

# Coastal communities adapting to climate change: an evaluation of capacity building and engagement in the Solent, UK

Anthony W. Gallagher



# If you thought the IPCC AR4 was gloomy .....



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## Climate change: It's even worse than we thought



(Image: Saul Loeb/AFP/Getty)

Five years ago, the last report of the Intergovernmental Panel on Climate Change painted a gloomy picture of our planet's future. As climate scientists gather evidence for the next report, due in 2014, **Michael Le Page** gives seven reasons why things are looking even grimmer

### EDITORIAL

#### › Obama should fulfil his 2008 climate promises

Extreme events caused by warming are happening much sooner than we thought they would. It's time for Obama to act  
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CLIMATE CHANGE

# Adapting to climate change

- **United Nations Framework Convention on Climate Change (UNFCCC) Bali, December 2007:**  
Adaptation to play a greater role in the global approach
- **Adaptation:** Post 2012 Pillar
- **Funding:** to develop a coherent and holistic policy framework with which to consider and implement adaptation
- **Questions and considerations:**
  - Discrete, specific strategies or mainstream into existing ones?
  - Top down or bottom up?

# Approaches to developing adaptation (Lim *et al.*, 2004)

Approach	Description
(Natural) Hazards-based approach	Assesses risk in the system and uses scenarios to estimate changes over time and space
Vulnerability-based approach	Characterises the system's vulnerability and assesses how likely critical thresholds of vulnerability are to be exceeded under climate change. Current vulnerability is seen as a reflection of both development conditions and sensitivity to current climate
Adaptive-capacity approach	Assesses the system's current adaptive capacity, and proposes ways in which adaptive capacity can be increased so that the system is better able cope
Policy-based approach	Assesses the efficacy of an existing or proposed policy in light of changing exposure or sensitivity

# Investment in adaptation: participatory projects in the Coastal Zone

## EU funded projects:



## Nationally funded projects:

### UK Coastal Pathfinders



Department for Environment, Food & Rural Affairs

# Contents

1. Coastal Communities 2150 and Beyond (CC2150)
2. Coastal Communities Adapting to Climate Change (CCATCH)
  - Governance and objectives
  - Risk, priority and engagement
  - Pathfinder: *Beaulieu to Calshot* engagement
3. Evaluating engagement
  - Methodology and results: *Beaulieu to Calshot*
  - Evaluation and lessons learned
4. Conclusions

