

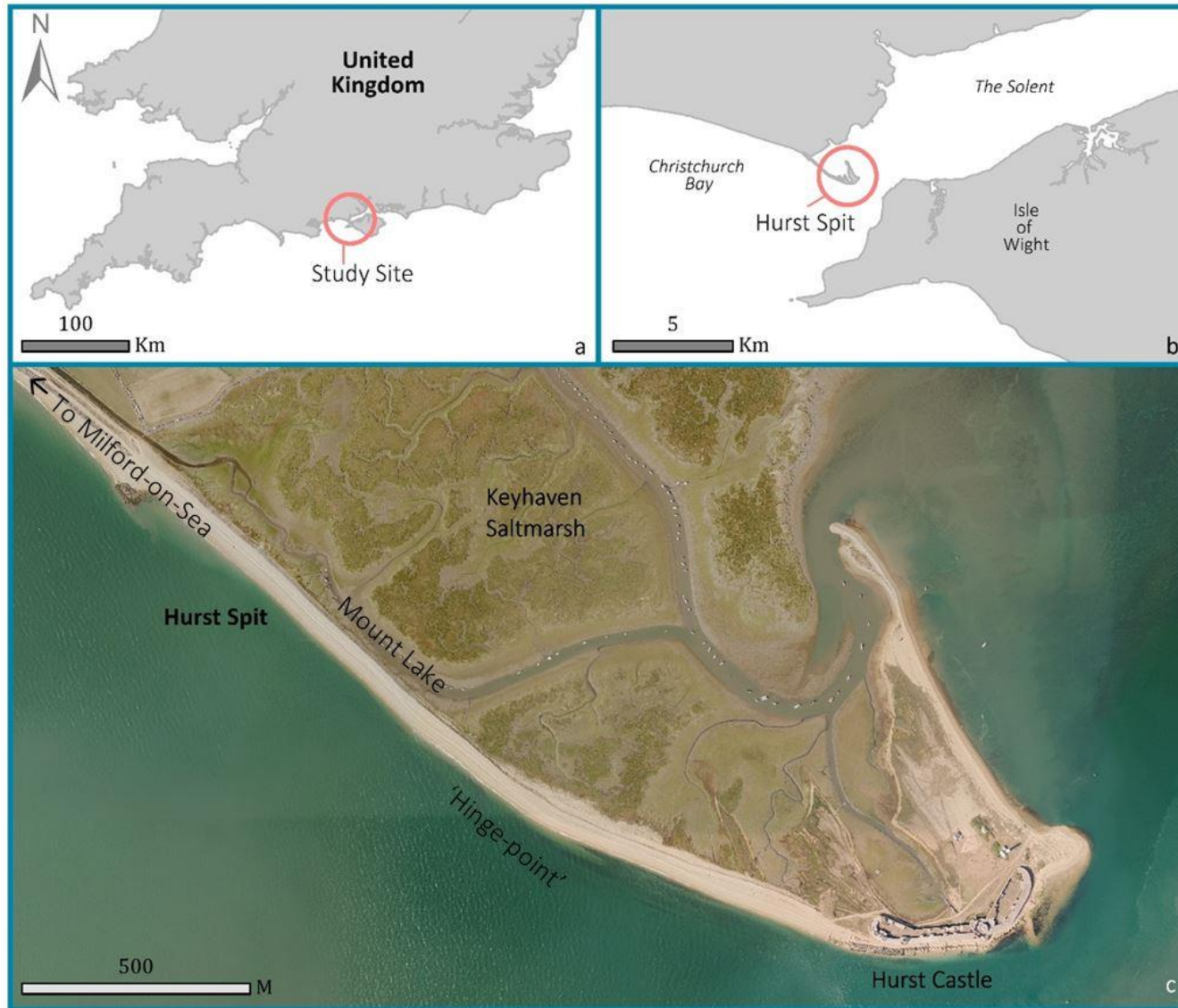
Migration of Gravel Barriers over a Consolidating Substrate- Implications for Coastal Management

