

Unit cost information and assumptions

Notes:

The figures adopted herein have been adopted from the Environment Agency's Flood Risk Management Estimating Guide (2007). Adaptations are noted and justified. Where appropriate costs have been adjusted as per the BCIS General Civil Engineering Cost Index, Updated 16 Nov 2009.

Calculation of Base Index Increase to November 2009

Date	EA update value
Jan-2006	103.8
Oct-2009	125.5
Increase	21.7

Table showing unit cost information:

	EA Value	Project Base Cost Unit	Base Index Increase (Nov 2009)	Reference Unit	Value Used	Notes
New walls	The new wall is taken as a reinforced concrete wall and foundations with no piling. The linear cost for such a wall depends on the height band as follows:					Weston typical 900mm high - at cost of approximately £1000/m
	£1,565 /m for walls less than 1.2m high;	1565.00	1.22	1.20	1909.30	
	£1,751.00 /m for walls between 1.2 and 2.1m high; and	1751.00	1.22	2.10	2136.22	
	£2,286 /m for walls between 2.1 and 5.3m high.	2286.00	1.22	5.30	2788.92	
New embankments	The cost is given per m ³ of fill volume for a range of volumes:					
	£65 /m ³ for fill volumes less than 5,000m ³ ;	65.00	1.22	5000.00	79.30	
	£46 /m ³ for fill volumes between 5,000 and 15,000m ³ ; and	46.00	1.22	15000.00	56.12	
	£24 /m ³ for fill volumes greater than 15,000m ³ .	24.00	1.22		29.28	
	It should be noted that these costs are also applicable for the raising of existing					

	EA Value	Project Base Cost Unit	Base Index Increase (Nov 2009)	Reference Unit	Value Used	Notes
New quayside	New quay walls have been priced based on the cost of sheet piles. The estimating guide provides costs depending on the location of the sheet piling (i.e. in a rural or urban environment). Costs are as follows:					EA unit costs considered to be undercosted and for smaller arrangements. Detailed costing completed previously for similar sized structures.
	£6,459 /m for lengths shorter than 100m in an urban environment;	11700.00	1.00	100.00	11700.00	
	£2,081 /m for lengths greater than 100m in an urban environment; and £1,357 /m for in a rural environment, regardless of the length.	11700.00 11700.00	1.00 1.00	100.00 100.00	11700.00 11700.00	
Wall raising	The costs for wall raising are dependent on the wall height and are as follows:					If raising less than 300mm then wall raising unit costs used, otherwise reverts to rebuild option.
	£771 /m for walls to be topped up, up to 300mm	771.00	1.22	0.30	940.62	
	£1,565 /m for walls less than 1.2m high;	1565.00	1.22	1.20	1909.30	
	£1,751.00 /m for walls between 1.2 and 2.1m high; and £2,286 /m for walls between 2.1 and 5.3m high.	1751.00 2286.00	1.22 1.22	2.10 5.30	2136.22 2788.92	
Revetment	440 <100m ³	440.00	1.22	10.00	536.80	As per EA guidance. Unchanged.
	440 100m ³	440.00	1.22	100.00	536.80	
	320 200m ³	320.00	1.22	200.00	390.40	
	156 1000m ³	156.00	1.22	1000.00	190.32	
	104 2500m ³	104.00	1.22	2500.00	126.88	
	76 5000m ³	76.00	1.22	5000.00	92.72	
	76 50000m ³	76.00	1.22	50000.00	92.72	
76 100000m ³	76.00	1.22	100000.00	92.72		