



ROYAL HASKONING

How do we manage a changing coastline?



Greg Guthrie

thinking in
all dimensions



ROYAL HASKONING

Energy



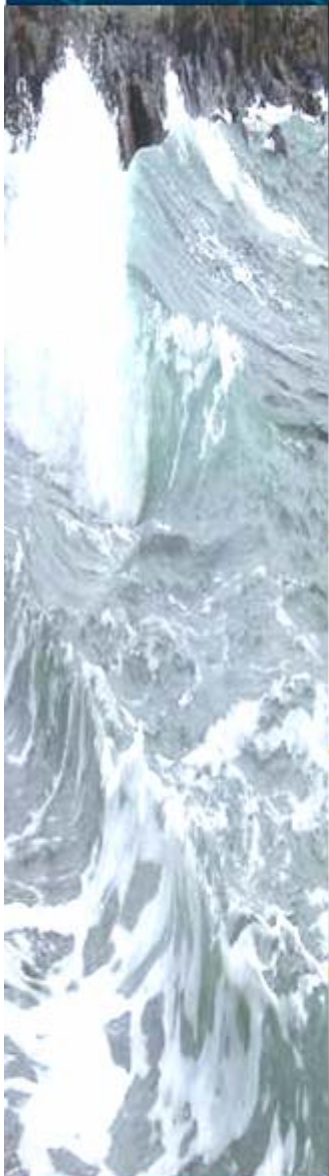
Width



Interaction



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Salt marsh

Dunes

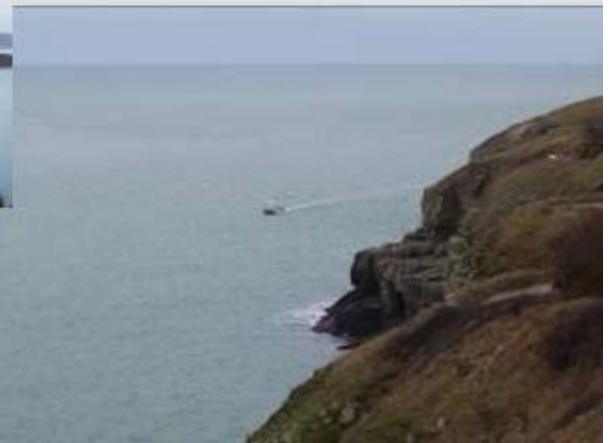
Open beaches

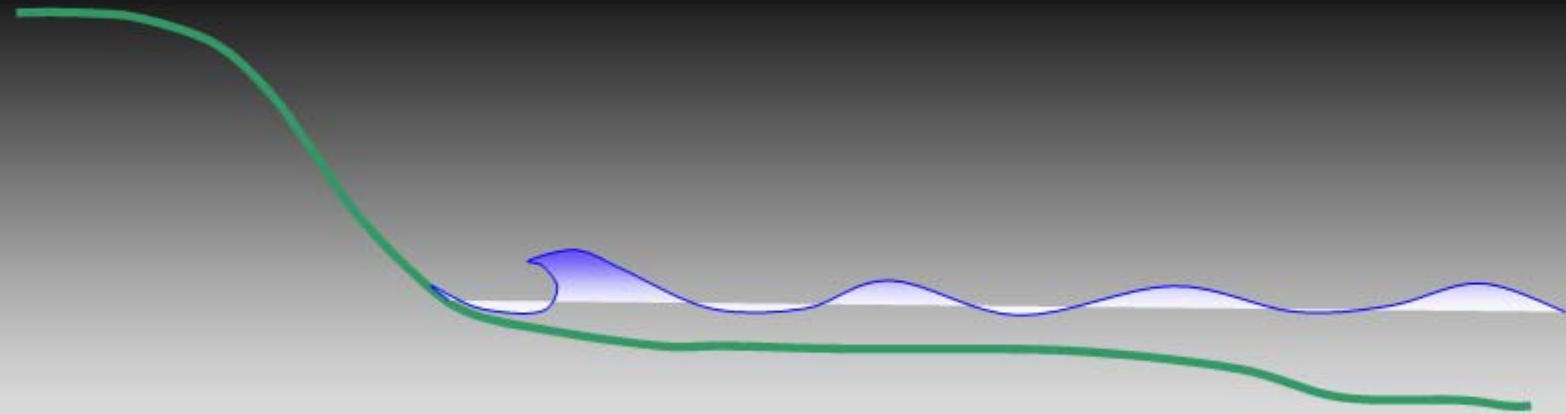
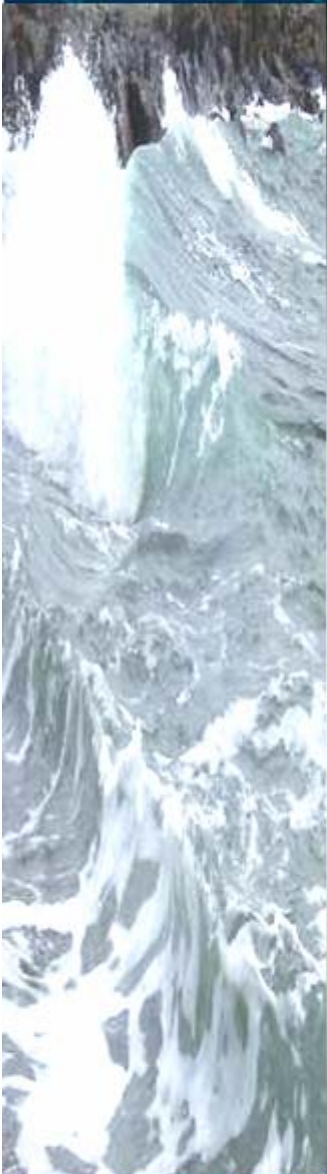
Controlled beaches

