

Economic Assessment

Policy development Zone (PDZ)5

Management Area

(MA):

13

Location: Pendennis Point to Rosemullion Head

Policy Units (PU):13.1, 13.2, 13.3, 13.4, 13.5, 13.6

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	1	21.9	10	43.7	14	16.7	82.2
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	1	3.1	3.1
Total Damages							85.4
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	1	8.2	10	7.4	15.6
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							15.6
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and MR in epochs 2&3 at Swanpool & Meanporth	
Notes: minimal cost included for MR at Swanpool and Meanporth	65.5

Notes

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Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	21.9	43.7	19.8	85.4
	Preferred Plan Damages (£k PV)	0.0	8.2	7.4	15.6
	Benefits of preferred plan (£k PV)	21.9	35.4	12.4	69.7
	Costs of implementing plan £k PV	41	18	6	65
Benefit/Cost ratio of preferred plan					1.1

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.33	0.89	0.67

Economic Assessment
Policy development Zone (PDZ)5

Management Area
(MA):

14

Location: Helford

Policy Units (PU):14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 14.8, 14.9

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	38	258.9	50	219.8	78	141.5	620.1
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	2	143.1	1	70.2	1	21.5	234.8
Total Damages							855.0
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	8	51.8	10	44.0	16	28.3	124.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	2	143.1	1	70.2	1	21.5	234.8
Total Damages							358.9
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future at Gweek - cost not included for unconsented development at Gweek	
Notes: Majority of costs relate to Gweek.	425.9

Notes

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Economics Summary		by 2025	by 2055	by 2105	Total £k PV	
Property	Potential NAI Damages (£k PV)					
		402.0	290.0	163.0	855.0	
	Preferred Plan Damages (£k PV)	194.9	114.2	49.8	358.9	
	Benefits of preferred plan (£k PV)	207.1	175.8	113.2	496.1	
	Costs of Implementing plan £k PV	213	107	106	426	
					Benefit/Cost ratio of preferred plan	1.16

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.33	0.89	0.67

Economic Assessment

Policy development Zone (PDZ)6

Management Area

(MA):

15

Location: Lizard East (Nare Point to Lizard Point)

Policy Units (PU):15.1, 15.2, 15.3, 15.4, 15.5, 15.6

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	4	37.1	4	19.5	10	10.4	67.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	1	47.5	17	729.2	27	326.7	1103.4
Total Damages							1170.4
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
HTL in the first epoch.	
Notes:	
	732.1

Notes

High initial costs in HTL for the many small coves, but this is offset by the reduced damages that are subsequently experienced

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	84.6	748.7	337.1	1170.4
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	84.6	748.7	337.1	1170.4
	Costs of implementing plan £k PV	608	84	40	732
		Benefit/Cost ratio of preferred plan			1.60

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
2.00	1.33	1.00

Economic Assessment

Policy development Zone (PDZ)6

Management Area

(MA):

16

Location: Lizard West (Lizard Point to Baulk Head)

Policy Units (PU):16.1, 16.2, 16.3, 16.4, 16.5

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	3	49.3	49.3
Total Damages							49.3
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	1	16.4	16.4
Total Damages							16.4
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Only initial costs of MR for the MR policy at Jangye-ryn	
Notes:	14.2

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	0.0	49.3	49.3
	Preferred Plan Damages (£k PV)	0.0	0.0	16.4	16.4
	Benefits of preferred plan (£k PV)	0.0	0.0	32.9	32.9
	Costs of Implementing plan £k PV	14	0	0	14
		Benefit/Cost ratio of preferred plan			2.32

Notes

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
2.90	1.93	1.45

Economic Assessment

Policy development Zone (PDZ)7

Management Area
(MA):

17

Location: Baulk Head to Trewavas Head

Policy Units (PU):17.1, 17.2, 17.3, 17.4

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	2	266.6	41	2352.8	66	1259.4	3878.8
Total Damages							3878.8
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							

Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future at Porthleven	
Notes:	3352.3

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	266.6	2352.8	1259.4	3878.8
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	266.6	2352.8	1259.4	3878.8
	Costs of implementing plan £k PV	1418	713	1222	3352
		Benefit/Cost ratio of preferred plan			1.16

Notes

High cost of work at Porthleven to maintain defences

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.45	0.96	0.72

Economic Assessment

Policy development Zone (PDZ)7

Management Area

(MA):

18

Location: Trewavas Head to The Greeb

Policy Units (PU):18.1, 18.2, 18.3, 18.4

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	11	610.3	42	829.7	1440.0
Total Damages							1440.0
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	8	457.8	11	207.4	665.2
Total Damages							665.2
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Relatively low costs associated with MR at Praa Sands West	
Notes:	60.7

Notes

Robust B/C ratio as no capital costs allowed for reconstruction of defence to HTL

