

Jersey Shoreline Management Plan

AECOM



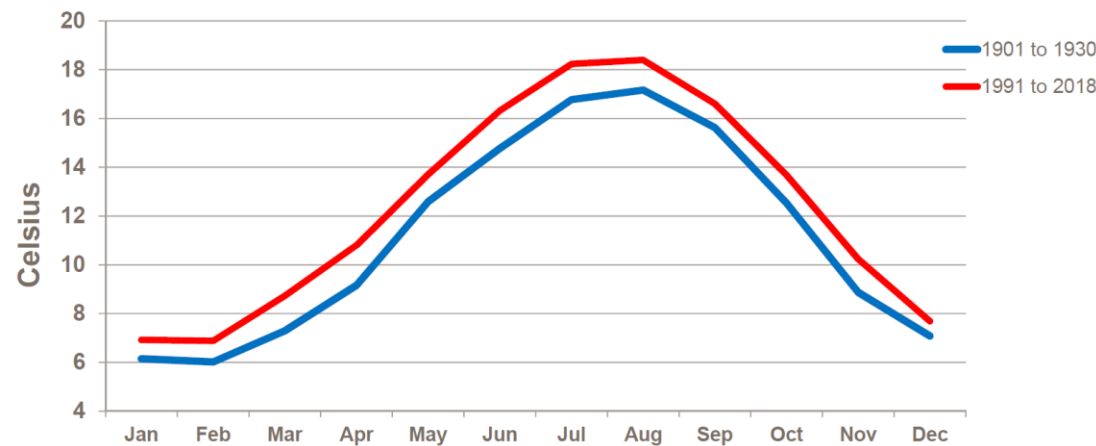
Public Consultation
July 2019

Overview of SMP



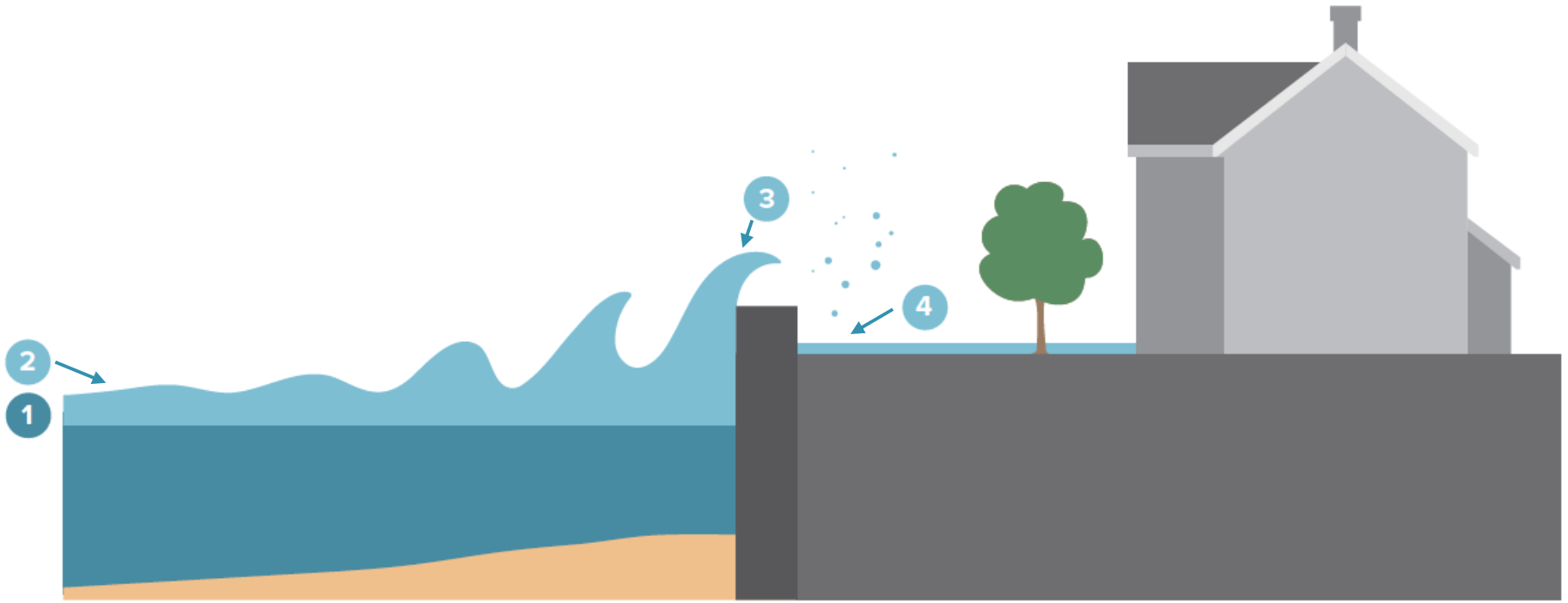
1. Flood & coastal erosion risk
2. Economic justification
3. Proposed Policies
4. Your Views

Climate change threats



- Rising sea levels
- Increased rainfall
- More frequent storms

Flood Terminology



1. Still water level – the level of the water if all wave and wind action were to cease
2. Storm surge – a rising of the sea as a result of wind and atmospheric pressure changes associated with a storm
3. Wave overtopping – where a wave exceeds the height of a coastal defence
4. Flooding – the coverage or submerging of normally dry land with a large amount of water


Properties at risk of flooding

- Assume no upgrades or defence adaptation / improvement – the ‘*With Present Management*’ Baseline

Year	Return period event (yrs)	Residential properties at risk	Non-Residential properties	Total properties at risk of flooding
2020	1:1	40	12	52
	1:20	161	73	234
	1:75	217	121	335
	1:200	277	183	460
2070	1:1	55	19	74
	1:20	193	176	369
	1:75	815	402	1217
	1:200	888	522	1410
2120	1:1	664	316	980
	1:20	952	764	1716
	1:75	1376	1013	2389
	1:200	1507	1315	2822

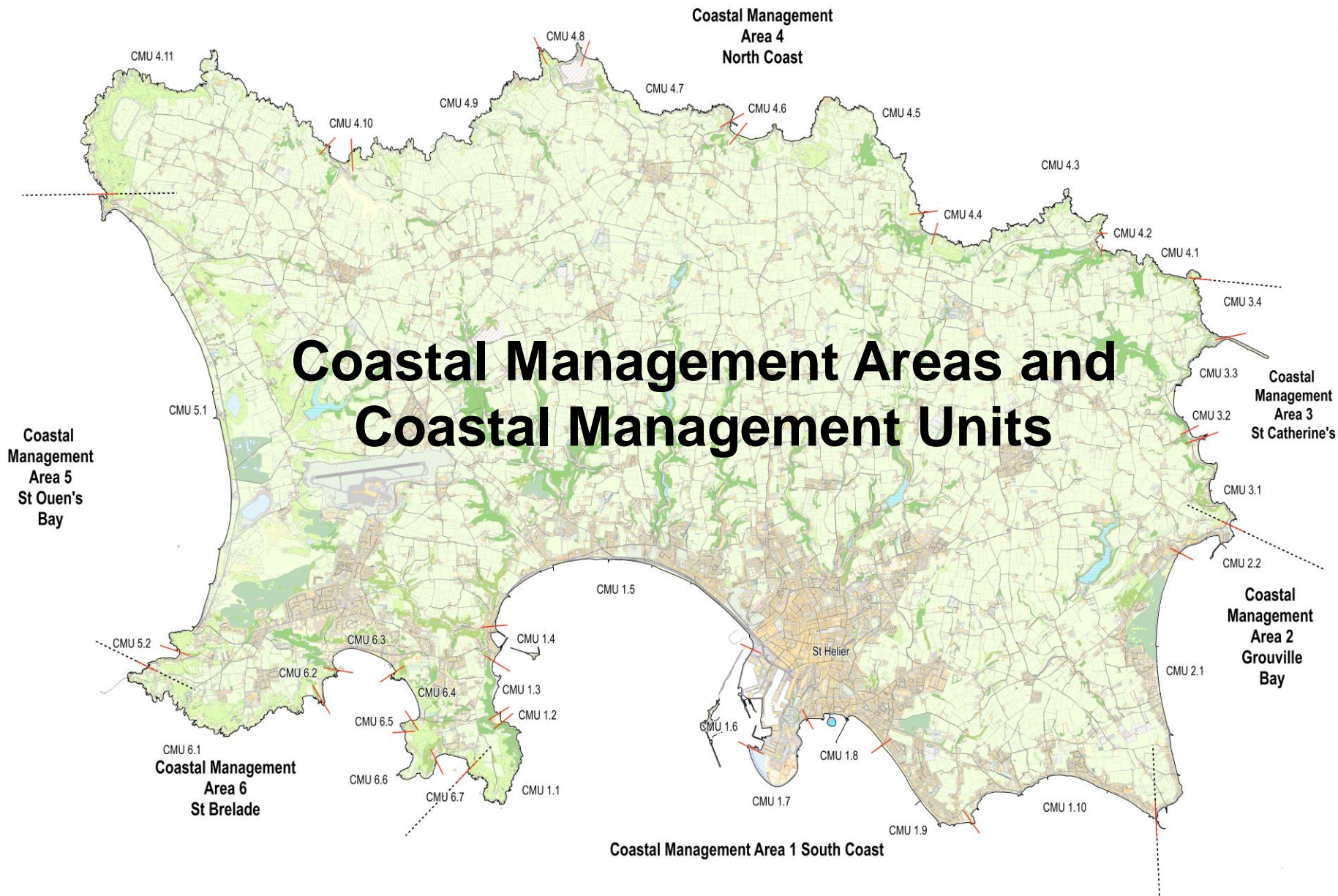
Potential physical flood damages: Island wide