Coastal slopes

Cliffs

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Increasing Energy

Increasing need for width

Increasing strength and more effort



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Where we have width....



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We need to
preserve it





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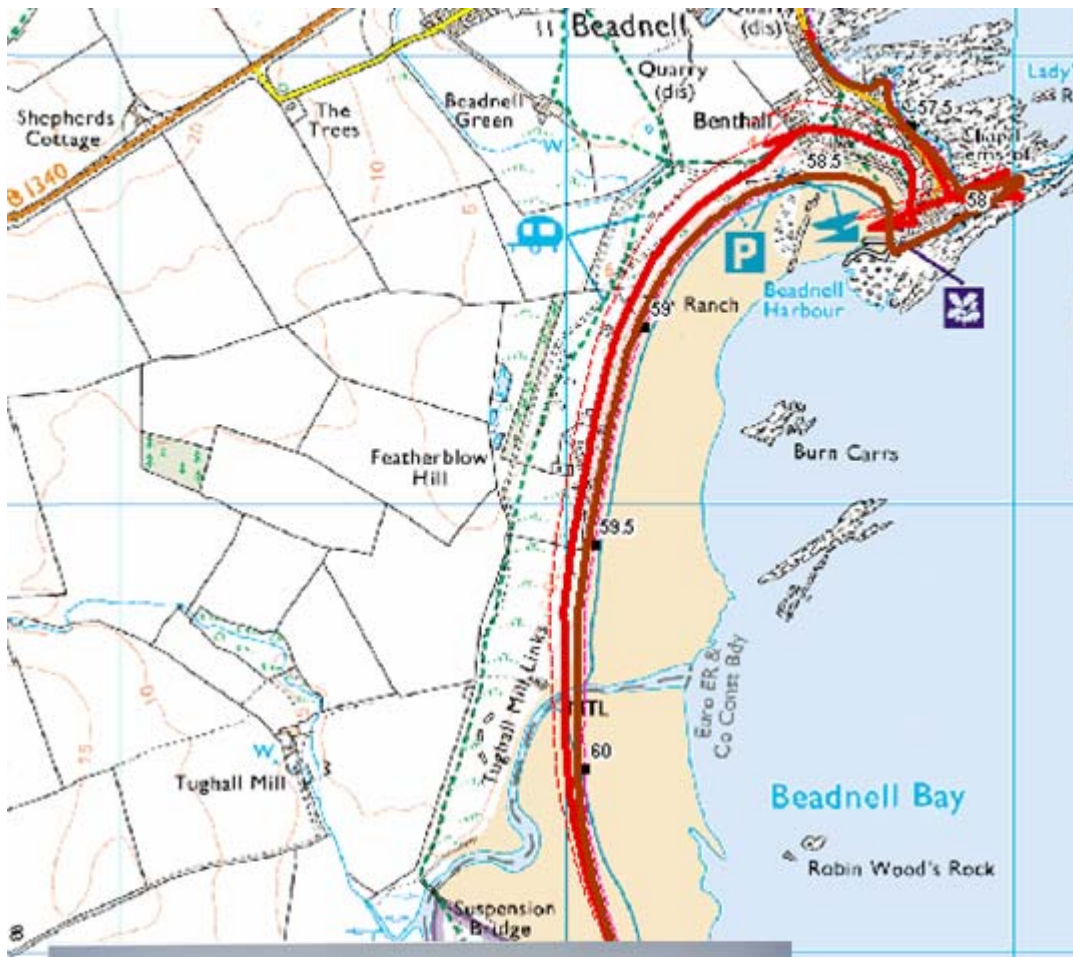
Where we have little