Economics Summary		by 2025	by 2055	by 2105	Total £k PV	
Property	Potential NAI Damages (£k PV)	0.0	610.3	829.7	1440.0	
	Preferred Plan Damages (£k PV)	0.0	457.8	207.4	665.2	
	Benefits of preferred plan (£k PV)	0.0	152.6	622.3	774.9	
	Costs of Implementing plan £k PV	39	22	0	61	
					Benefit/Cost ratio of preferred plan	12.8

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
16.0	10.6	8.0

Economic Assessment
Policy development Zone (PDZ)8

Management Area
(MA):

19

Location: Marazion to Long Rock

Policy Units (PU):19.1, 19.2, 19.3, 19.4, 19.5, 19.6

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	71	86.0	86.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	1	11.2	194	9804.8	137	2659.7	12475.7
Total Damages							12561.7
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							

Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future at Marazion Town, St Michael's Mount harbour and Marazion west & Marsh	
Notes:	
	3407.0

Notes

Robust B/C ratio due to the removal of erosion risk to large numbers of properties
Rail, road and helicopter infrastructure and disruption not included, which would further increase the B/C ratio

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)				
		11.2	9804.8	2745.6	12561.7
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	11.2	9804.8	2745.6	12561.7
Costs of Implementing plan £k PV	1727	859	821	3407	
				Benefit/Cost ratio of preferred plan	3.69

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
4.61	3.07	2.30

Economic Assessment
 Policy development Zone (PDZ)8
 Location: Long Rock to Penzance

Management Area
 (MA): 20
 Policy Units (PU):20.1, 20.2

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	133	166.2	166.2
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	67	4090.1	89	1459.0	5549.1
Total Damages							5715.2
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	2.0	69.1	69.1
Total Damages							69.1
<i>Information</i>							

Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy

Costs

Preferred Policy		PV value (£k)
Description		
Hold the line of defence and raise defence in the future. MR at Longrock & Eastern Green in epochs 2&3		
Notes: High costs assumed with the MR options		4575.0

Notes

No account or rail or road assets or disruption has been included

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	4090.1	1625.2	5715.2
	Preferred Plan Damages (£k PV)	0.0	0.0	69.1	69.1
	Benefits of preferred plan (£k PV)	0.0	4090.1	1556.1	5646.1
	Costs of Implementing plan Ek PV	1687	1654	1233	4575
		Benefit/Cost ratio of preferred plan			1.23

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.54	1.03	0.77

Economic Assessment

Policy development Zone (PDZ)8

Management Area

(MA):

21

Location: Penzance & Newlyn (Albert Pier to Sandy Cove breakwater)

Policy Units (PU):21.1, 21.2, 21.3, 21.4

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	162	1607.0	179	956.6	246	388.2	2951.8
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	23	1440.7	105	4813.5	274	4915.0	11169.2
Total Damages							14121.1
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							

Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future, except Wherry town where MR in epochs 2&3	
Notes: High costs associated with MR at Wherry town as likely to be complex.	11995.6

Notes

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Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	3047.7	5770.2	5303.3	14121.1
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	3047.7	5770.2	5303.3	14121.1
	Costs of Implementing plan £k PV	6844	3134	2018	11996
		Benefit/Cost ratio of preferred plan			1.18

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.47	0.98	0.74

Economic Assessment

Policy development Zone (PDZ)8

Management Area

(MA):

22

Location: Sandy Cove breakwater to Spaniard Point

Policy Units (PU):22.1, 22.2

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	5	13.4	8	9.3	22.6
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	6	113.9	113.9
Total Damages							136.5
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future	
Notes:	
	3202.8

Notes

V low B/C ratio due to high costs of Mousehole harbour maintenance. Investigation into role of harbour beyond simply flood/coast protection required. A wide range of funding sources may require investigation.

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	13.4	123.1	136.5
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	0.0	13.4	123.1	136.5
	Costs of Implementing plan £k PV	1785	831	587	3203
		Benefit/Cost ratio of preferred plan			0.04

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
0.053	0.036	0.027

Economic Assessment

Policy development Zone (PDZ)9

Management Area

(MA):

23

Location: Spaniard Point to Lands End

Policy Units (PU):23.1, 23.2

DAMAGES

Scenario:

No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	1	0.3	0.3
Total Damages							0.3
<i>Information</i>							

DAMAGES

Scenario:

Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
No works required	
Notes:	
	0.0

Notes

No works required

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	0.0	0.3	0.3
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	0.0	0.0	0.3	0.3
	Costs of implementing plan (£k PV)	0	0	0	0
		Benefit/Cost ratio of preferred plan			N/A

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
N/A	N/A	N/A

Economic Assessment
 Policy development Zone (PDZ)9
 Location: Lands End to St Ives

Management Area
 (MA): 24
 Policy Units (PU):24.1, 24.2, 24.3, 24.4

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	1	21.5	21.5
Total Damages							21.5
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							

Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of the sea walls at Sennen	
Notes: Breakwater maintenance costs not included	
	185.5

Notes

Relatively high costs of maintaining the sea walls at Sennen and the low erosion and flood damage (road and wave action flood risk excluded from losses) means artificially low B/C ratio is shown. Wider economic analysis required to review benefits; wave dominated flood risk, tourism, heritage, parking revenue, lifeboat access, etc.