- ‘With Present Management’ i.e. ‘Business as Usual’ for next 100 years
 - Cash damages are approximately **£2.7 billion**



– Cash damage predictions for a 1:200 year event:

- Today: **£9.6 million**
- 2120: **£92.5 million**

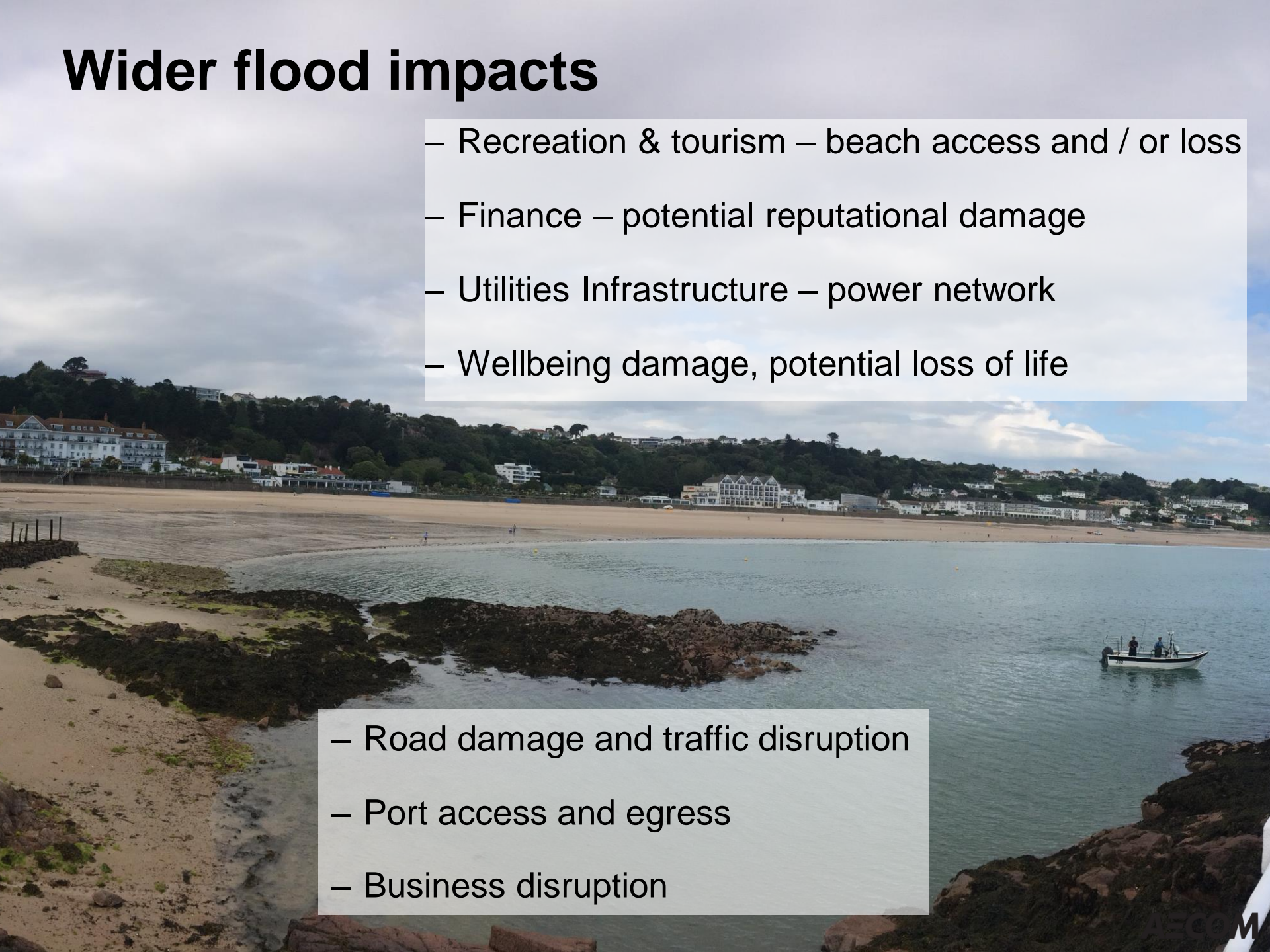


Estimated flood damages (2020 to 2120)

Spatial Extent	With Present Management Cash Damages (£m, rounded)
Island-wide	2,707
CMA1: South Coast	2,623
CMA2: Grouville	47
CMA3: St Catherine's	10
CMA4: North Coast	20
CMA5: St Ouen's Bay	5
CMA6: St Brelade	2

Wider flood impacts

- Recreation & tourism – beach access and / or loss
- Finance – potential reputational damage
- Utilities Infrastructure – power network
- Wellbeing damage, potential loss of life

- 
- Road damage and traffic disruption
 - Port access and egress
 - Business disruption

Potential business disruption damages: Island wide

– GVA damages reflecting business response to flooding

– Response:

- ‘Stay and Do Nothing’
- ‘Stay and Adapt’

– For a 1:200 yr. event:

- ‘Stay and Do Nothing’: **£110.4 million**
- With ‘Likely Business Response’: **£55.4 million**

– ‘With Present Management’
for next 10 years

- Annual Average Damage: **£10.9 million**

Policy Options



Policy Scoring for Coastal Management Units

– Balanced and integrated approach- criteria cover 4 key themes



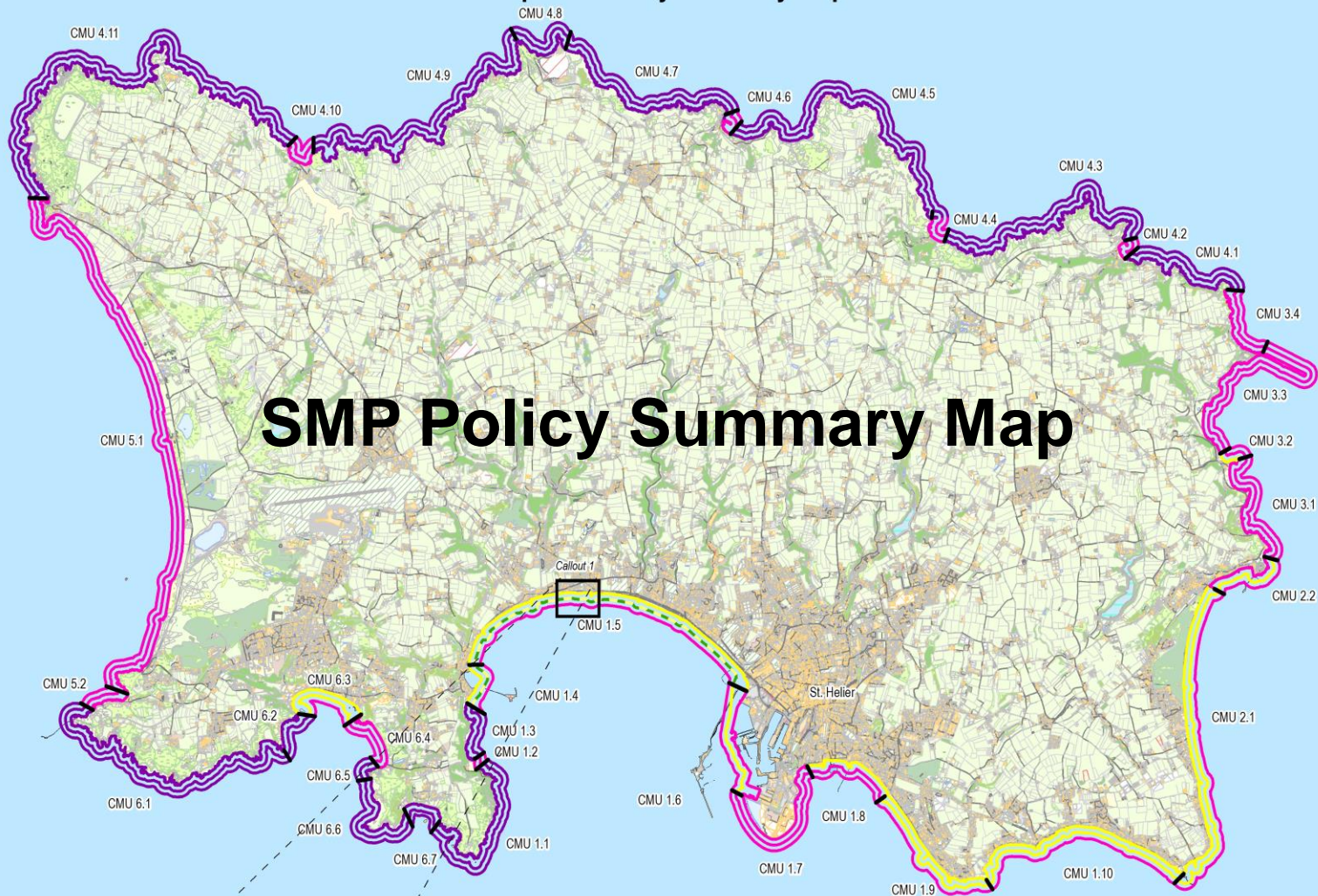
1. Defence
2. Community

3. Environment
4. Economy



Jersey Shoreline Management Plan Proposed Policy Summary Map

SMP Policy Summary Map



Legend

— Coastal Management Unit Division Lines

Policy Options

- Advance the Line
- Adaptive Management
- Maintain the Defence Line
- No Active Intervention



