



Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland



Shoreline Management in Northern Ireland

Professor Andrew Cooper
Ulster University





**Scenic beauty
Recreation
Tourism
Wellbeing
Ecosystem
Natural sea defence
Filter**

The Value of our Coast

“Ecosystem services are the benefits provided by ecosystems that contribute to making human life both possible and worth living” (UK NEA)



Portrush



Blackpool



Cultural Services

Coastal Change

Progressive/gradual

Episodic



Portstewart



Portstewart



Portrush July 2014



Portrush Feb 2015





Slow, but progressive erosion of the soft cliffs sustains the beach

Resident calls for urgent action over coastal erosion

Tuesday, 25 March 2014 19:59 | font size | Print | Email

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HOMES in Cranfield are in danger of being cut off due to severe coastal erosion.

Erosion Problem



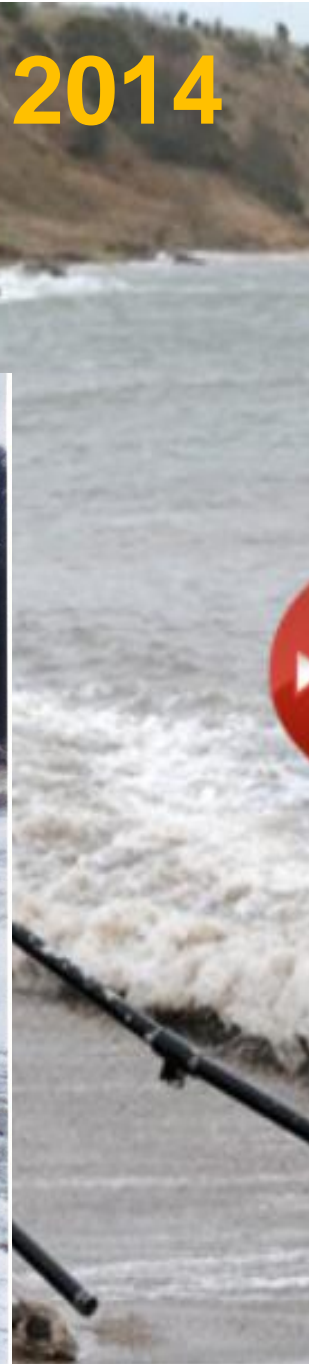


**Storms and climate change
are not a threat to coasts...**

But infrastructure and development are.



Cushendall, Jan 2014





Slieve Donard Hotel 2002.

3rd Feb 2014



Ten people rescued from a bus in Newgale, Pembrokeshire.

Newgale

Road



Image NASA
Image © 2014 Getmapping plc
Image © 2014 Bluesky, Infoterra Ltd & COWI A/S

Google earth



Dawlish, Devon
5th February 2014





Aberystwyth Promenade
Jan 14th 2014





Abersytwyth Jan 15-19 1938.



Marine Terrace, Aberystwyth. Oct. 1927.



