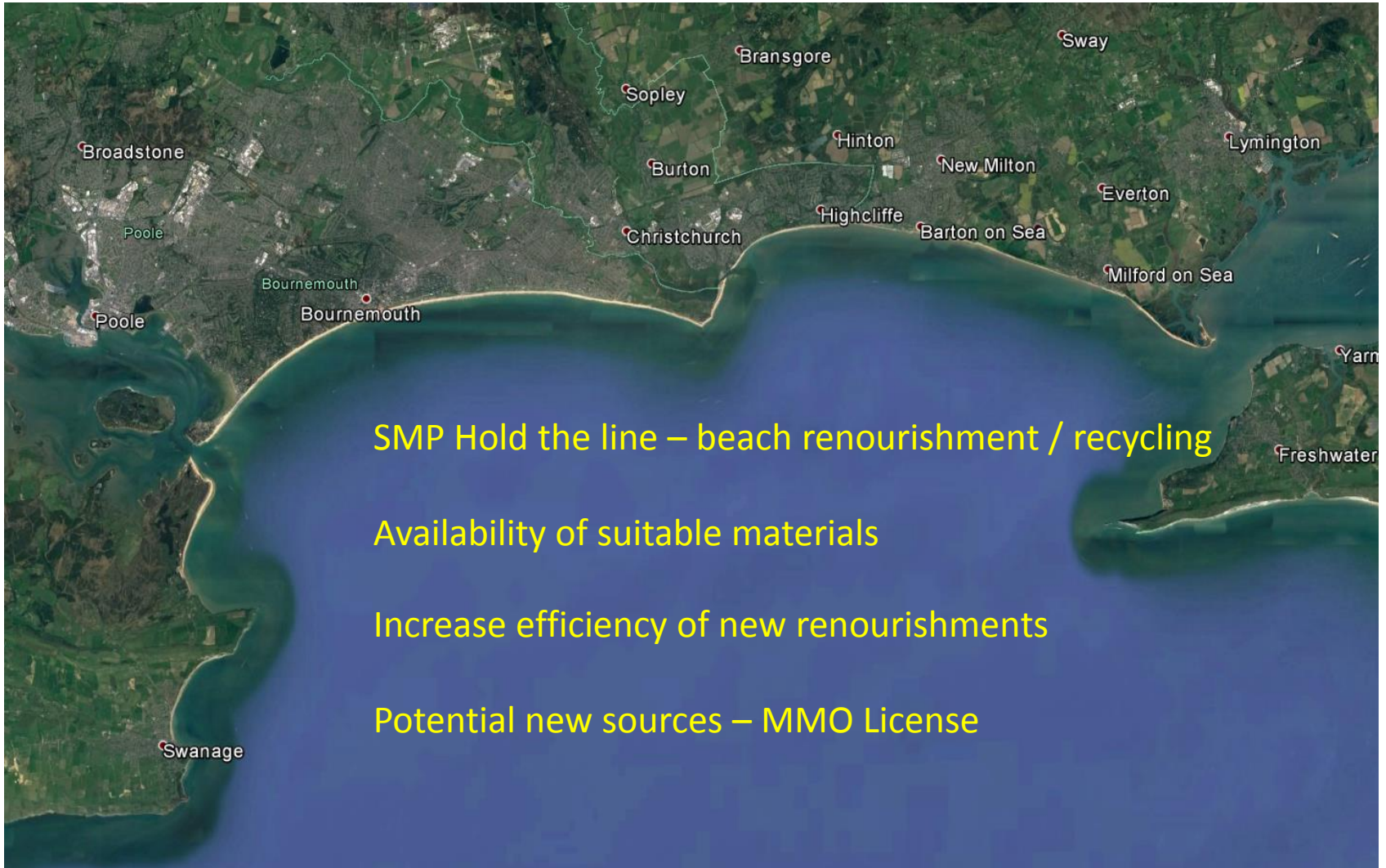


Poole and Christchurch Bays – Lead in Studies for a  
SMP wide Beach Management Plan  
or  
SMP Wide BMP