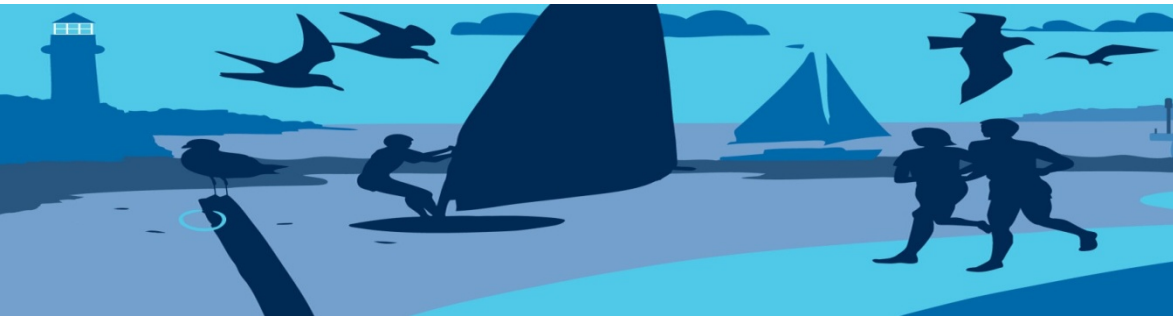


# Coastal Communities 2150 & Beyond (CC2150)

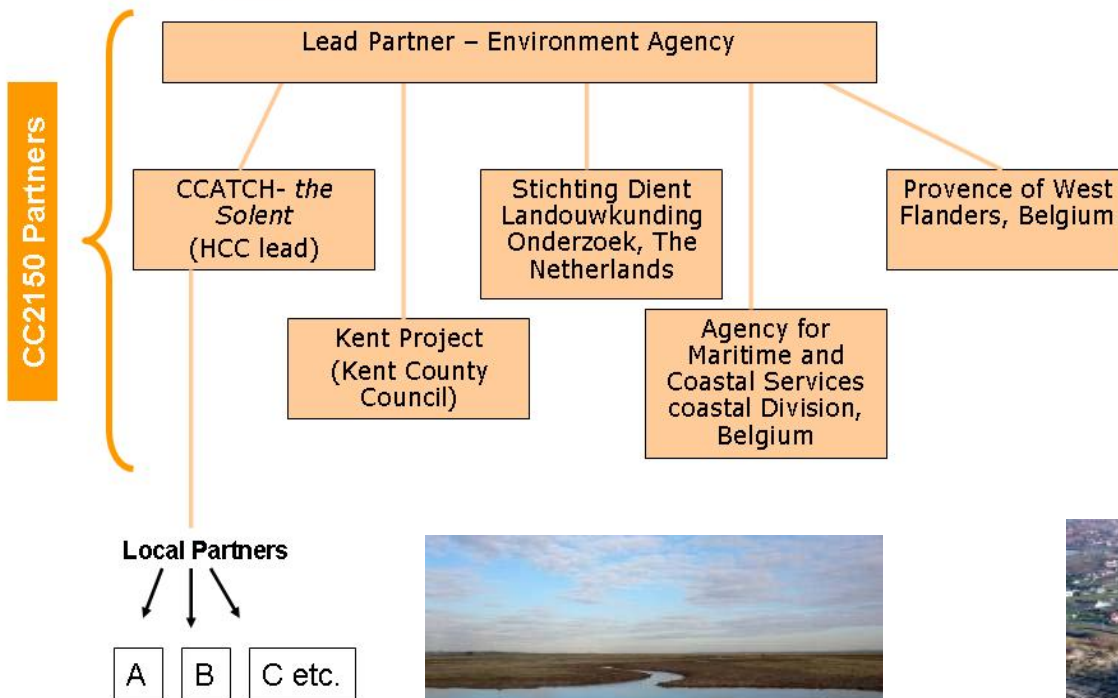
- EU Interreg IVa 2 Seas programme

“to create the conditions that could decrease vulnerability to coastal change in communities in the 2 Seas area through the exchange of knowledge within the context of integrated coastal zone management (ICZM)”

- Running from Jan 2011 – Dec 2013
- Project value: 2,886,426 €



# CC2150: *Partners*



# **CC2150: *Project outputs and outcomes***

## **Outputs**

- Five community visions
- Suite of tested and transferable engagement products
- Practical adaptation guide (including risk profiling template)
- Dissemination of lessons learned based on evaluation