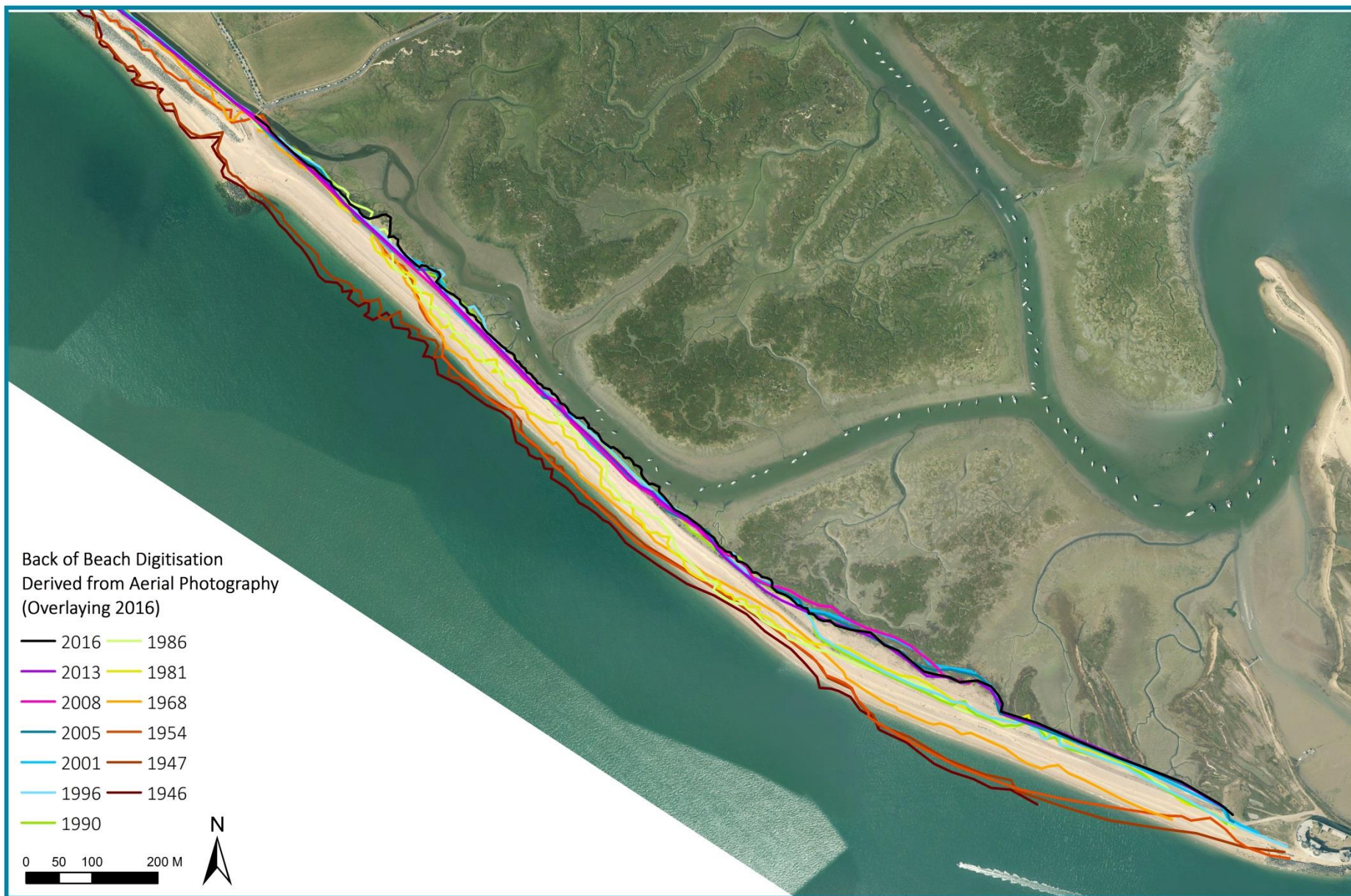
Lauren Burt

Graduate Coastal Engineer

New Forest District Council

Hurst Spit – Study Site

