

## **Adverse impact on cost base**

### **Introduction**

1. Section 5 of our provisional findings discusses whether the merger may be expected to have an adverse impact on Ofwat's ability to make cost base comparisons of capital maintenance and enhancement expenditure and challenge cost base estimates. This appendix presents the results of some relevant analysis.

### **Loss of a potential benchmark**

2. We examined the correlation between the water service turnover in 2005/06 (from the June returns) of each WaSC and WoC and its engineering judgement grade (EJG) in the cost-base analysis in the 2003/04 price review (PR04). Our analysis assigned engineering judgement grade A1 (the best) a value of 1 and engineering judgement grade C3 (the worst, in practice) a value of 9. Our results are given in Table 1.

TABLE 1 Correlations between companies' 2005/06 water service turnover and EJs for PR04

	Correlation	Estimates
<i>Infrastructure</i>		
Mains laying—grassland 100mm	0.070	22
Mains laying—grassland 150mm	0.208	22
Mains laying—grassland 200mm	0.208	22
Mains laying—grassland 300mm	0.130	22
Mains laying—grassland 450mm	-0.072	20
Mains laying—grassland 600mm	-0.202	17
Mains laying—regional/suburban highway 100mm	-0.081	22
Mains laying—regional/suburban highway 150mm	0.130	22
Mains laying—regional/suburban highway 200mm	0.130	22
Mains laying—regional/suburban highway 300mm	0.130	22
Mains laying—regional/suburban highway 450mm	-0.072	20
Mains laying—regional/suburban highway 600mm	-0.202	17
Mains laying—urban highway 100mm	-0.208	21
Mains laying—urban highway 150mm	-0.058	21
Mains laying—urban highway 200mm	-0.058	21
Mains laying—urban highway 300mm	0.009	21
Mains laying—urban highway 450mm	-0.126	21
Mains laying—urban highway 600mm	-0.302	21
Mains laying by directional drilling—grassland 100mm	-0.591	10
Mains laying by directional drilling—grassland 150mm	-0.306	10
Mains laying by directional drilling—grassland 200mm	-0.279	9
Mains laying by directional drilling—regional/suburban highway 100mm	-0.195	14
Mains laying by directional drilling—regional/suburban highway 150mm	0.020	13
Mains laying by directional drilling—regional/suburban highway 200mm	-0.093	10
Mains laying by directional drilling—urban highway 100mm	0.075	11
Mains laying by directional drilling—urban highway 150mm	0.075	11
Mains laying by directional drilling—urban highway 200mm	-0.040	9
Mains rehabilitation—surface applied internal coating 100mm	-0.188	13
Mains rehabilitation—surface applied internal coating 150mm	-0.188	13
Mains rehabilitation—surface applied internal coating 200mm	-0.154	12
Mains rehabilitation—surface applied internal coating 300mm	-0.007	12
Mains rehabilitation—sliplining 100mm	-0.771	5
Mains rehabilitation—sliplining 150mm	-0.953	5
Mains rehabilitation—sliplining 200mm	-0.953	5
Mains rehabilitation—pipe insertion 100mm	-0.388	14
Mains rehabilitation—pipe insertion 150mm	-0.215	14
Mains rehabilitation—pipe insertion 200mm	-0.189	12
Mains rehabilitation—pipe insertion 300mm	-0.082	7
Mains rehabilitation—pipe insertion 450mm	0.376	6
Mains rehabilitation—pipe insertion 600mm	-1.000	2
Mains rehabilitation—pipe bursting 100mm	-0.261	18
Mains rehabilitation—pipe bursting 150mm	-0.358	16
Mains rehabilitation—pipe bursting 200mm	-0.073	9
Communication pipes—long side New	0.102	21
Communication pipes—long side Renew	0.027	22
Communication pipes—short side New	0.102	21
Communication pipes—short side Renew	0.027	22
Household meters—internal New	-0.059	20
Household meters—internal Renew	-0.031	19
Household meters—external (excluding BB) New	0.053	22
Household meters—external (excluding BB) Renew	0.053	22
Household meters—external (including BB) New	0.053	22
Household meters—external (including BB) Renew	-0.184	21
Average	-0.131	16
<i>Non-infrastructure</i>		
New treatment works type SW2, output 30MI/d	-0.141	7
Replacement filtration system, output 30MI/d	-0.438	11
New abstraction borehole treatment works, output 8MI/d	-0.379	11
Fitting new plumbosolvency control, output 8MI/d	-0.155	13
Alterations to water treatment works, output 30MI/d	-0.259	6
Installation of a nitrate removal plant, output 10MI/d	-0.302	6
Cryptosporidium protection, output 2.5MI/d	-0.051	10
New service reservoir, capacity 4MI	-0.264	11
New service reservoir, capacity 15MI	-0.290	14
Refurbishment of service reservoir, capacity 6MI	-0.160	19
Replacement of variable speed pumps, output 6 to 9MI/d	0.045	14
Replacement of variable speed pump motors, rated 110kW	-0.485	18
Replacement of borehole pumpsets, output 4MI/d	-0.491	19
Replacement of borehole pumpsets, output 10MI/d	-0.436	13
New fixed-speed pumpset, output 10MI/d	-0.576	18
New fixed-speed pumpset, output 30MI/d	-0.421	18
Replacement MCC, 15kW total installed capacity	-0.581	18
Replacement MCC, 90kW total installed capacity	-0.455	20
Average	-0.324	14
Overall average	-0.180	15
Overall average weighted by number of estimates	-0.132	

Source: Ofwat and CC estimates.