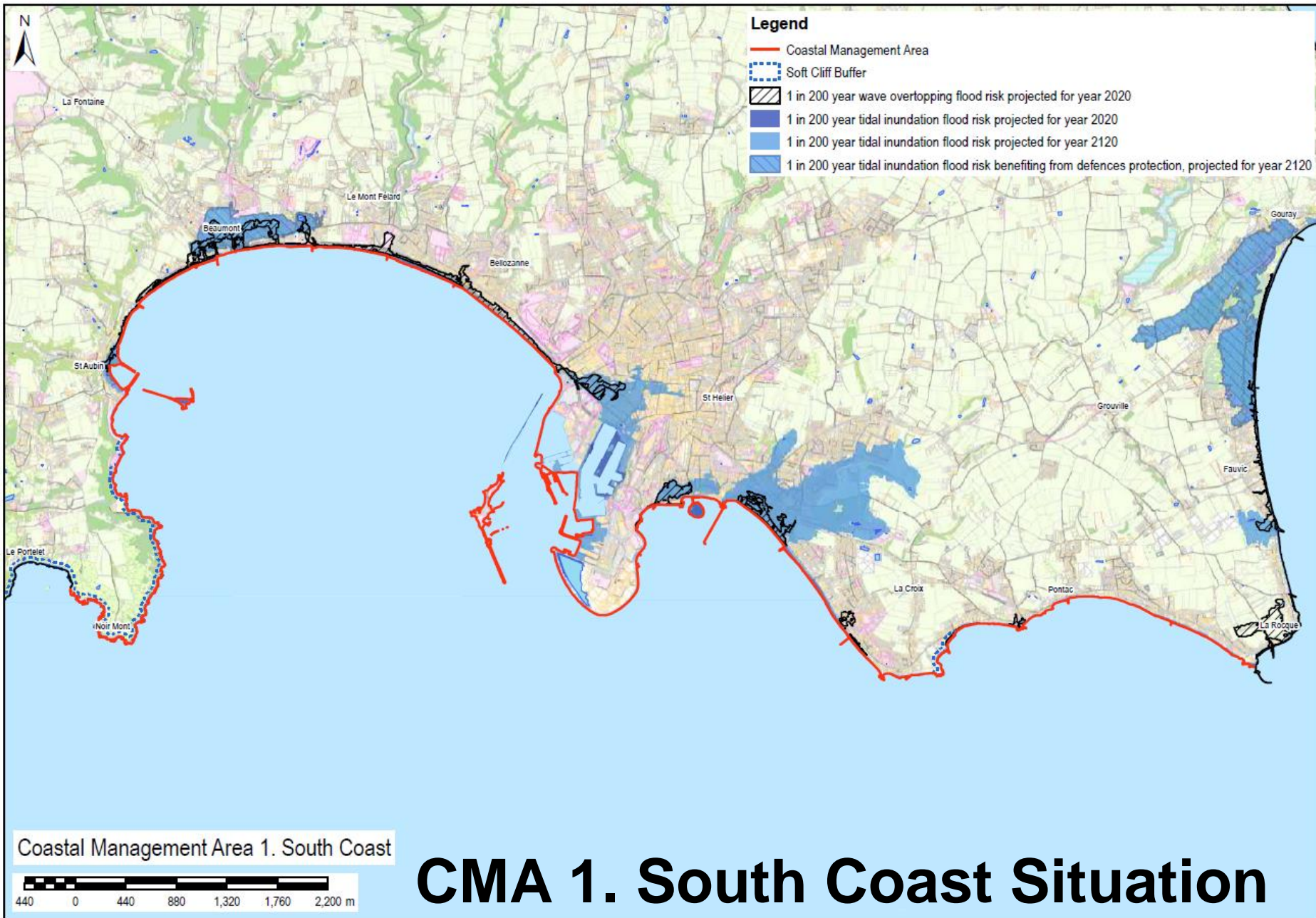
This map displays the policy options for individual coastal management units (CMUs) over the three time periods:

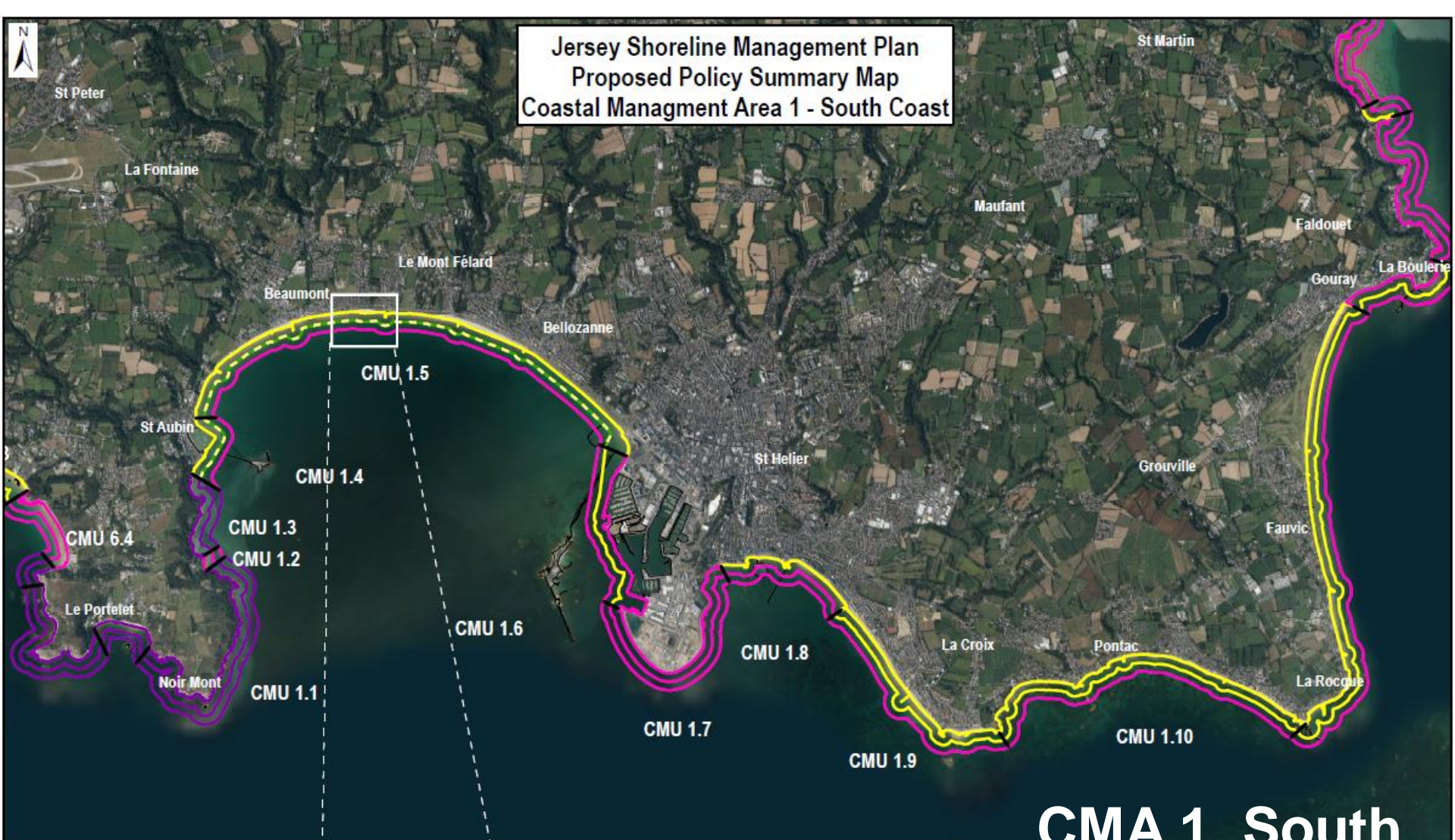
Present day (0-20 years)
Medium term (20-50 years)
Long term (50-100 years)

For CMU 1.4 and 1.5 (example given) the proposed policy option for Present Day is **Adaptive Management**, for the medium term is a dual policy of **Advance the Line** and **Adaptive Management**, and for the Long term is **Maintain the Defence Line**.