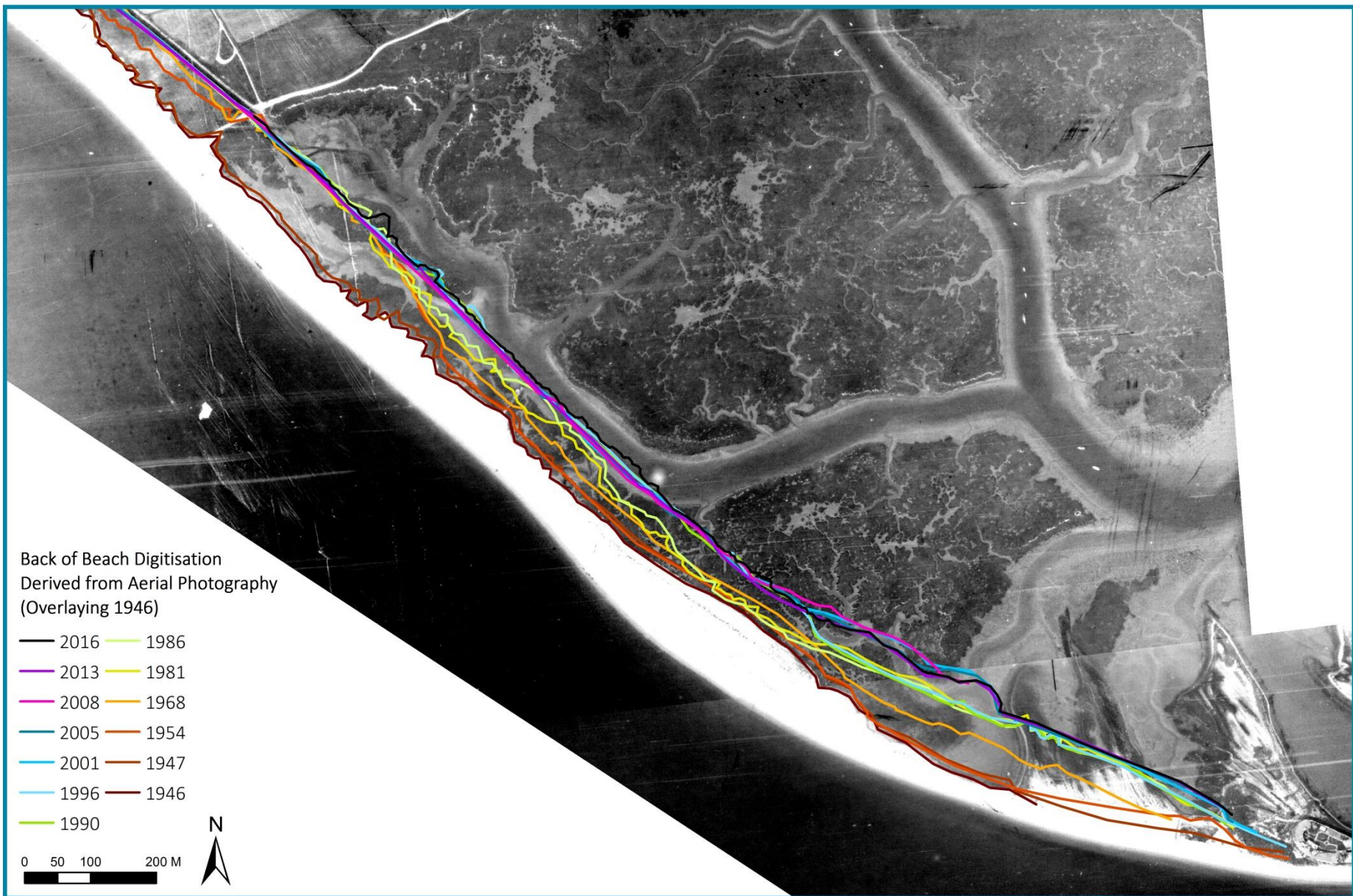




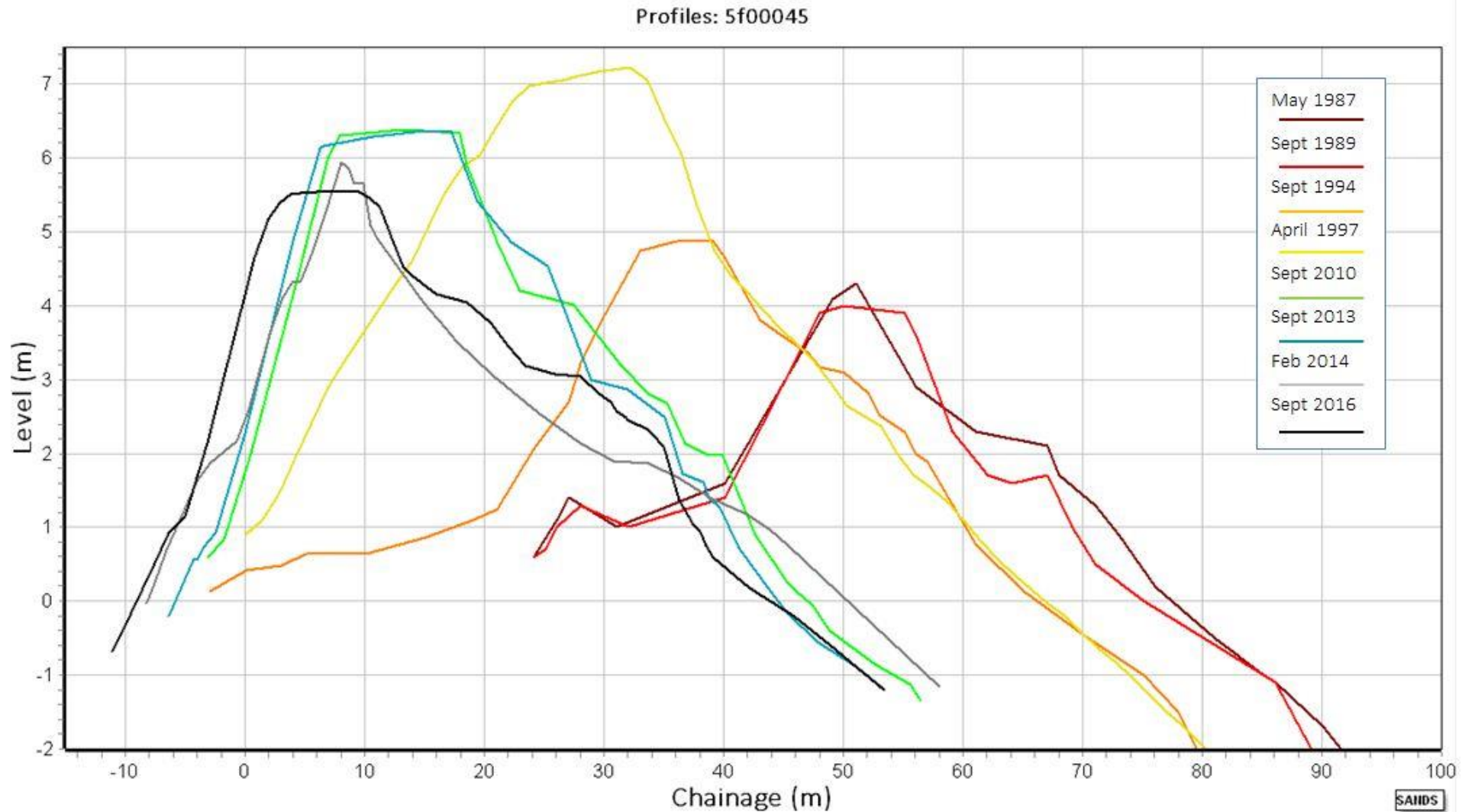
Back of Beach Digitisation
Derived from Aerial Photography
(Overlaying 1946)

| | |
|--------|--------|
| — 2016 | — 1986 |
| — 2013 | — 1981 |
| — 2008 | — 1968 |
| — 2005 | — 1954 |
| — 2001 | — 1947 |
| — 1996 | — 1946 |
| — 1990 | |

