation is required.

Financing Cost Adjustment

The Financing Cost Adjustment does not rely on any forecast inputs and therefore a reconciliation for actuals and updated forecasts is not required.

The Financing Cost Adjustment is non-zero in the Fourth Charging Year. Where the Financing Cost Adjustment is non-zero, it is included in both the calculation and recalculation and so nets out to zero and has no impact on the BBRA.

Tax

In line with Tideway's licence, the tax building block is zero as Tideway is not required to pay corporation tax or any other income-based tax.

Additional Return on Capital and Additional Liquidity

These building blocks will only apply if spend exceeds the Threshold Outturn and Tideway has made an IAR Overrun Application.

Therefore this building block is zero for the purposes of this calculation.

Recalculated Allowed Revenue

Tideway Allowed Revenue (t) = Return on capital + Liquidity + Operating expenditure + Financing cost adjustment + Tax + Additional return on capital + Additional liquidity

(excludes the building block reconciliation adjustment and revenue adjustment building blocks, which are not subject to reconciliation)

(when the financing cost adjustment is non-zero, it is included in both the calculation and the recalculation, so has no net impact on the Building Block Reconciliation Adjustment)

The calculation of these building blocks is as described above. This results in the following recalculated Allowed Revenue for 2016/17, 2017/18 and 2018/19:

Tideway Allowed Revenue (Second Charging Year) = 7.9 + 10.3 + 0 + 0 + 0 + 0 + 0 = 18.2 (£m)

Tideway
Allowed
Revenue
(Third
Charging
Year)

=	18.6	+ 13.3 +	0 +	0 +	0 +	0 +	0
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= 31.9 (£m)

Tideway Allowed Revenue
(Fourth Charging Year)

=	33.1	+ 14.8 +	0 +	0.5 +	0 +	0 +	0
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= 48.4 (£m)