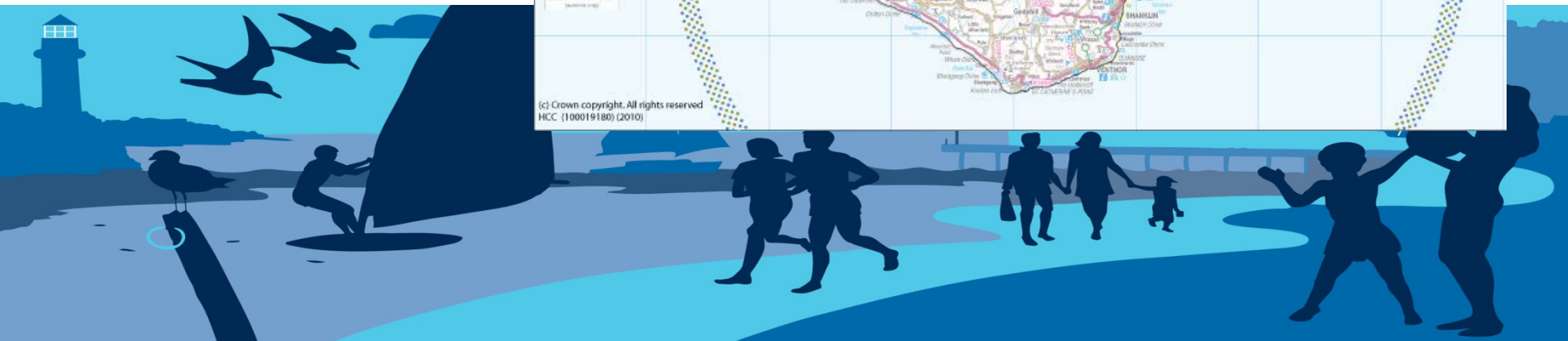
## **Outcomes**

- Enhanced community networks
- Increased local community knowledge
- Acceptance / tolerance of coastal change and need for action

# Coastal Communities Adapting to Climate Change (CCATCH – *the Solent*)

**Project manager:**  
Hampshire County  
Council

**Facilitator:** Solent  
Forum



# CCATCH: *Risk and Priority Areas*

## *Risk profiling:*

- Number of specific land use 'units' at risk
- Proportion of specific land uses 'at risk'
- Existing management



$$\text{Risk (R)} = \text{Probability (p)} \times \text{Consequence (L)}$$

# Beaulieu – Calshot: Priority Area



Country Park; activity centre; beach huts; Calshot Castle; private estates

Facilities at risk: erosion and flooding

SMP 2: ***'No active intervention'***

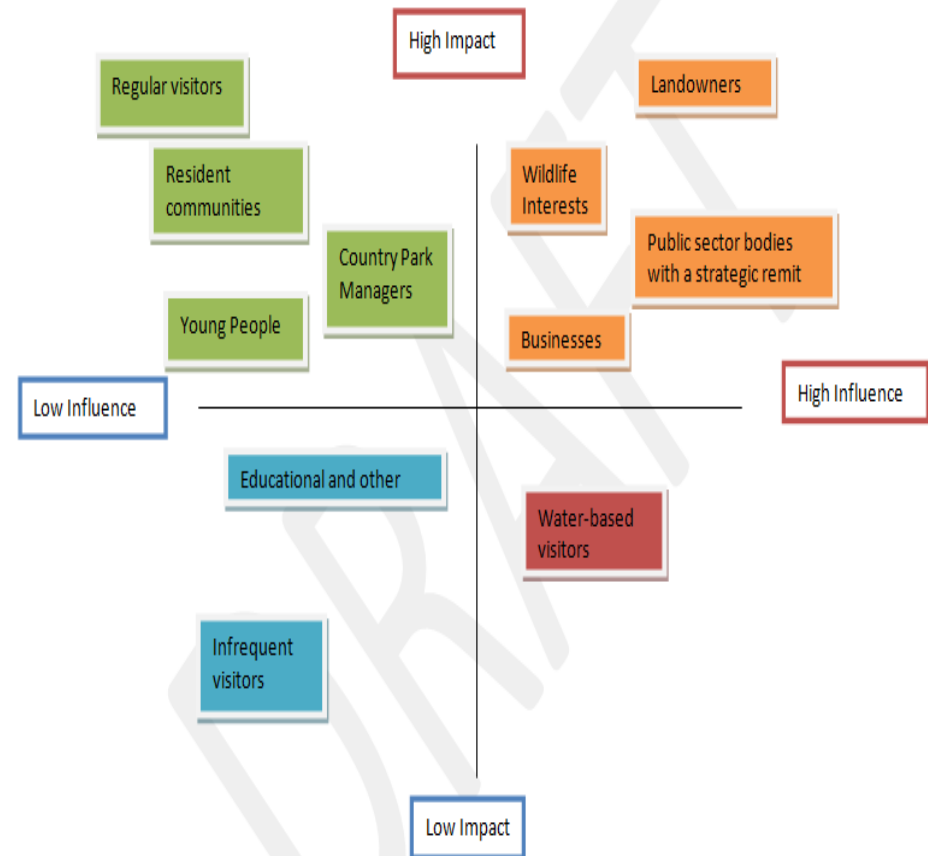
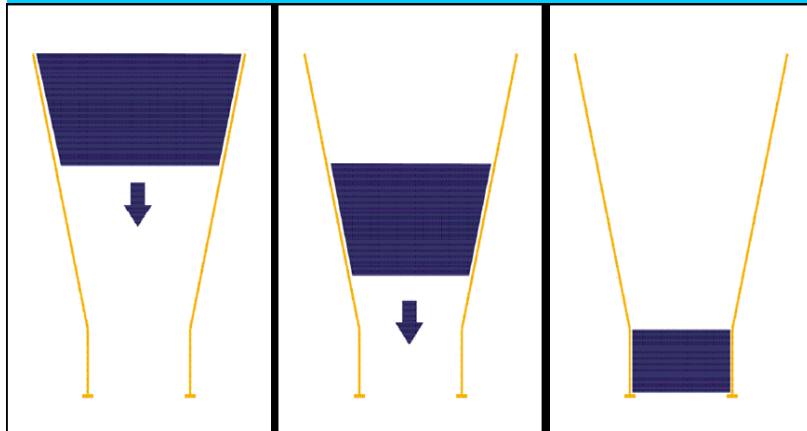
Attracted DEFRA funding as a 'Pathfinder' project in 2010