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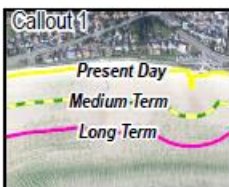




Jersey Shoreline Management Plan Proposed Policy Summary Map Coastal Management Area 1 - South Coast

Legend

- Coastal Management Unit Division Lines
- Policy Options
 - Advance the Line
 - Adaptive Management
 - Maintain the Defence Line
 - No Active Intervention



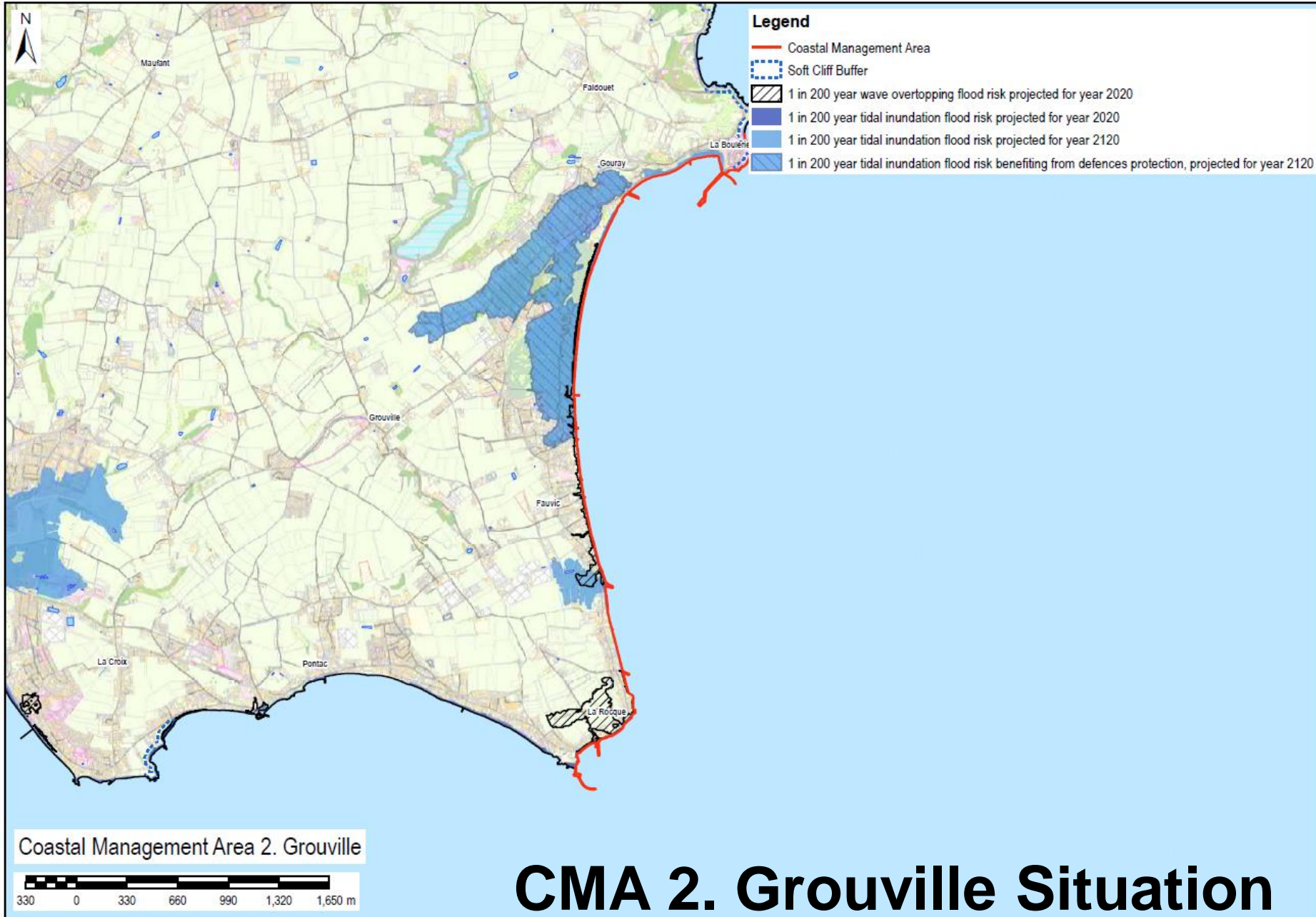
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CMA 1. South Coast Policy

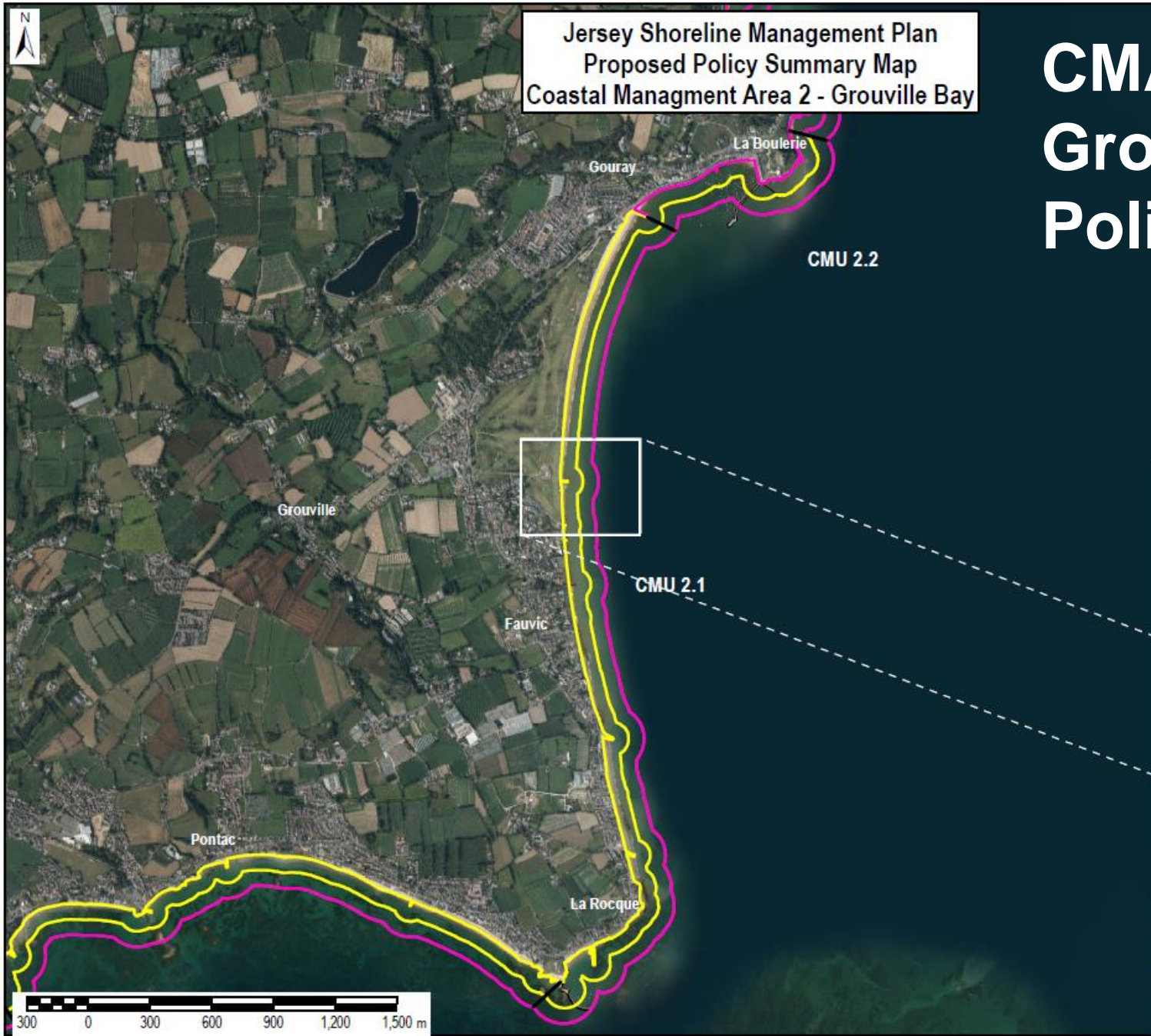






Jersey Shoreline Management Plan
Proposed Policy Summary Map
Coastal Management Area 2 - Grouville Bay