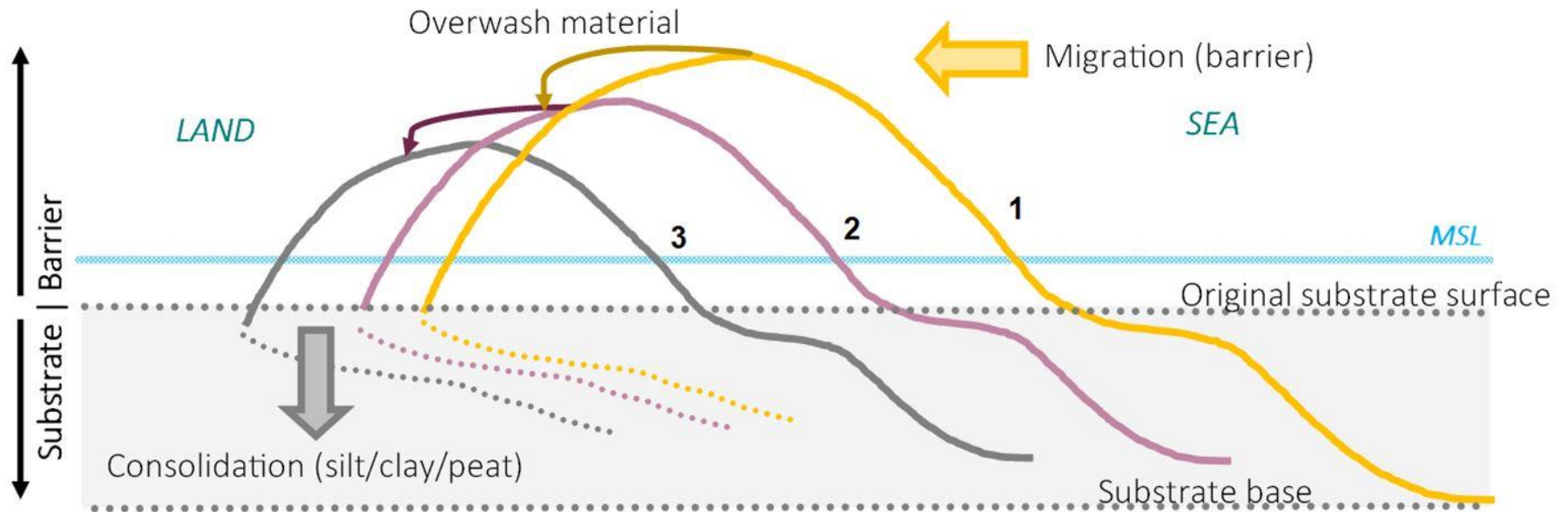
0 50 100 200 M



Hurst Spit – Study Site



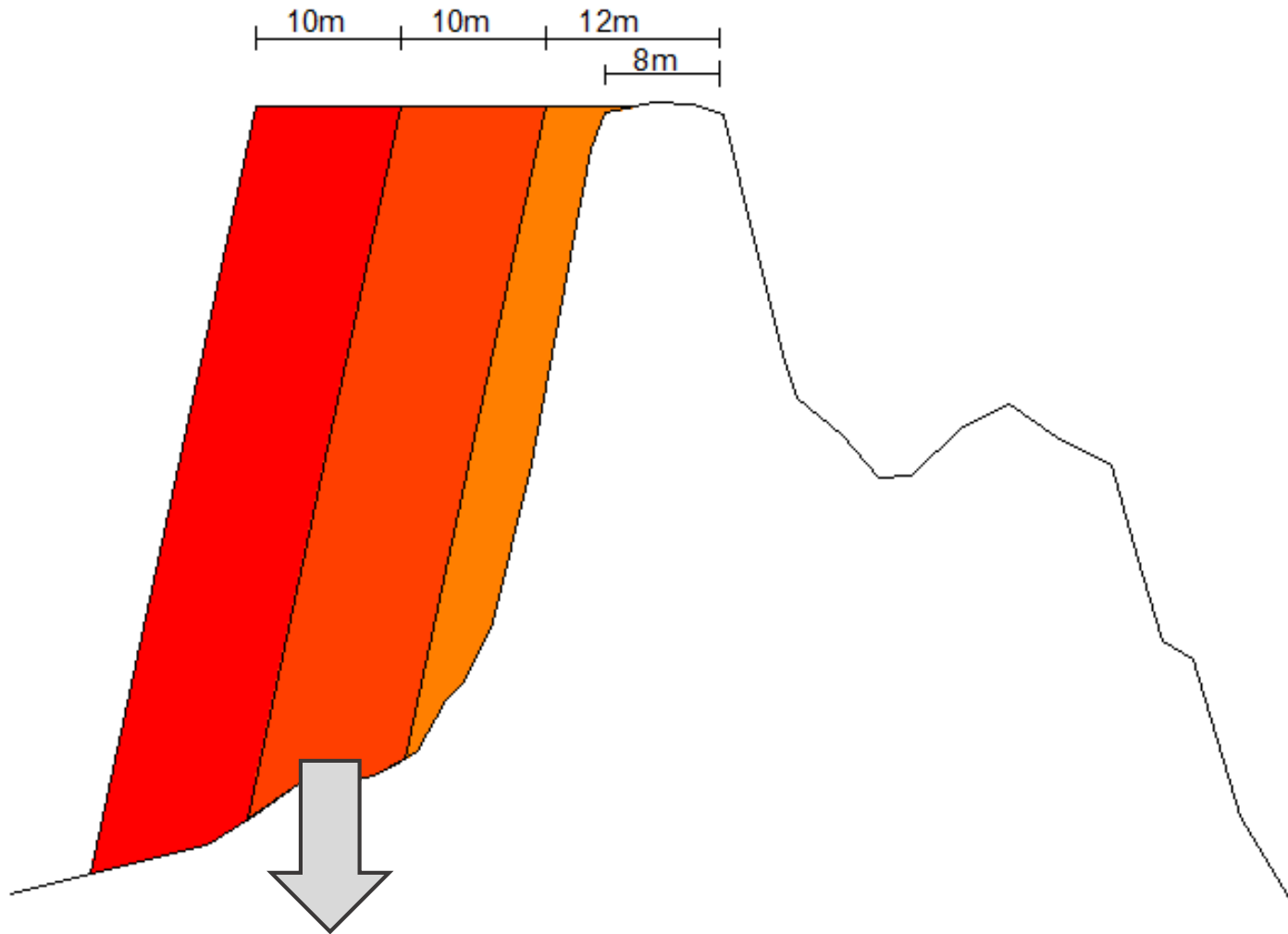
