FCRM Partnership Funding Calculator for Flood and Coastal Erosion Risk Management Grant in Aid (FCRM GiA)

Before

Significant

2

626

Very

908

30

681

Moderate

Version 8 January 2014

Number of households in:

20% most deprived areas 21-40% most deprived areas

60% least deprived areas

Project Name	Leigh Barrier - Improve			
Unique Project Number				
All figures are in £'s Figures in Blue to be entered onto Med	dium Term Plan		Key \z\z	Input cells Calculated cells
SUMMARY: prospect of FCRM GiA fun	nding			
			Scheme Benefit	
Raw Partnership Funding Score		79% (1)	Effective return Effective return on d	
External Contribution or saving required t	o achieve an Adjusted Score of 100%	2,878,453 (2)	Cell (2) shows the minimum amount of o	
Adjusted Partnership Funding Score (PF)		79% (3)	scheme cost that are required to raise the Further increases on this will improve the	is scheme's chances of an FCRM GiA
PV FCERM GiA towards the up-front co	osts of this scheme (PV Cost for Approval)	- (4)	allocation in the desired year. Planned s entered into cells(9,10,12) and cells(14-	
1. Scheme details Risk Management Authority type of asset	un altatala au	EA](5)	(c)	
	maintainer		Yes (6) Is evidence available that a Strategic A	
Duration of Benefits (years)		40 (7)	and that double counting of benefit	s has been avoided ?
PV Whole-Life Benefits:		160,729,868 (8)	All costs and benefits must be on a F	Propert Value (DV) Whole
PV Costs			Life basis over the Duration of Be	
PV Appraisal Costs		735,016 (9)	Contributions are identified these	
PV design & Construction Costs Sub Total - PV Cost for Approval (appraisa	al,design,construction)	9,764,701 (10) 10,499,717 (11)	Present Value ba	asis.
PV Post-Construction Costs		3,287,444 (12)		
PV Whole-Life Costs:		13,787,160 (13)	The total value of any necessary contrib	
PV Contributions secured to date			maintenance (ongoing costs) is funded means.	through revenue FCRM GiA, or by othe
PV Local Levy secured to date		(14)	NOTE: This scheme is to be maintained	by the EA (ref cell 5). Any contribution:
PV Public Contributions secured to date		(15)	needed (ref cell 2) are to help fund both	up-front costs (cell 11) and future
PV Private Contributions secured to date		(16)	ongoing costs (cell 12) and should be en	ntered into cells(14-17).
PV Funding form other Environment Agency PV Total Contributions secured to date	functions/sources secured to date	(17) 0 (18)		
WARNING: Contributions less than minim	um required in cell (2)	<u> </u>		
2. Qualitying benefits under Outcome	Measure 2: households better protected against fl	ood risk		

After

Significant

658

264

22

895

Moderate

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0

-362

Change due to scheme

Significant

-250

-8

214

Moderate

Change in household damages, in: Per year Over lifetime of scheme Qual. benefits (discounted discounted discounte		risk	risk	significant risk	risk Annual damages avoided (£)	risk	significant risk	risk w risk 150	risk 600	significant risk
Number of households in: 20% most deprived areas	20% most deprived areas 21-40% most deprived areas	n:	-£	450 1,800	Annual damages avoided (2)	Over lifeting -£ -£	ne of scheme 18,000 72,000	Q OM2 (20%) OM2 (21-40%)	ual. benefits	•
20% most deprived areas £ - - C - <td>Number of households in: 20% most deprived areas 21-40% most deprived areas</td> <td>rtcome Measure 3: household</td> <td></td> <td>Before</td> <td>Damages pe Annual damag Loss expectec Present value</td> <td>ges avoided d in of Year 1 loss</td> <td>(i.e. first year damages</td> <td>50 £ 1,184 Long-term</td> <td>£ 3,015 Medium-term</td> <td>years</td>	Number of households in: 20% most deprived areas 21-40% most deprived areas	rtcome Measure 3: household		Before	Damages pe Annual damag Loss expectec Present value	ges avoided d in of Year 1 loss	(i.e. first year damages	50 £ 1,184 Long-term	£ 3,015 Medium-term	years
Payments under: Assumed benefits per unit: Qual. benefits (discounted) OM4a Hectares of net water-dependent habitat created £ 15,000 OM4a £ OM4b Hectares of net intertidal habitat created £ 50,000 OM4b £ OM4c Kilometres of protected river improved £ 80,000 OM4c £ OM4c £ 80,000 OM4c £ _ OM4 deprivation: Qual. benefits Payment rate: Payment rate: PCRM GiA contribution: OM2 20% most £ 147,072,648 5.56 p in the £1 £ 8,170,703	20% most deprived areas 21-40% most deprived areas	n:	£	-		£	-	OM3 (20%) OM3 (21-40%)	£	-
OM, deprivation: Qual. benefits: Payment rate: FCRM GiA contribution: OM1 £ 147,072,648 5.56 p in the £1 £ 8,170,703 f. £ 8,170,703 f. £ 4,542 f. £ 4,542 f. £ 12,113 f. £ 12,113 f. £ 12,721,350 f. £ 12,721,350 f. £ £ - - 45.0 f. £ -	Payments under: OM4a OM4b	Hectares of net water-depend Hectares of net intertidal habit	ent habitat create tat created			£	15,000 50,000	OM4a OM4b OM4b	£ £ £	(discounted) - - - -
12 1 mg/ 20 10001	OM, deprivation: OM1 OM2 20% most 21-40% Least 60% OM3 20% most 21-40% Least 60% OM4	Qual. benefits: £ 147,072,648 £ 10,094 £ 40,376 £ 13,606,749 £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - - - £ - - - £ - - - £ - - - £ - - - £ - - - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ - £ -	Payment rate: 5.50 45.0 30.0 20.0 45.0 30.0 100.0	6 p in the £1 0 0 0 0 0 0 0	£ £ £ £ £	8,170,703 4,542 12,113 2,721,350 - - -			actual value	any scheme