CMA 2. Grouville Policy

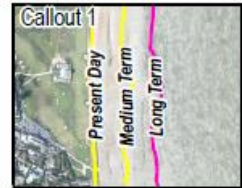


Legend

— Coastal Management Unit Division Lines

Policy Options

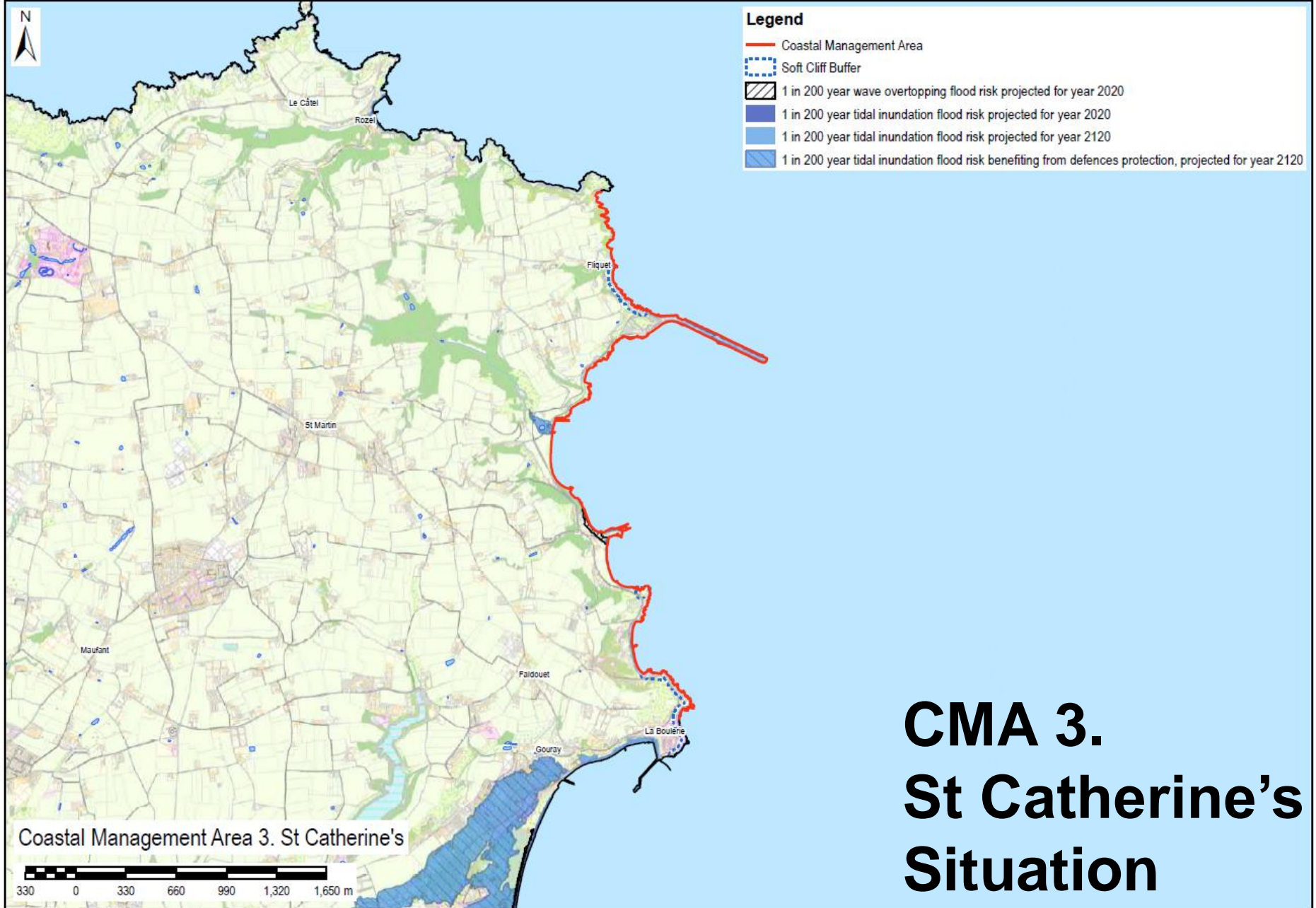
- Advance the Line
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- Maintain the Defence Line
- No Active Intervention



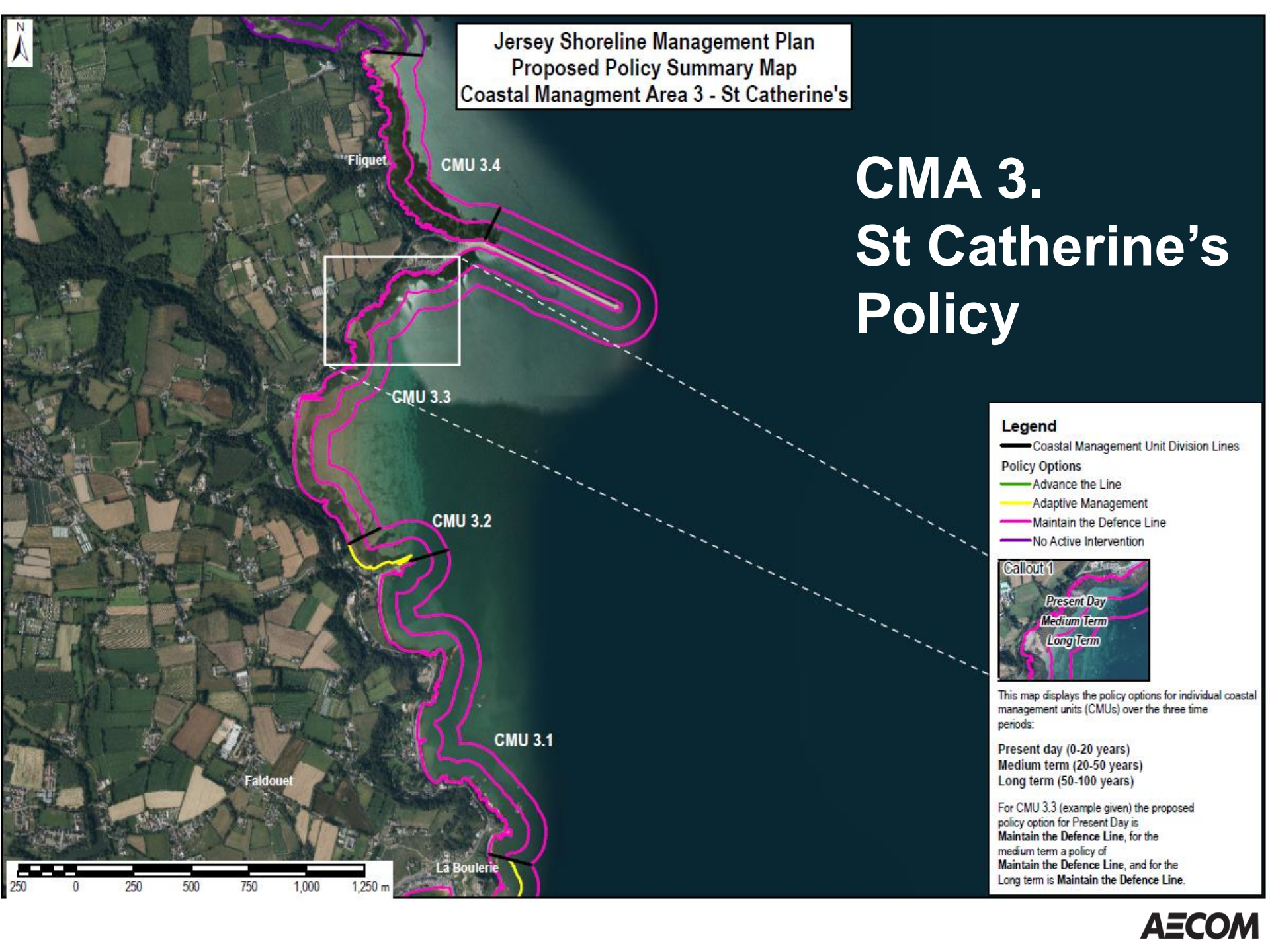
This map displays the policy options for individual coastal management units (CMUs) over the three time periods:

- Present day (0-20 years)
- Medium term (20-50 years)
- Long term (50-100 years)

For CMU 2.1 (example given) the proposed policy option for Present Day is **Adaptive Management**, for the medium term a policy of **Adaptive Management**, and for the Long term is **Maintain the Defence Line**.