# Beaulieu – Calshot: Engagement Process

## 3 phases of engagement:

1. Community engagement (public participation)
2. Deliberative dialogue (selected stakeholders)
3. Engender action ... *long term buy-in*



Stakeholder analysis

# Phase 1 community engagement

## Coastal Change Conversations

- Timeline
- Stories of change
- Erode art project
- Drop ins
- Marine week event
- Leaflet drop
- Transect walks
- Google map

## Resources and education

- 3d models
- Maps
- Pamphlet – information about coastal change
- Guidance and volunteer training on engagement
- Houses on shore
- Markers on the shore
- Working with schools

## Technology

- Website
- Computer generated flythrough



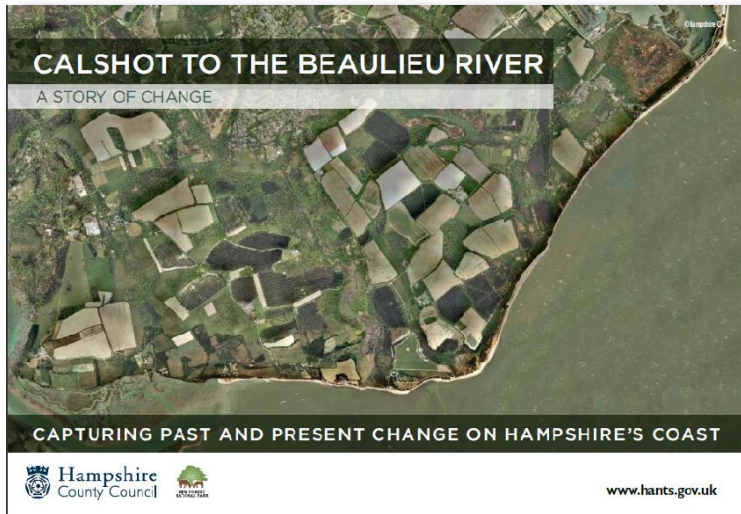
# Phase 1: Timeline



• Large dinosaur footprint testified by removing the natural background of the incision. (see West 6/3/2004)



# Phase 1: Stories of Change



*"My first thoughts are of the constant erosion along the coast between Lepe & Calshot. Since we have been coming on a regular basis over the past 8-9 years we have really noticed how the sea level has risen nearer the cliff edge."*



"I wasn't here when the coastal footpath existed, and to me it looks like it had been destroyed a very long time ago. I was shocked when I found out that when March's storm washed it away, the footpath had only just been repaired. I can barely imagine the shingle being up to the height of the boards as there is also less shingle in front of the boards."