As scenario above

Sensitivity 1 - Change in PV Whole Life Cost (25% increase)

Sensitivity 2 - Change in OM2 - 50% of households in Very Significant (Before) risk may already be in Significant Risk band

Sensitivity 3 - Change in OM3 - 50% of households in Medium Term loss (Before) may already be in Long Term loss

Sensitivity 4 - Increase Duration of Benefits by 25%

Sensitivity 5 - Reduce Duration of Benefits by 25%

END OF WORKSHEET

Raw Score	Contribution for 100% Score (£k)
79%	2,878,453
28%	12,325,032
74%	3,639,056
79%	2,878,453
22%	10,773,124
77%	3,146,618

FCRM Partnership Funding Calculator for Flood and Coastal Erosion Risk Management Grant in Aid (FCRM GiA)

Version 8 January 2014

Project	Name	
Unique	Project	Number

Increased storage at Leigh FSA (NMOWL of 28.85m AOD), with Hildenborough embankment (higher cost)

All figures are in £'s		Key Input cells \z\z Calculated cells
Figures in Blue to be entered onto Medium Term Plan		
SUMMARY: prospect of FCRM GiA funding		Scheme Benefit to Cost Ratio: 9.60 to 1
		Effective return to taxpayer: 9.60 to 1
Raw Partnership Funding Score	66% (1)	Effective return on contributions: n/a to 1
External Contribution or saving required to achieve an Adjusted Score of 100%	5,786,561 (2)	Cell (2) shows the minimum amount of contributions and/or reductions in
Adjusted Barthaushin Funding Coars (BE)	66% (3)	scheme cost that are required to raise the Adjusted PF Score to at least 100%.
Adjusted Partnership Funding Score (PF)	66% (3)	Further increases on this will improve this scheme's chances of an FCRM GiA allocation in the desired year. Planned savings and contributions should be
PV FCERM GiA towards the up-front costs of this scheme (PV Cost for Approval)	- (4)	entered into cells(9,10,12) and cells(14-17). See NOTE below.
I. Scheme details		
Risk Management Authority type of asset maintainer	EA (5)	Yes (6)
		Is evidence available that a Strategic Approach has been taken,
Duration of Benefits (years)	40 (7)	and that double counting of benefits has been avoided?
PV Whole-Life Benefits:	164,211,686 (8)	
		All costs and benefits must be on a Present Value (PV) Whole-
PV Costs PV Appraisal Costs	808,563 (9)	Life basis over the Duration of Benefits period. Where Contributions are identified these should also be on a Present
PV design & Construction Costs	12,695,688 (10)	Value basis.
Sub Total - PV Cost for Approval (appraisal,design,construction)	13,504,251 (11)	Value sasio.
PV Post-Construction Costs	3,598,296 (12)	
PV Whole-Life Costs:	17,102,547 (13)	
		The total value of any necessary contributions will depend on whether
WO		maintenance (ongoing costs) is funded through revenue FCRM GiA, or by other
V Contributions secured to date	[40]	means.
V Local Levy secured to date V Public Contributions secured to date	(14)	NOTE: This scheme is to be maintained by the EA (ref cell 5). Any contribution needed (ref cell 2) are to help fund both up-front costs (cell 11) and future
PV Private Contributions secured to date	(16)	ongoing costs (cell 12) and should be entered into cells(14-17).
PV Funding form other Environment Agency functions/sources secured to date	(17)	origoning ocolo (ocii 12) and oriodia be oritored into ociio(14-11).
V Total Contributions secured to date	0 (18)	
/ARNING: Contributions less than minimum required in cell (2)		