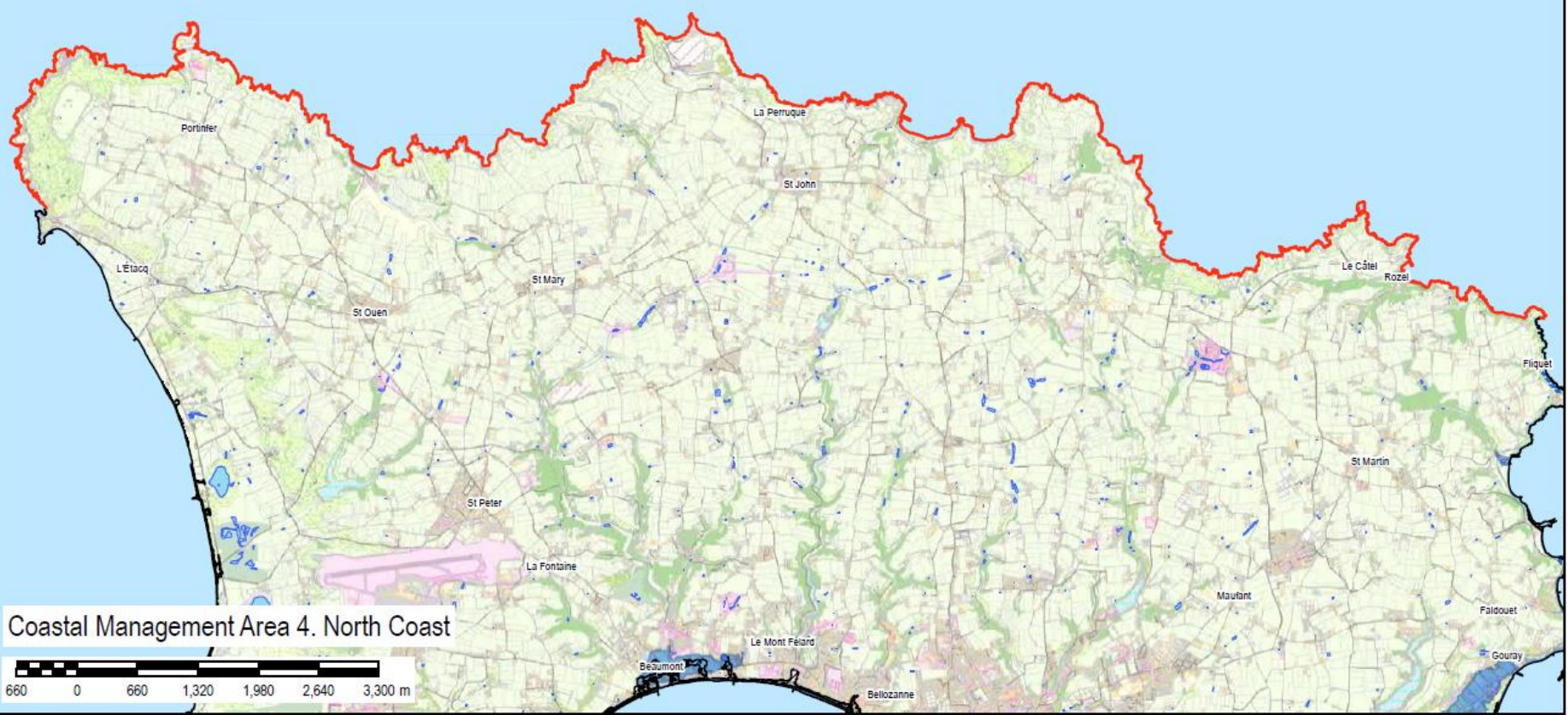
CMA 3. St Catherine's Situation





CMA 4. North Coast Situation

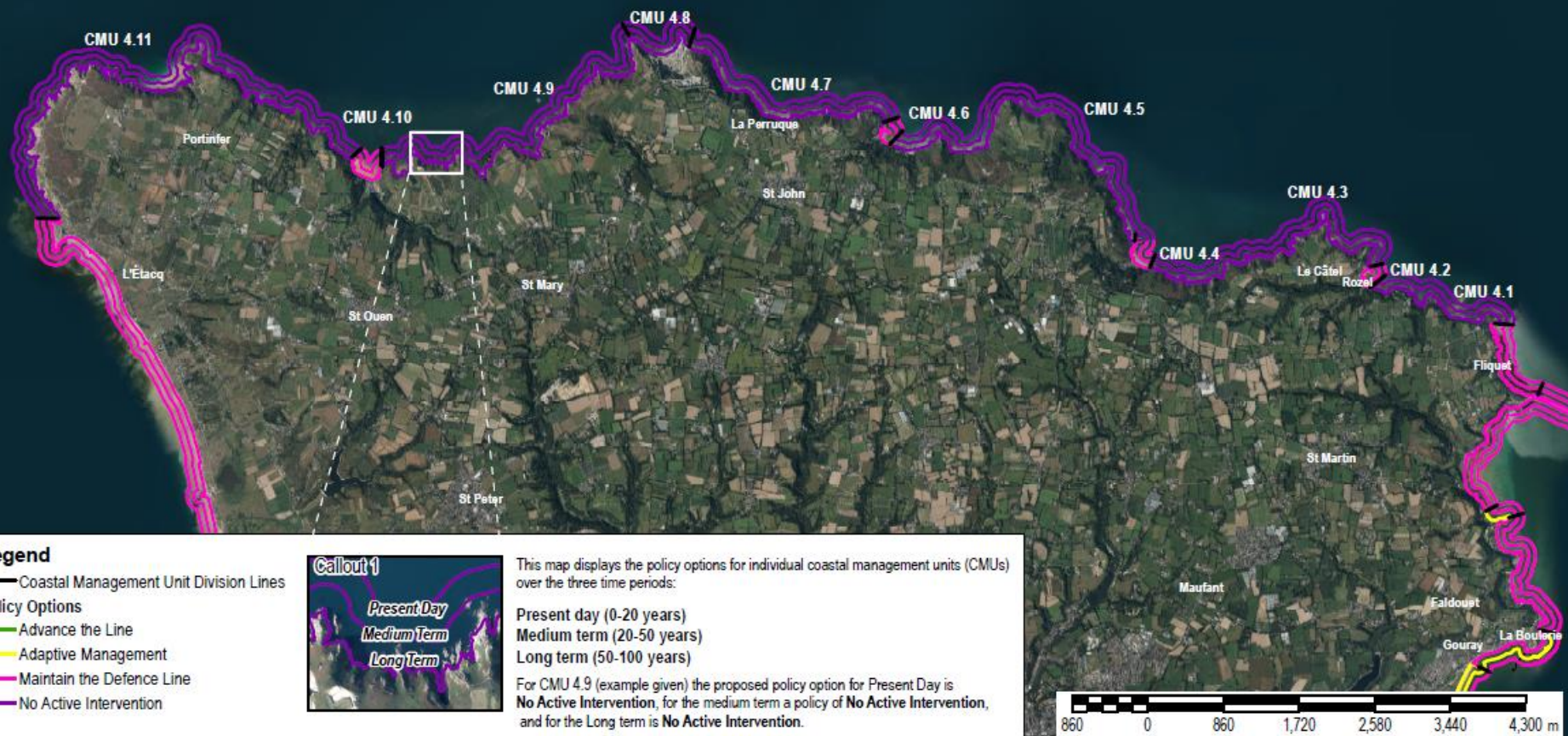
- Legend**
- Coastal Management Area
 - Soft Cliff Buffer
 - 1 in 200 year wave overtopping flood risk projected for year 2020
 - 1 in 200 year tidal inundation flood risk projected for year 2020
 - 1 in 200 year tidal inundation flood risk projected for year 2120
 - 1 in 200 year tidal inundation flood risk benefiting from defences protection, projected for year 2120



Coastal Management Area 4. North Coast

Jersey Shoreline Management Plan
Proposed Policy Summary Map
Coastal Management Area 4 - North Coast