1901-1903 Aberystwyth Promenade being filled in

The choices

1. Retreat (passive or active)
2. Hold the line (hard or soft)



Passive Retreat

Norfolk,
England

Beachy Head, England 1985



2001 shoreline

Passive Retreat

Passive Retreat North Carolina



Passive Retreat, Benbecula

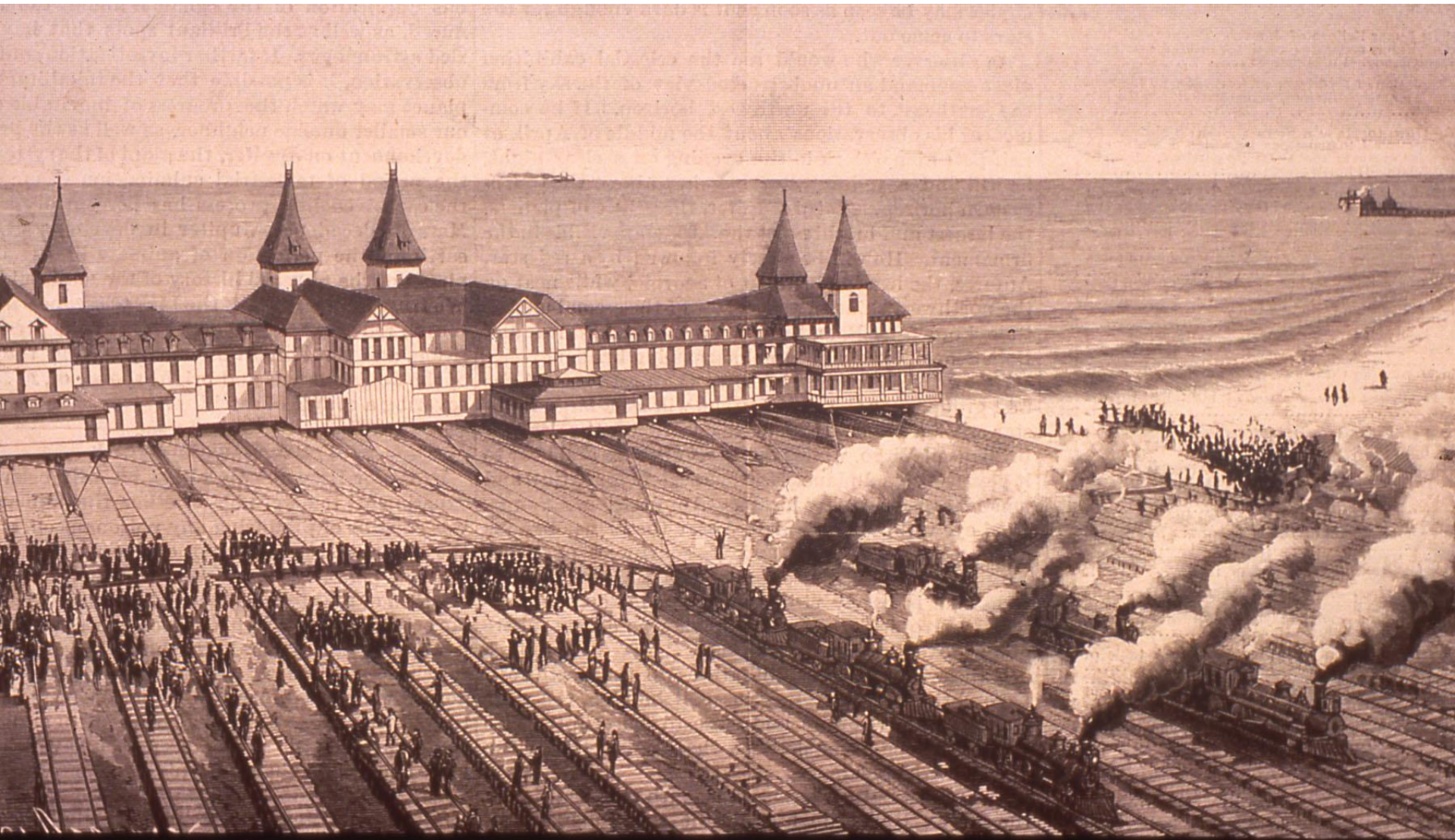




Active Retreat: Cape Hatteras, NC



New Jersey



Retreat

Advantages

- Responds to sea-level rise
- Preserves the beach
- Saves shoreline stabilization costs
- Can Preserve Buildings
- Sustainable

Disadvantages

- Politically difficult
- Potentially costly
- Loss of land/property



Hard Defences

Japan

New Jersey



Porthcawl, Wales



Hard Defences

Advantages

- Protects Property

Disadvantages

- Destroys beaches

- Damages ecosystem

- Destroys scenery

- Cost of installation and maintenance

Hayling, England



Soft Defences

England

Atlantic Beach, New Jersey



1/18/2003 4:21pm

Soft Defences

Advantages

- Maintains beach
- Can Preserve Buildings

Disadvantages

- Cost of emplacement and maintenance
- Source of Sand
- Damaged ecosystem
- More sand needed as sea level rises

Shoreline Management in Northern Ireland

“The Bateman Formula” Planning Guidance Marine Licensing

No Strategic Approach

*Eventually the whole coast will be rimmed with concrete
-not because we decided it should be that way,
but because nobody decided it shouldn't be.*

Ulster's Armoured Shorelines





























Mourne Path







Cloghy's Wall of Shame

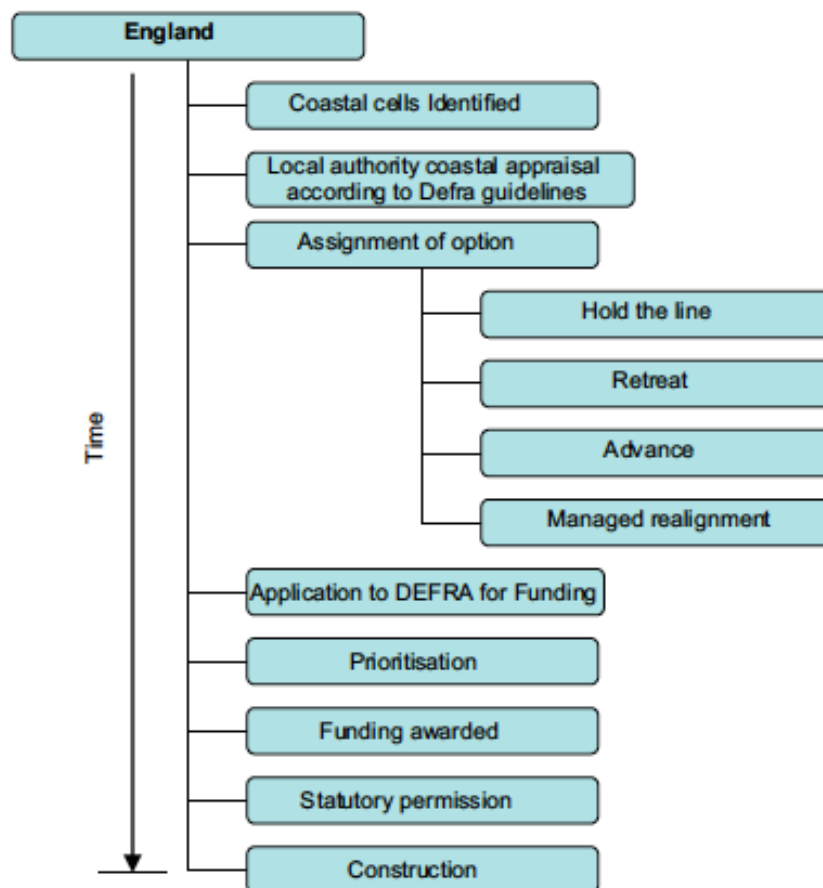


Retreat is a viable (indeed essential) alternative

To facilitate it:

- 1. Rolling Easements**
- 2. Buyouts**
- 3. Legislation**
- 4. Refusal of permission to defend**
- 5. Planning**

Shoreline Management Plans (SMPs)





Northern Ireland
Assembly



Queen's University
Belfast



The Open
University



Ulster
University

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