We may need
to create it

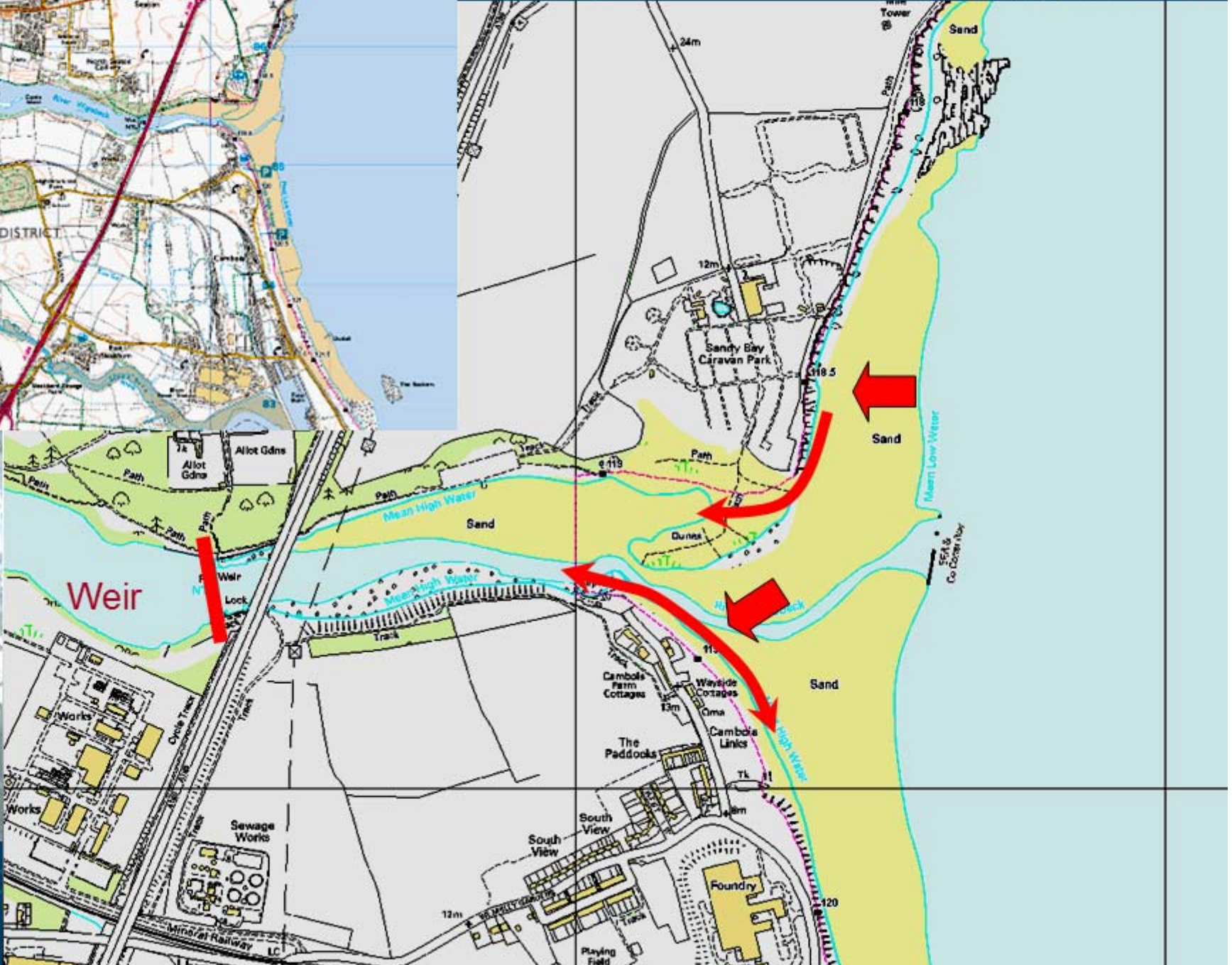
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