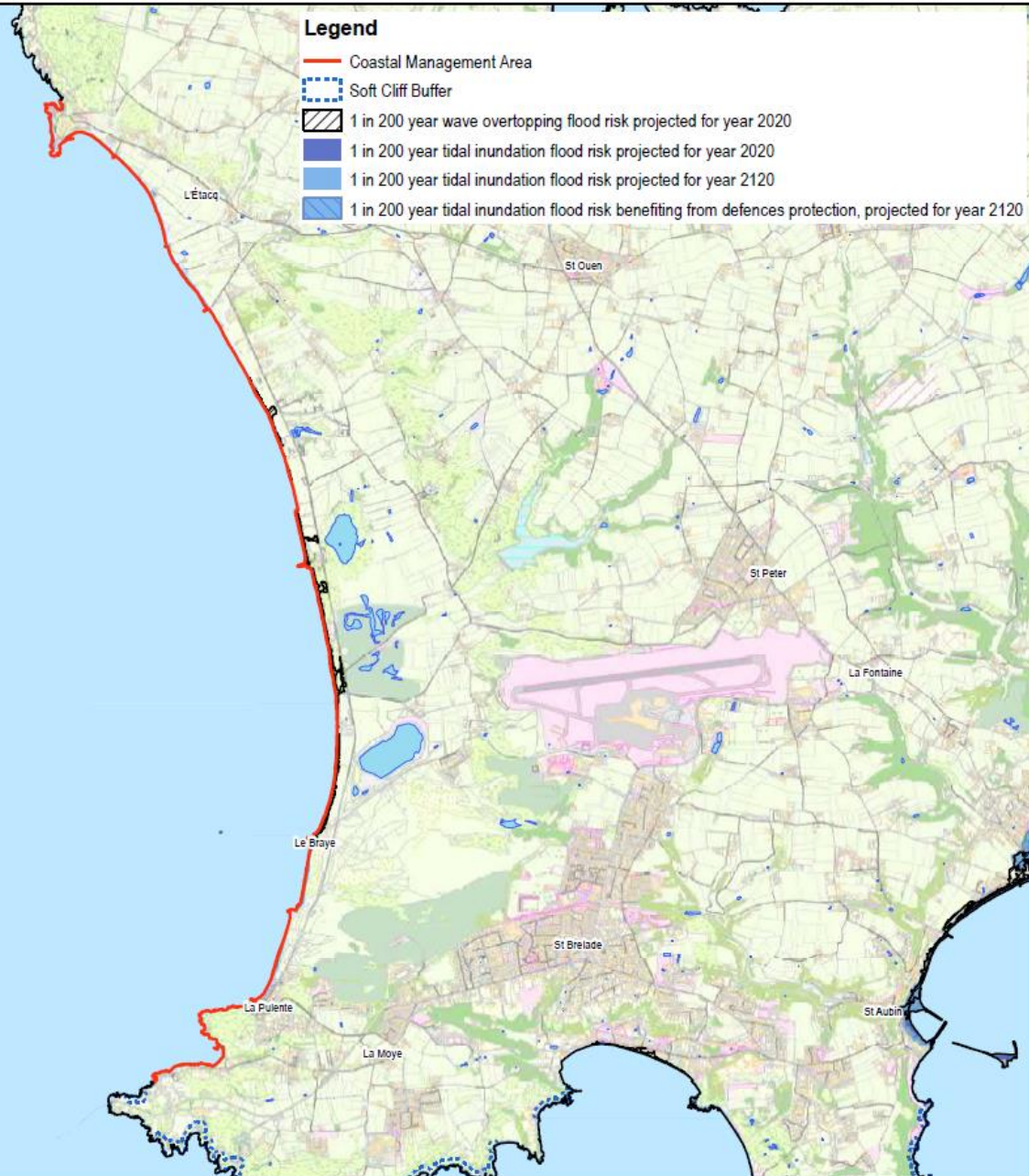
CMA 4. North Coast Policy



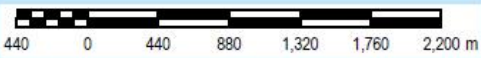


CMA 5. St Ouen's Situation

- Legend**
- Coastal Management Area
 - Soft Cliff Buffer
 - 1 in 200 year wave overtopping flood risk projected for year 2020
 - 1 in 200 year tidal inundation flood risk projected for year 2020
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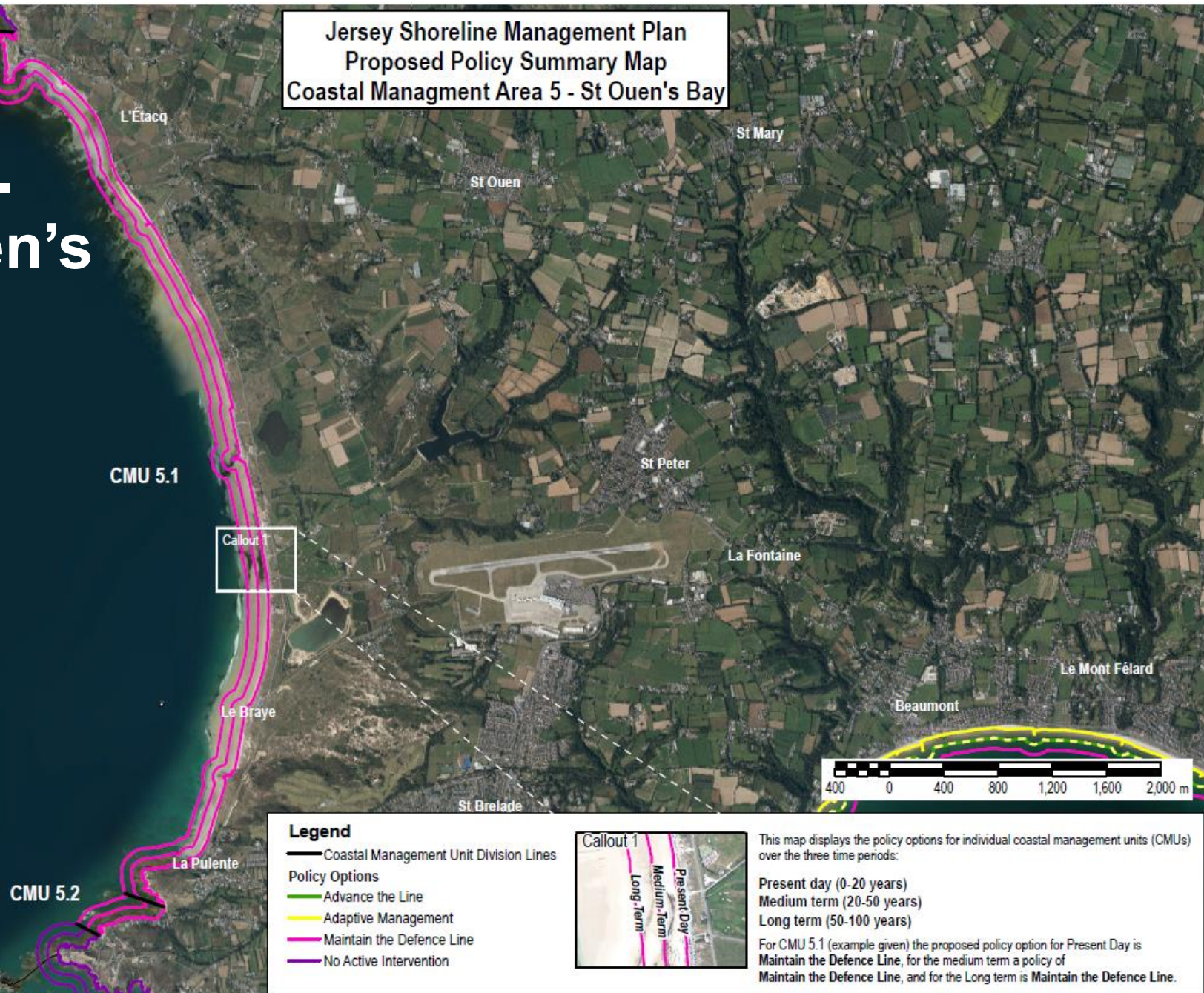
Coastal Management Area 5. St Ouen's





Jersey Shoreline Management Plan
Proposed Policy Summary Map
Coastal Management Area 5 - St Ouen's Bay