# SMP Wide BMP



SMP Hold the line – beach renourishment / recycling

Availability of suitable materials

Increase efficiency of new renourishments

Potential new sources – MMO License

# Poole and Christchurch Bays – Lead in Studies for a SMP wide Beach Management Plan or SMP Wide BMP

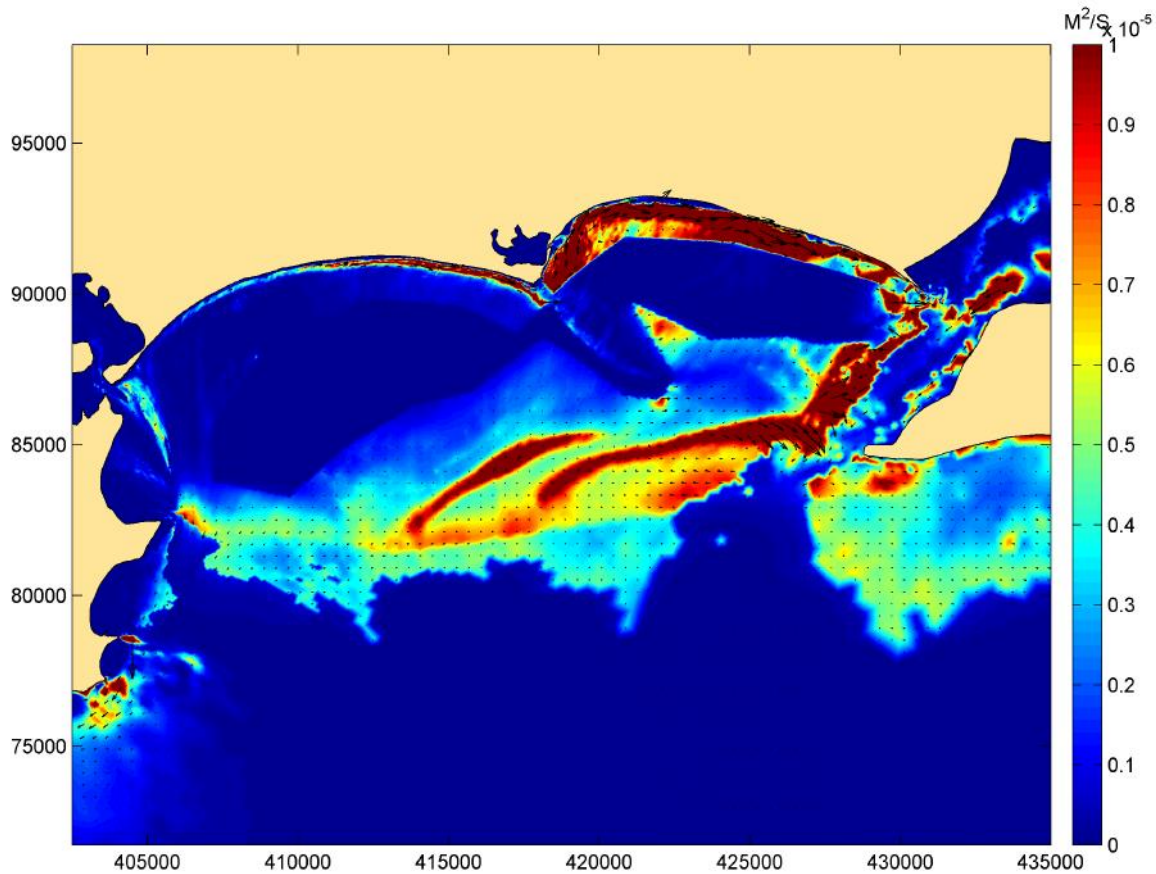
First phase

Commissioned HR Wallingford to undertake modelling study to investigate sediment transport pathways in the bays.

Based on existing model and existing data much of which supplied by the CCO.

Validate model using the available data to see how good the results are, with a view to improving the models accuracy.





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5/26/2017

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First phase modelling results of sediment transport rates using available data.

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Second phase further model improvements are needed:

1. Run whole year to get long-term residual transport
2. Higher resolution near beaches, Dolphin Sands and Solent
4. More detailed seabed composition map/ Spatially varying bed roughness
5. Spatially varying wind field
6. Sea bed level changes Dolphin Sands, Shingles Bank
7. Better current measurements / wave direction variations over the area





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More data needed:

1. Current measurements

Hurst Spit, Christchurch Ledge; the location where Shingles Bank and Dolphin Bank meet; Location where Dolphin Bank meets Needles

2. Wave direction variations over area

AWAC (Acoustic Wave and Current Profiler) deployment this Autumn

3. Bed level changes

Dolphin Sands, Dolphin Banks and the area just south of the Needles

Future bathymetric surveys



# Poole and Christchurch Bays – Lead in Studies for a SMP wide Beach Management Plan or SMP Wide BMP

The Poole and Christchurch Bay Shoreline Managements Plans process has designated the policy of “hold the line” at a number of beach sites from Hurst Spit to Swanage. These beaches are all subject to erosion so the strategic implementation of this policy has been identified in some cases as beach replenishment with coast protection structures. Some of these sites have had re-nourishment or re-cycling operations in the past and will need further re-nourishment in the future as the erosion process continues.

Over the years that the management of these beaches has taken place the costs of the works has risen whilst the availability of material, which is of the appropriate particle size for each particular area has reduced.

Against this background of rising costs and reduced availability of material, an efficient method of identifying and utilising the appropriate material that is available for each beach is required.





# Poole & Christchurch Bays SMP Policy Summary Map