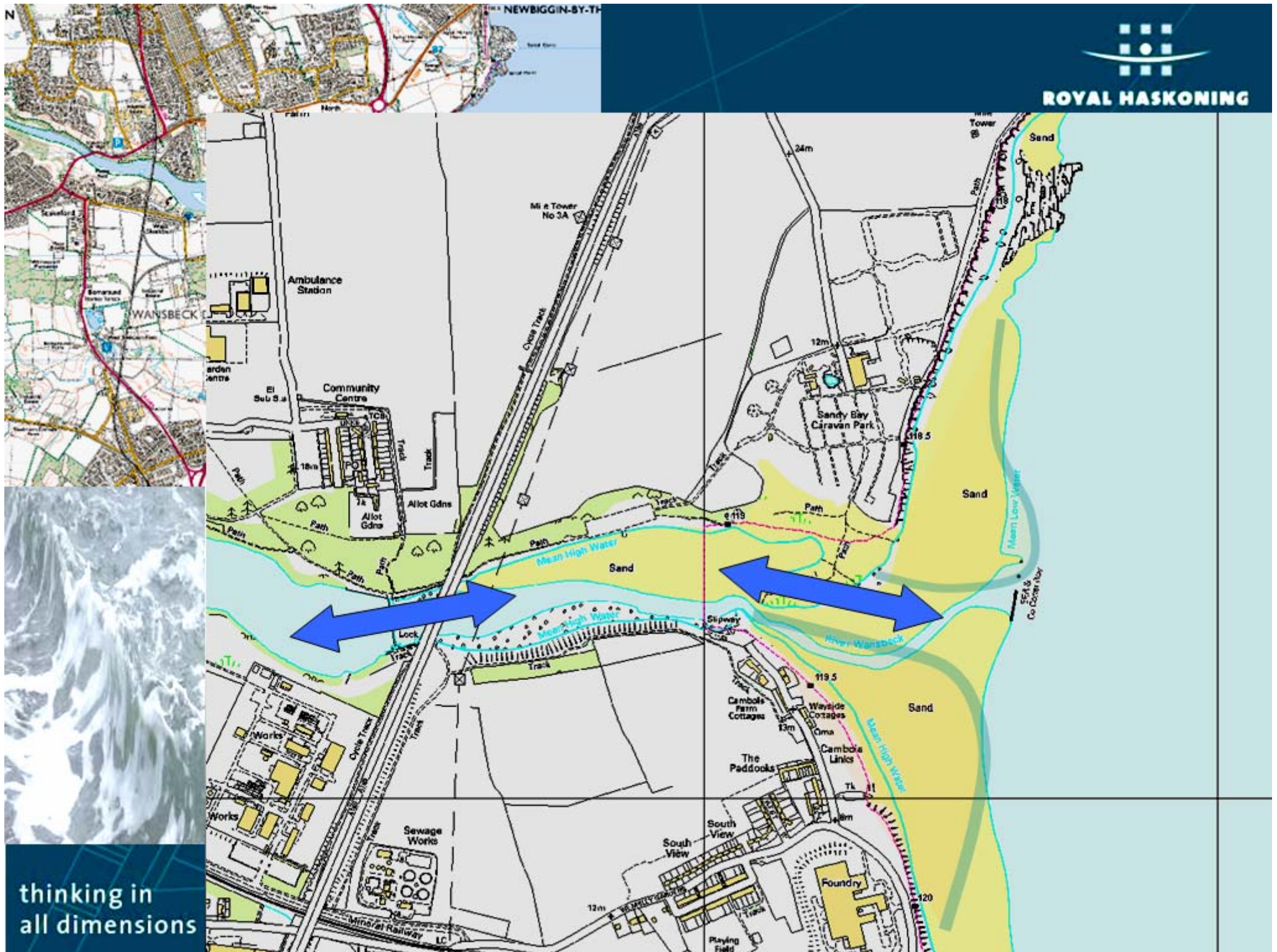
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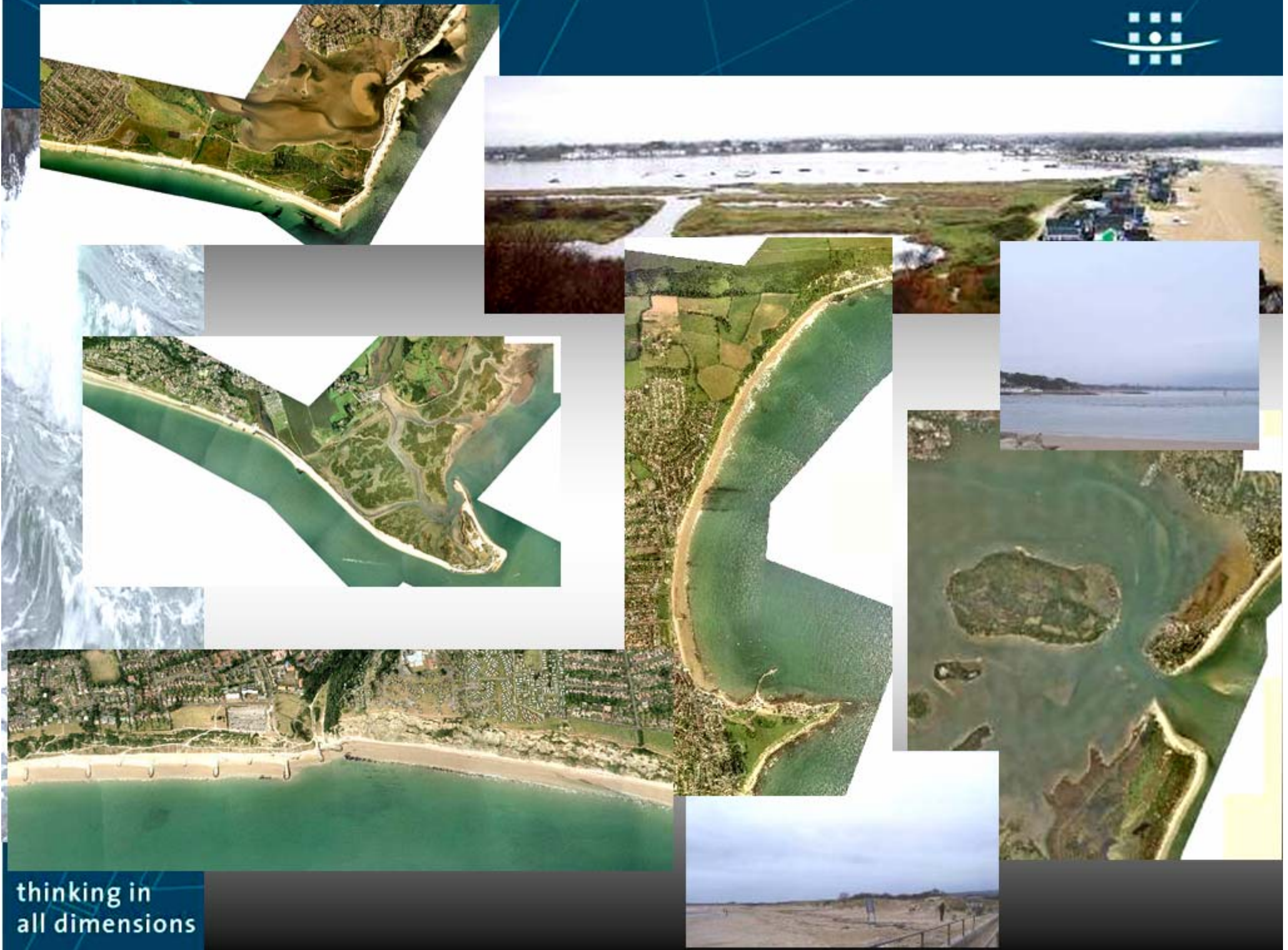