2. Qualifying benefits under Outcome Measure 2: households better protected against flood risk

Number of households in: 20% most deprived areas 21-40% most deprived areas 60% least deprived areas

		Before		
	5	2		
	30	2		
	681	908		626
At:	Moderate	Significant	Very	
	risk	risk	significant	

	After	
2	2	-
22	1	-
708	597	263
Moderate	Significant	Very
risk	risk	significant
		باجاد

Char	nge due to sch	neme
-3	0	0
-8	-1	0
27	-311	-363
Moderate	Significant	Very
risk	risk	significant
		risk
150	600	1 250

Annual damages avoided (£), compared with a household at low risk

Change in household damages, in:

Per year

Over lifetime of scheme

Qual. benefits (discounted)

risk

20% most deprived areas	-£
21-40% most deprived areas	-£
60% least deprived areas	-£

-£	18,000
-£	72,000
-£	26,904,000

OM2 (20%)		10,094
OM2 (21-40%)		40,376
OM2 (60%)	£	15,087,207

3. Qualifying benefits under Outcome Measure 3: households better protected against coastal erosion

Number of households in:
20% most deprived areas
21-40% most deprived areas
60% least deprived areas

Before			
Long-term loss	Medium-term loss		

450 1,800 672,600

Damages per household avoided: Annual damages avoided
Loss expected in
Present value of Year 1 loss (i.e. first year damages, discounted based on when loss is expected)

£	6,000	£ 6,000	ı.
	50	20	years
£	1,184	£ 3,015	i
Long-term		Medium-term	1
loss		loss	

Change in household damages	, in:
200/ most deprised areas	

20% most deprived areas				
21-40% most deprived areas				
60% least deprived areas				

	Year 1 loss avoided:
£	-
£	-
£	-

Over lifetime of scheme:				
£	-			
£	-			
£	-			

Qual. benefits (discounted):			
OM3 (20%)	£		
OM3 (21-40%)	£		
OM3 (60%)	£	-	

4. Qualifying benefits under Outcome Measure 4: statutory environmental obligations met

Payments under:	_
OM4a	Hectares of net water-dependent habitat created
OM4b	Hectares of net intertidal habitat created
OM4c	Kilometres of protected river improved

Assumed	benefits per unit:
£	15,000
£	50,000
£	80,000

Qual. benefits (discounted):			
ОМ4а	ω	-	
OM4b	ω	-	
OM4c	£	-	
OM4a OM4b OM4c OM4	£	-	
		<u> </u>	

5. Qualifying benefits arising from the overall scheme, for entry into the Medium-Term Plan

OM, deprivation:		Qual. benefits:		Payment rate:
OM1		£	149,074,010	5.56 p in the £1
OM2	20% most	£	10,094	45.0
	21-40%	£	40,376	30.0
	Least 60%	£	15,087,207	20.0
OM3	20% most	£	-	45.0
	21-40%	£	-	30.0
	Least 60%	£	-	20.0
OM4		£	-	100.0
Total		£	164.211.686	

FCRM GiA contribution:		
£	8,281,889	
£	4,542	
£	12,113	
£	3,017,441	
£	-	
£	-	
£	-	
£	-	
£	11,315,986	

Maximum for Outcomes delivered. The actual value any scheme is elligible for may be less.

Sensitivity Testing. It is important that users of this calculator appreciate the implications on funding from changes to input data which may become necessary as the project develops and better information is available. Five typical tests are provided below. Users should consider how appropriate these are to their project, what other tests may be appropriate and how best to use the information with all those that may be involved in the project.

As scenario above

Sensitivity 1 - Change in PV Whole Life Cost (25% increase)

Sensitivity 2 - Change in OM2 - 50% of households in Very Significant (Before) risk may already be in Significant Risk band

Sensitivity 3 - Change in OM3 - 50% of households in Medium Term loss (Before) may already be in Long Term loss

Sensitivity 4 - Increase Duration of Benefits by 25%

Sensitivity 5 - Reduce Duration of Benefits by 25%

Raw Score	Contribution
	for 100%
	Score
	(£k)
66%	5,786,56
24%	16,285,990
62%	6,547,165
66%	5,786,561
20%	13,762,569
64%	6,083,699

END OF WORKSHEET