Coastal Communities Adapting to Change (CCATCH) - Windows Internet Explorer

http://www3.hants.gov.uk/countryside/catch.htm

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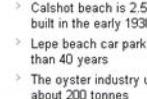
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Coastal Communities

Members page

Stones of Change

Featured Story of Change

Lepe past and present

Coastal Communities Adapting to Change (CCATCH)

Latest News Latest information Project background Links

The CCATCH project is moving forward to the next phase of community engagement. During the summer months consultants Resources 4 Change, staff at Lepe Country Park and others carried out various engagement activities to gather information on changes to the coast and also to raise awareness of coastal change.

The final community engagement strategy has been produced which identified methods to move towards adaptation and identified changes along the coast including:

- The beach length below Lepe House has increased; the slipway was 21 metres long and is now only 8 metres; the remaining 17 metres is now under sand.
- Lepe spit is increasing; it is the nodal point of wave action from west and east.
- Calshot beach is 2.5-3 metres narrower that it was when the beach huts were built in the early 1930s
- Lepe beach car park and visitor centre have flooded at high spring tides for more than 40 years
- The oyster industry used to haul 1,500 tonnes annually; this is now down to about 200 tonnes

Win a season ticket

We are asking users of Lepe Country Park to spend a few minutes completing a brief [questionnaire](#) to win a season ticket to Lepe Country Park worth £39

The results will enable us to assess the success of a recent project which aimed to raise awareness of how this stretch of coast might change in the future and how people can prepare or adapt.

If you want to be in with a chance to win the season ticket, make sure you add your contact details.

➤ Go to the [questionnaire](#)

Project downloads

➤ [CCATCH presentation 2.7mb pdf](#)

Contacts

Jo Hale  
Strategic Development Manager

Map - Windows Internet Explorer

http://www3.banks.gov.uk/countryside/cratch/cratch-map.htm

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Coastal Communities

Members page

Stories of Change

Featured Story of Change

Leave past and present

### Points of interest map

**Boulders**  
Updated Nov 4, 2010

Reduce wave energy and deposit shingle, building up beach at least 3 feet. (Source: venture Search & Rescue)

Directions Search nearby Save to map more ▾

Map Sat Ter Earth

Map

Unknown Zone (Mixed) | Protected Mode: Off | 100% | 16:24

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## Markers on the shore

*Have you seen markers like these around the site?*

There are 6 at Lepe Country Park and 5 around Calshot Activities Centre. They have been placed along the shore as part of the Coastal Communities Adapting To Change project (CCATCH) to encourage you to think about how the coast may change in the future and what effect it will have on the ways you use it.

### at is causing coastal change?

as are rising due to increased global temperatures) which cause ice to expand and land-based ice to melt. In addition, since the 19th century the sea levels at the end of the last ice age the UK is naturally rising into the sea with south east England sinking at western Scotland

### ing coastal processes of erosion and deposition

always shaped our coastline. It is thought that with sea level rise and an increase in violent storm events there will be a loss of beach material through erosion and an increase in flooding of parts of shoreline between Lepe and Calshot.

**Coastal change can produce benefits for wildlife.** As low lying areas flood with sea water saltmarshes are created which provide ideal habitat for ducks, geese and waders. This is happening in the Dark Water Valley at Lepe.

**Planning for the Future**  
 The proposed policy in the North Solent Shoreline Management Plan produced by the New Forest District Council for the majority of the coastline is No Active Intervention. This means that in most cases there will be no replacement of sea defences as they come to the end of their life.

At Lepe any new or replacement facilities such as a visitor centre, would need to be sited at a higher level to avoid damage from future erosion and flooding.