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	0.0	21.5	21.5
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	0.0	0.0	21.5	21.5
	Costs of Implementing plan £k PV	94	47	44	185
		Benefit/Cost ratio of preferred plan			0.12

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
0.15	0.10	0.07

Economic Assessment

Policy development Zone (PDZ)10

Management Area

(MA):

25

Location: Clodgy Point to Porthminster Point (St Ives)

Policy Units (PU):25.1, 25.2, 25.3, 25.4

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	8	89.0	29	152.0	62	84.0	324.9
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	156	7873.7	180	3367.5	11241.3
Total Damages							11566.2
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future	
Notes:	
	871.4

Notes

Defence and high value assets provide the robust B/C ratio
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Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	89.0	8025.7	3451.5	11566.2
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	89.0	8025.7	3451.5	11566.2
	Costs of Implementing plan £k PV	456	222	194	871
		Benefit/Cost ratio of preferred plan			13.27

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
16.59	11.06	8.30

Economic Assessment

Policy development Zone (PDZ)10

Management Area

(MA):

26

Location: Porthminster Point to Hayle Estuary

Policy Units (PU):26.1, 26.2, 26.3

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	2	157.5	3	64.6	222.1
Total Damages							222.1
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	2	157.5	3	64.6	222.1
Total Damages							222.1
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
No works	
Notes:	0.0

Notes

No works

Economics Summary		by 2025	by 2055	by 2105	Total £k PV	
Property	Potential NAI Damages (£k PV)	0.0	157.5	64.6	222.1	
	Preferred Plan Damages (£k PV)	0.0	157.5	64.6	222.1	
	Benefits of preferred plan (£k PV)	0.0	0.0	0.0	0.0	
	Costs of Implementing plan £k PV	0	0	0	0	
					Benefit/Cost ratio of preferred plan	N/A

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
N/A	N/A	N/A

Economic Assessment
Policy development Zone (PDZ)10

Location: Hayle Estuary

Management Area
(MA):

27
Policy Units (PU):27.1, 27.2, 27.3, 27.4, 27.5

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	295	1918.3	420	1526.0	646	708.3	4152.7
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	9	937.4	4	256.8	5	62.0	1256.2
Total Damages							5408.9
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence and raise defence in the future + MR at certain locations within Hayle estuary	
Notes: High costs throughout the estuary due to large numbers and length of assets	5987.2

Notes

Marginal B/C ratio due to long lengths of frontages that need protection. Future re-development plans may alter the overall economics. Road disruption not included, which will increase B/c ratio
--

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	2855.7	1782.8	770.4	5408.9
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	2855.7	1782.8	770.4	5408.9
	Costs of Implementing plan £k PV	3260	1638	1089	5987
Benefit/Cost ratio of preferred plan					0.90

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
1.13	0.75	0.56

Economic Assessment

Policy development Zone (PDZ)10

Management Area

(MA):

28

Location: Black Cliff to Godrevy Point

Policy Units (PU):28.1, 28.2, 28.3

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	0	0.0	0.0
Total Damages							0.0
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Minor works required to move to MR of the Gwithian frontage	
Notes:	64.7

Notes

Although no benefit, small costs required to move to the more sustainable MR policy

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	0.0	0.0	0.0
	Preferred Plan Damages (£k PV)	0.0	0.0	0.0	0.0
	Benefits of preferred plan (£k PV)	0.0	0.0	0.0	0.0
	Costs of Implementing plan £k PV	35	18	11	65
		Benefit/Cost ratio of preferred plan			N/A

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
N/A	N/A	N/A

Economic Assessment

Policy development Zone (PDZ)11

Management Area

(MA):

29

Location: Godrevy Point to St Agnes Head

Policy Units (PU):29.1, 29.2, 29.3, 29.4, 29.5

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	3	268.1	6	264.9	36	628.0	1161.1
Total Damages							1161.1
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	0	0.0	0	0.0	0.0
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	3	100.8	6	44.8	145.6
Total Damages							145.6
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
Hold the line of defence for first epoch only, then move to MR on beach and HTL/MR at harbour.	
Notes: very high costs associated with the breakwater and harbour maintenance	3875.1

Notes

Below unity B/C ratio is largely due to the high costs of maintaining the breakwater. Likely that alternative funding/justification investigation is required to take account of amenity and heritage/historic status.