### **Reduction in the dispersion of companies' submitted standard cost estimates**

3. We examined the number of estimates submitted for each standard cost and calculated whether the removal of an estimate submitted by SEW or MKW could reduce the number of remaining estimates below 12. The results of our analysis are given in Table 2, which shows that there are six standard costs where the removal of an estimate submitted by MKW or SEW and its replacement with an estimate submitted by the merged company could reduce the total number of estimates to fewer than a dozen. These are:

- mains laying by directional drilling in grassland 100mm;
- mains rehabilitation by surface applied internal coating 200mm and 300mm;
- mains rehabilitation pipe bursting 200mm only;
- new abstraction borehole treatment works with output 8MI/d; and
- fitting new plumbosolvency control with output 8MI/d.

TABLE 2 Standard cost estimates submitted

Standard cost	Estimates submitted		
	Total	By MKW (grade)	By SEW (grade)
<i>Water infrastructure</i>			
Mains laying—grassland 100mm	22	A1	B2
Mains laying—grassland 150mm	22	A1	B2
Mains laying—grassland 200mm	22	A1	B2
Mains laying—grassland 300mm	22	A1	B2
Mains laying—grassland 450mm	20	A1	B2
Mains laying—grassland 600mm	17	C3	B2
Mains laying—regional/suburban highway 100mm	22	A1	B2
Mains laying—regional/suburban highway 150mm	22	A1	B2
Mains laying—regional/suburban highway 200mm	22	A1	B2
Mains laying—regional/suburban highway 300mm	22	A1	B2
Mains laying—regional/suburban highway 450mm	20	A1	B2
Mains laying—regional/suburban highway 600mm	17	C3	B2
Mains laying—urban highway 100mm	21	A1	B2
Mains laying—urban highway 150mm	21	A1	B2
Mains laying—urban highway 200mm	21	A1	B2
Mains laying—urban highway 300mm	21	A1	B2
Mains laying—urban highway 450mm	19	A1	B2
Mains laying—urban highway 600mm	16	C3	B2
Mains laying by directional drilling—grassland 100mm	10	B2	B3
Mains laying by directional drilling—grassland 150mm	10	B2	-
Mains laying by directional drilling—grassland 200mm	9	B2	-
Mains laying by directional drilling—regional/suburban highway 100mm	14	B2	B3
Mains laying by directional drilling—regional/suburban highway 150mm	13	B2	-
Mains laying by directional drilling—regional/suburban highway 200mm	10	B2	-
Mains laying by directional drilling—urban highway 100mm	11	B2	-
Mains laying by directional drilling—urban highway 150mm	11	B2	-
Mains laying by directional drilling—urban highway 200mm	9	B2	-
Mains rehabilitation—surface applied internal coating 100mm	13	A1	B3
Mains rehabilitation—surface applied internal coating 150mm	13	A1	B3
Mains rehabilitation—surface applied internal coating 200mm	12	A1	B3
Mains rehabilitation—surface applied internal coating 300mm	12	A1	B3
Mains rehabilitation—sliplining 100mm	5	-	B3
Mains rehabilitation—sliplining 150mm	5	-	B3
Mains rehabilitation—sliplining 200mm	5	-	B3
Mains rehabilitation—pipe insertion 100mm	14	-	C3
Mains rehabilitation—pipe insertion 150mm	14	-	C3
Mains rehabilitation—pipe insertion 200mm	12	-	C3
Mains rehabilitation—pipe insertion 300mm	7	-	C3
Mains rehabilitation—pipe insertion 450mm	6	-	-
Mains rehabilitation—pipe insertion 600mm	2	-	-
Mains rehabilitation—pipe bursting 100mm	18	A1	B3
Mains rehabilitation—pipe bursting 150mm	16	A1	B3
Mains rehabilitation—pipe bursting 200mm	9	A1	B3
Communication pipes—long side, new	21	A1	A2
Communication pipes—long side, renew	22	A2	A2
Communication pipes—short side, new	21	A1	A2
Communication pipes—short side, renew	22	A2	A2
Household meters—internal, new	20	-	A1
Household meters—internal, renew	19	-	A2
Household meters—external (excluding BB), new	22	A1	A2
Household meters—external (excluding BB), renew	22	A1	A2
Household meters—external (including BB), new	22	A1	A2
Household meters—external (including BB), renew	21	A1	B2
<i>Water non-infrastructure</i>			
New treatment works type SW2, output 30MI/d	7	-	C3
Replacement filtration system, output 30MI/d	11	-	C3
New abstraction borehole treatment works, output 8MI/d	11	B2	C3
Fitting new plumbosolvency control, output 8MI/d	13	B2	A2
Alterations to water treatment works, output 30MI/d	6	-	B3
Installation of a nitrate removal plant, output 10MI/d	6	B2	-
Cryptosporidium protection, output 2.5MI/d	10	C3	-
New service reservoir, capacity 4MI	14	C3	C3
New service reservoir, capacity 15MI	11	-	C3
Refurbishment of service reservoir, capacity 6MI	19	B3	C3
Replacement of variable speed pumps, output 6 to 9MI/d	14	B2	-
Replacement of variable speed pump motors, rated 110kW	18	B2	B3
Replacement of borehole pumpsets, output 4MI/d	19	B2	B3
Replacement of borehole pumpsets, output 10MI/d	18	B2	B3
New fixed-speed pumpset, output 10MI/d	18	B2	C3
New fixed-speed pumpset, output 30MI/d	13	-	C3
Replacement MCC, 15kW total installed capacity	18	B3	C3
Replacement MCC, 90kW total installed capacity	20	B2	C3

Source: Ofwat, CC calculations.