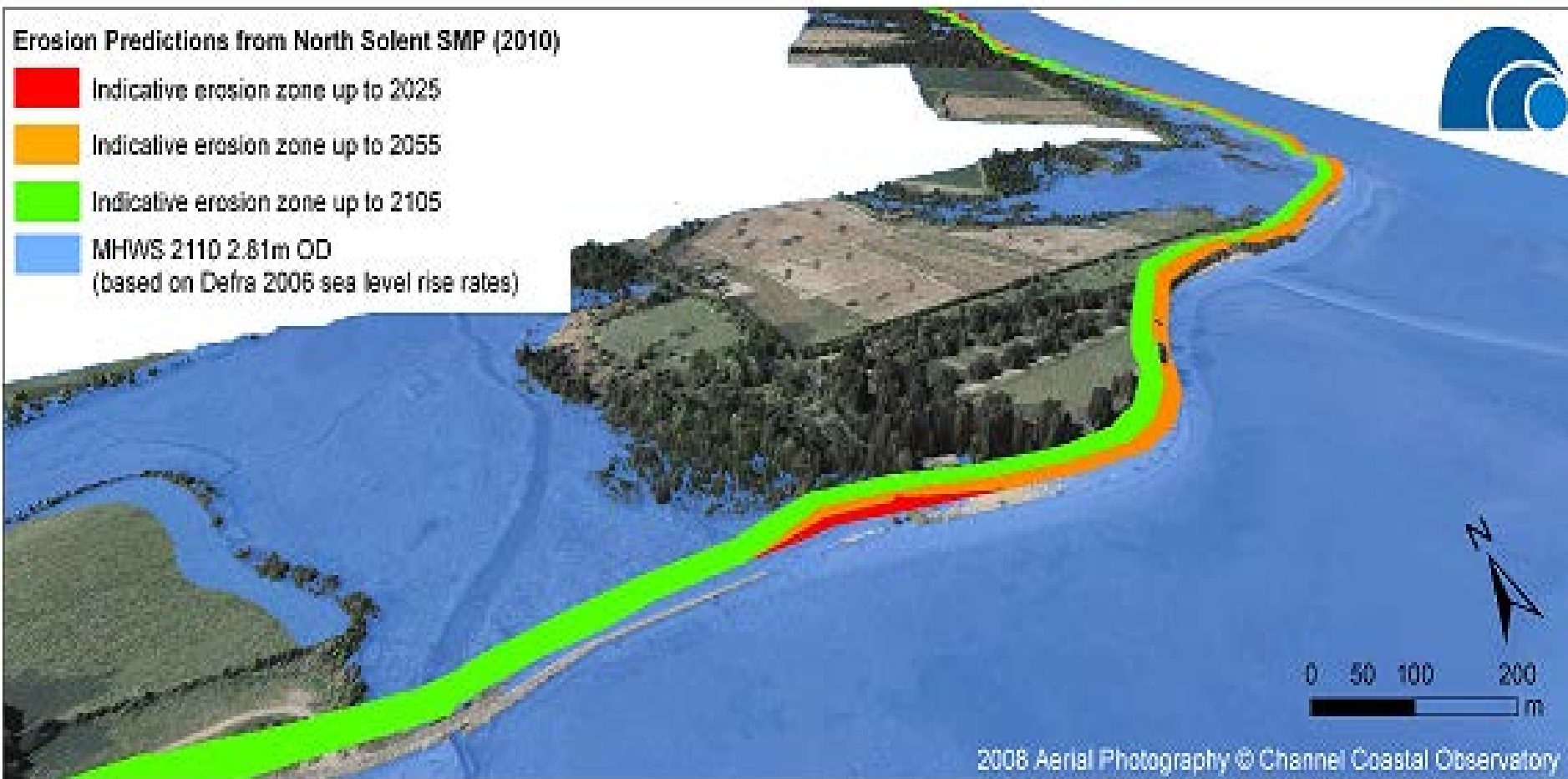
At Calshot the policy is to Hold the Line for the next 50 years and No Active Intervention in the longer term. Maintaining the beach using grynes and rock groynes helps to protect the road and buildings on the spit from flooding. If these structures are not maintained and replaced the way that Calshot spit is used may have to change.

Local landowners and managers, including the County Council, need to take coastal change into account when planning for the future. In many cases there will be the need to adapt.