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	268.1	264.9	628.0	1161.1
	Preferred Plan Damages (£k PV)	0.0	100.8	44.8	145.6
	Benefits of preferred plan (£k PV)	268.1	164.1	583.3	1015.5
	Costs of Implementing plan £k PV	2705	1170	0	3875
Benefit/Cost ratio of preferred plan					0.26

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
0.33	0.22	0.16

Economic Assessment

Policy development Zone (PDZ)11

Management Area

(MA):

30

Location: St Agnes Head to Pentire Point West

Policy Units (PU):30.1, 30.2, 30.3, 30.4, 30.5, 30.6

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	1	2.8	18	68.3	271	279.5	350.6
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	4	241.5	0	0.0	19	266.4	507.9
Total Damages							858.5
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	1	1.0	18	11.5	12.6
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	5	66.6	66.6
Total Damages							79.2
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy		PV value (£k)
Description		
Works at Trevaunance cove & Perranporth relating to short length of hard defences		
Notes:		183.3

Notes

Although robust B/C ratio, only cost have been allowed for MR as process largely likely to be simply managed. Impact of wave dominated flood events requires further investigation

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	244.3	68.3	545.9	858.5
	Preferred Plan Damages (£k PV)	0.0	1.0	78.1	79.2
	Benefits of preferred plan (£k PV)	244.3	67.3	467.7	779.3
	Costs of Implementing plan £k PV	169	9	6	183
				Benefit/Cost ratio of preferred plan	4.25

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
5.31	3.54	2.66

Economic Assessment

Policy development Zone (PDZ)12

Management Area

(MA):

31

Location: Fistral & Crantock

Policy Units (PU):31.1, 31.2, 31.3, 31.4, 31.5, 31.6

DAMAGES

Scenario: **No Active Intervention**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	6	45.2	8	29.1	8	8.9	83.2
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	2	4.3	0	0.0	3	0.3	4.7
Total Damages							87.9
<i>Information</i>							

DAMAGES

Scenario: **Preferred Policy**

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	2	11.3	3	3.3	14.6
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	2	1.0	0	0.0	1.0
Total Damages							15.6
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
HTL North Fistral for Epoch 1(2) then moving to MR	
Notes:	367.3

Notes

Marginal B/C ratio because of high HTL/MR costs for North Fistral. Potential for private contributions should be investigated.

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	49.5	29.1	9.3	87.9
	Preferred Plan Damages (£k PV)	0.0	12.3	3.3	15.6
	Benefits of preferred plan (£k PV)	49.5	16.8	6.0	72.3
	Costs of Implementing plan £k PV	279	88	0	367
		Benefit/Cost ratio of preferred plan			0.20

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
0.25	0.16	0.12

Economic Assessment
Policy development Zone (PDZ)12

Location: Newquay Bay

Management Area
(MA):

32
Policy Units (PU):32.1, 32.2, 32.3, 32.4

DAMAGES

Scenario: No Active Intervention

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	13	245.0	15	152.1	16	50.1	447.2
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	9	177.2	177.2
Total Damages							624.5
<i>Information</i>							

DAMAGES

Scenario: Preferred Policy

Present value of flooding	No. properties	PVd 2025 (£k)	No. properties	PVd 2055 (£k)	No. properties	PVd 2105 (£k)	Total Present Value (£k)
Flooding damages	0	0.0	3	30.4	3	10.0	40.4
Present value of erosion							
	0-20 yrs		20 to 50 yrs		50 to 100 yrs		
	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	No. properties	PV for epoch (£k)	
	0	0.0	0	0.0	2	35.4	35.4
Total Damages							75.9
<i>Information</i>							
Car park & road losses not accounted for. Erosion and flood risk delayed and reduced due to MR policy							

Costs

Preferred Policy

Description	PV value (£k)
HTL at harbour throughout and at Towan & Tolcarne in epoch 2	
Notes: Very high costs for harbour maintenance	1817.6

Notes

Marginal B/C ratio is significantly influenced by high cost of harbour
If harbour excluded B/C ratio approx 2. Therefore additional justification required for the harbour.

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	245.0	152.1	227.4	624.5
	Preferred Plan Damages (£k PV)	0.0	30.4	45.5	75.9
	Benefits of preferred plan (£k PV)	245.0	121.7	181.9	548.6
	Costs of Implementing plan £k PV	1115	490	213	1818
Benefit/Cost ratio of preferred plan					0.30

Sensitivity Analysis		
Benefit/Cost ratio of preferred plan with costs -20%	Benefit/Cost ratio of preferred plan with costs +20%	Benefit/Cost ratio of preferred plan with costs +60%
0.38	0.25	0.19