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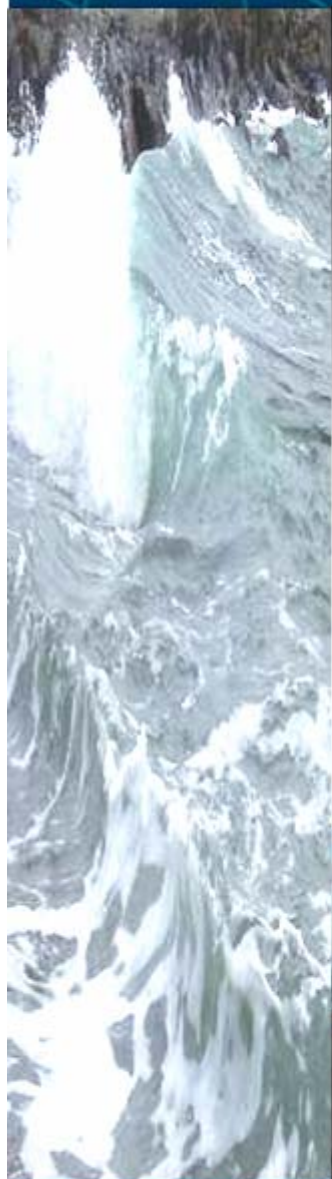