To find out more look at: [www.hants.gov.uk/lepe](http://www.hants.gov.uk/lepe) or [www.hants.gov.uk/calshot](http://www.hants.gov.uk/calshot)

Hampshire County Council

# Phase 1: Maps and Flythrough



# Phase 2: deliberative dialogue

## Two stage workshop approach:

- **First workshop:** Key focus was transformative, i.e. *to develop consensual solutions to apparent challenges and needs*
- **Second workshop:** focussed on recommendations and actions to achieve solutions
- Led to the production of an Adaptation Plan ... **Phase 3**



.....**Success?**

# Evaluating participation and engagement

- Participation embedded in environmental decision making:
  - An established democratic right?
  - A panacea for difficult conflict based decisions?
- **Political initiatives:**
  - Agenda 21 - democratisation
  - UNECE Aarhus Convention, 1998
  - EC Directives

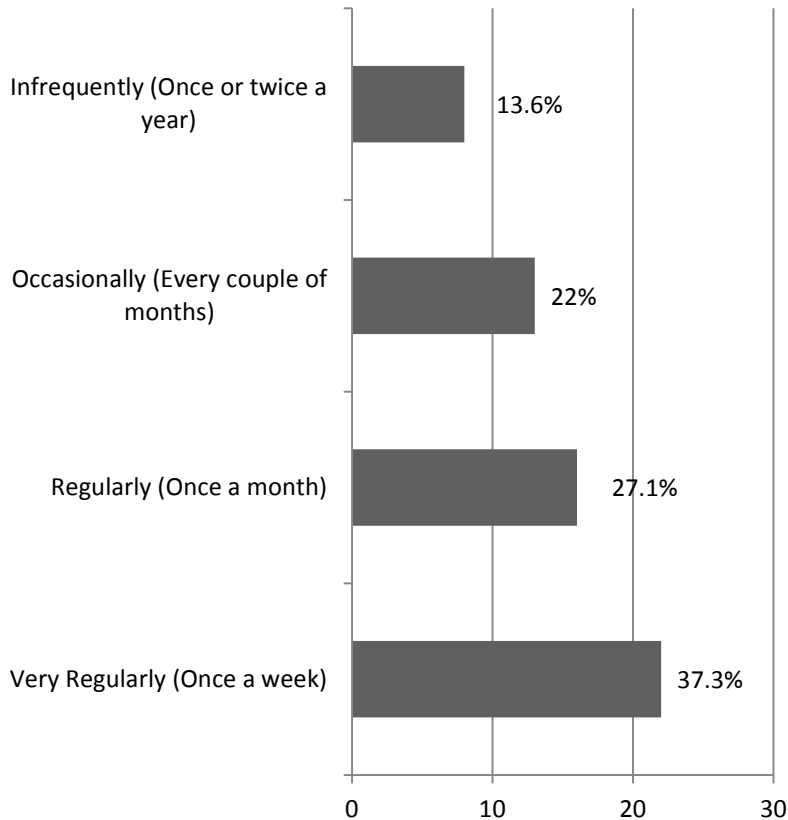
*..... Disillusionment due to apparent inability to achieve results?*

# Methodology and results

## a) Public survey

- To gauge public participation and awareness of the process
- No participant list exists so public survey undertaken:
  - On site interviewing
  - Survey left at Lepe and Calshot visitor centres with poster
  - Online survey on websites for Calshot and Lepe
- Incentive of prize draw (free car parking)

## Results: *59 respondents*



26 were aware of the project

55.9% were unaware of the engagement process

Only 12 participated in any of the Phase 1 engagement activities

Of those, 10 felt they learnt something

## b) Interviews

Cohort	Interview approach	Interview numbers	Interviewees
<b>Key stakeholders involved in the Steering Group</b>	Face to face	10	Lepe Country Park, Cadland and Exbury Estates, NFDC, Friends of Lepe, Beach Hut Users
<b>Stakeholders involved in the engagement</b>	Telephone Interviews	20	Calshot Activity Centre, Other Friends of Lepe, Parish Councils, Natural England, Environment Agency
<b>Facilitation consultants</b>	Telephone Interviews	2	Resources for Change, Dialogue Matters
<b>Other coastal adaptation engagement projects</b>	Telephone Interviews	4	Dorset pathfinder Cuckmere pathfinder Slapton pathfinder IMCORE: Cork Harbour