CMA 5. St Ouen's Policy



Legend

— Coastal Management Unit Division Lines

Policy Options

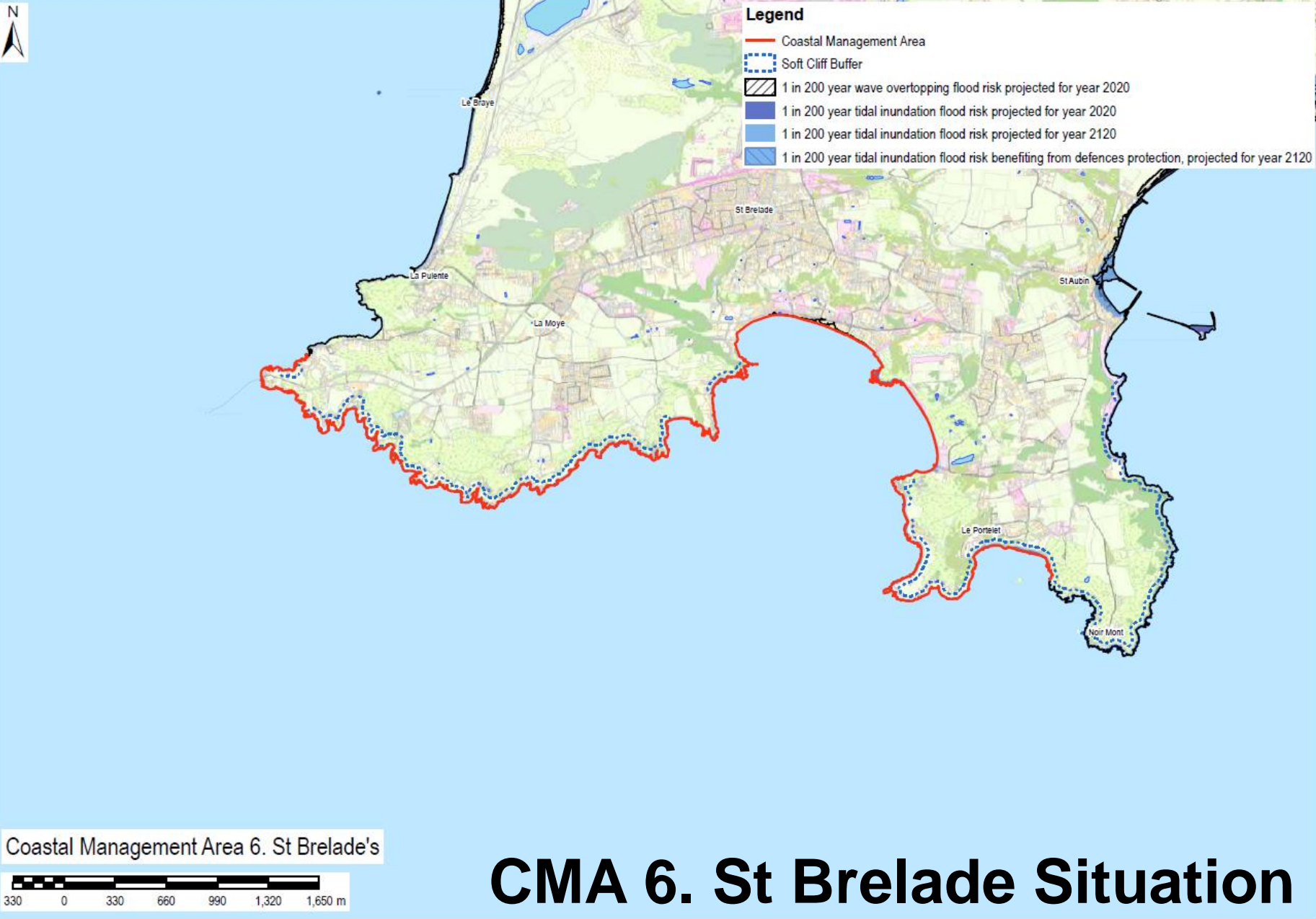
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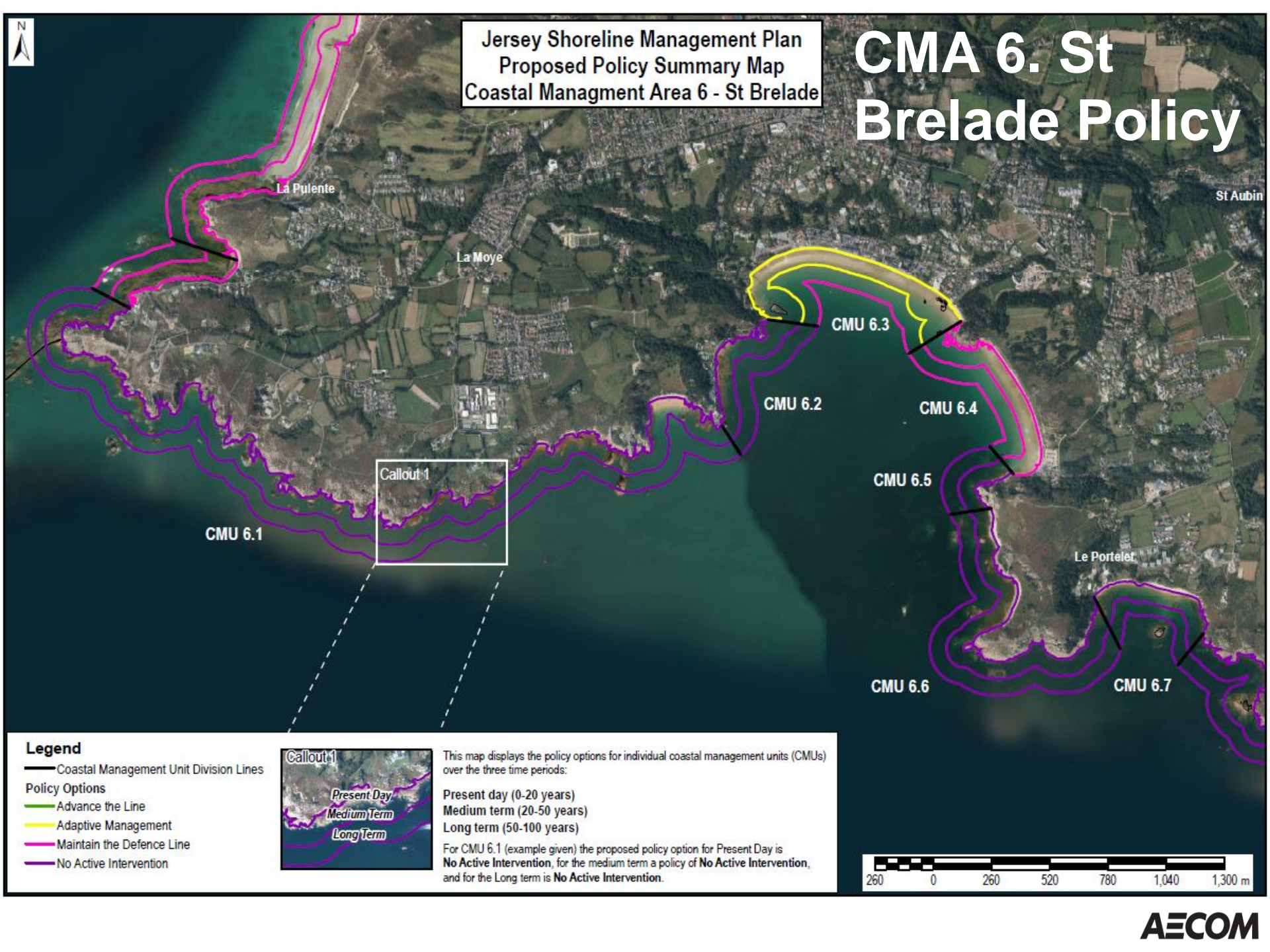
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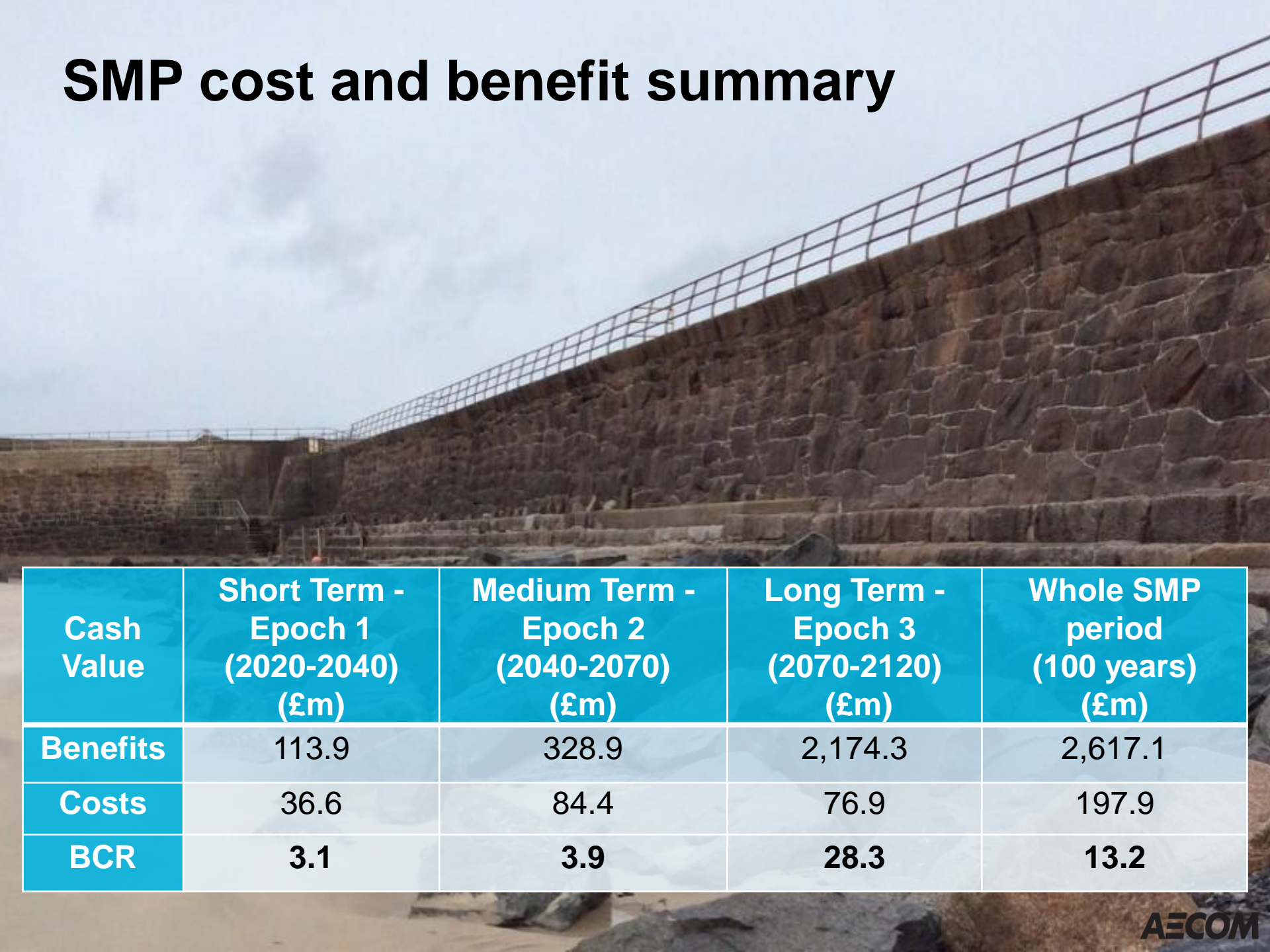
For CMU 5.1 (example given) the proposed policy option for Present Day is **Maintain the Defence Line**, for the medium term a policy of **Maintain the Defence Line**, and for the Long term is **Maintain the Defence Line**.



CMA 6. St Brelade Situation



SMP cost and benefit summary



Cash Value	Short Term - Epoch 1 (2020-2040) (£m)	Medium Term - Epoch 2 (2040-2070) (£m)	Long Term - Epoch 3 (2070-2120) (£m)	Whole SMP period (100 years) (£m)
Benefits	113.9	328.9	2,174.3	2,617.1
Costs	36.6	84.4	76.9	197.9
BCR	3.1	3.9	28.3	13.2

Economic take away messages

1. **460** properties currently at risk of coastal flooding, increasing to **2822** by 2120 as a result of climate change (with present management)
2. Additional potential GVA / business disruption losses for economy of up to **£110m** (cash) over the next 10 years
3. Total SMP implementation cost approximately **£198m** (cash) over the next 100 years
4. Preferred policy implementation will deliver approximately **£2.7bn** benefits (cash) over the next 100 years
5. The benefits of action outweigh inaction: SMP **BCR** (cash) = **13.2**

Programme Milestones – 2019

SMP Public Consultation: July – September

Draft SMP Action Plan: July – October

Integration with Island Plan Review: June - November

Published SMP: November

Your Island, Your Say

Jersey Shoreline Management Plan

- gov.je/consultations
- climatechange@gov.je
- Library hard copy and comment book