thinking in
all dimensions



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How do we manage a changing coastline?



Changing things

Moving back

Planning space

Dissipate energy



Creating width

Maintaining control



Widen the line



Advancing now to retreat later



Adaptable defence systems



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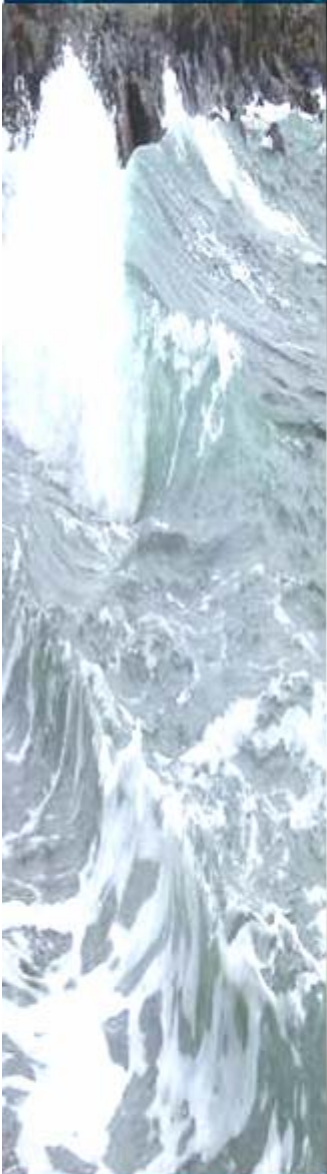
Deciding what we
do need



thinking in
all dimensions



Deciding what we
need to do
without



**Meeting the needs of
today without
compromising the
future**

**But sometimes we
have what we have
for a very good
reason.**

- Minimising future problems
- Passing on a positive inheritance