## Best practice characteristics in participation (Reed, 2008)

Underpinned by empowerment, equity, trust and learning

Considered for the life cycle of the process

Stakeholders analysis should be incorporated

Objectives should be agreed at the outset

Methods should be tailored to the context of the process

Highly skilled facilitation is essential

Local and scientific knowledge should be integrated

Participation should be institutionalised

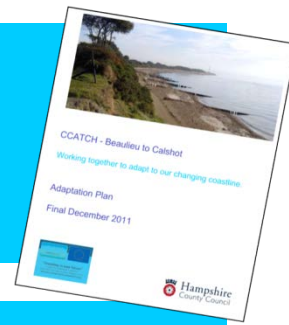
# Results: Phase 1

- Innovative and wide ranging; key messages presented in a variety of ways ... *scattergun*?
- Some measures more successful than others:
  - ***Successes***: Stories of Change; Timeline; and visual techniques such as the animated fly-through
  - ***Less successful***: beach art and sculpture activities
- Stakeholder analysis: quite successful but not all stakeholders were aware of the project and certain types (i.e. young people) not involved
- No deliberate exclusion: unlike some other projects there was ***no use of local media*** (newspapers, radio and TV) to attract attention ....








## Results: Phase 2

- Well organised and facilitated
- Representation elitist? No 'unaffiliated' individuals included
- Participants well engaged with the process: felt respected and able to make a contribution .... ***no barriers to the quality of engagement***
- Discussions helped to build consensus and manage conflicts between stakeholders
- Process led to mutual understanding and paved way towards agreeing possible actions

# Results: Adaptation Plan



- The Plan and actions reflected the views of stakeholders but the actions were not sifted for efficacy
- Need to ***prioritize actions and to develop clear mechanisms of implementation***
- The success of CCATCH will not be judged on what has been achieved so far but on its eventual outcomes
- Related to this is the desire for most stakeholders to remain involved .... though initial arrangements for ongoing communication were considered satisfactory ..... ***Cuckmere Pathfinder / Friends of Cuckmere***

Characteristics of best practice in participation (Reed, 2008)	
Underpinned by empowerment, equity, trust and learning	
Considered for the life cycle of the process	
Stakeholders analysis should be incorporated	
Objectives should be agreed at the outset	
Methods should be tailored to the context of the process ...	
Highly skilled facilitation is essential	
Local and scientific knowledge should be integrated	
Participation should be institutionalised	

# *(Salient)* Lessons learned

Effective stakeholder engagement takes time

Maximise project communication and publicity ... use of media

Provide engagement opportunity but do not waste effort in chasing stakeholders who are not interested

Record all participants involved during the process

Consideration should be given to the appropriate use of consultants

Effective stakeholder engagement requires specialized skills

Maximise objective visualisation as a means of communication

Ensure project longevity by enabling the on-going use of developed materials

Manage responsibilities and commitment for the duration of the project

Enable coastal adaptation engagement beyond the life of project



# Conclusions



**“If Winter comes,  
can Spring be far behind?”**

**Percy Bysshe Shelley (1792–1822)**

**The consequences of hazards can be minimized and adaptation  
provides the most reliable means**



# Conclusions

- The usefulness of project evaluation lies in its ability to evaluate the project in its own right but also as a means of comparison
  - CCATCH *Beaulieu to Calshot*: innovative; successful in raising awareness and shifted the attitudes of many stakeholders towards coastal change ...
  - ***Local specificity*** is an important characteristic for adaptation planning
  - ***Use of media*** (including social?) would be beneficial
  - ***Implementation*** / legacy will be the test of its success .....
- .... adaptation planning should include a full consideration of life cycle both in opportunities and resources***

**Thankyou for listening**