Barrier Dynamics



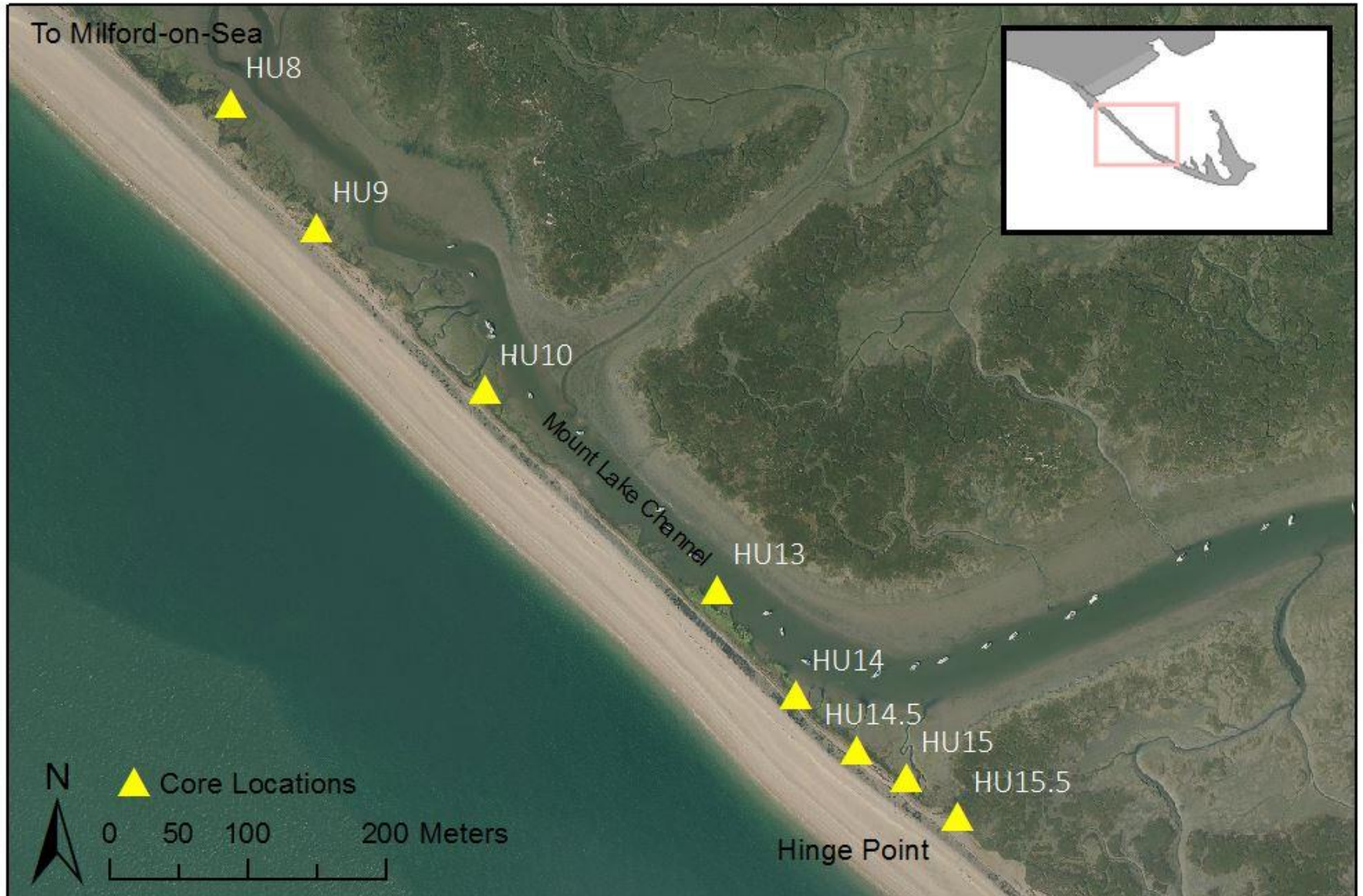
Beach Recharge



Beach Recharge



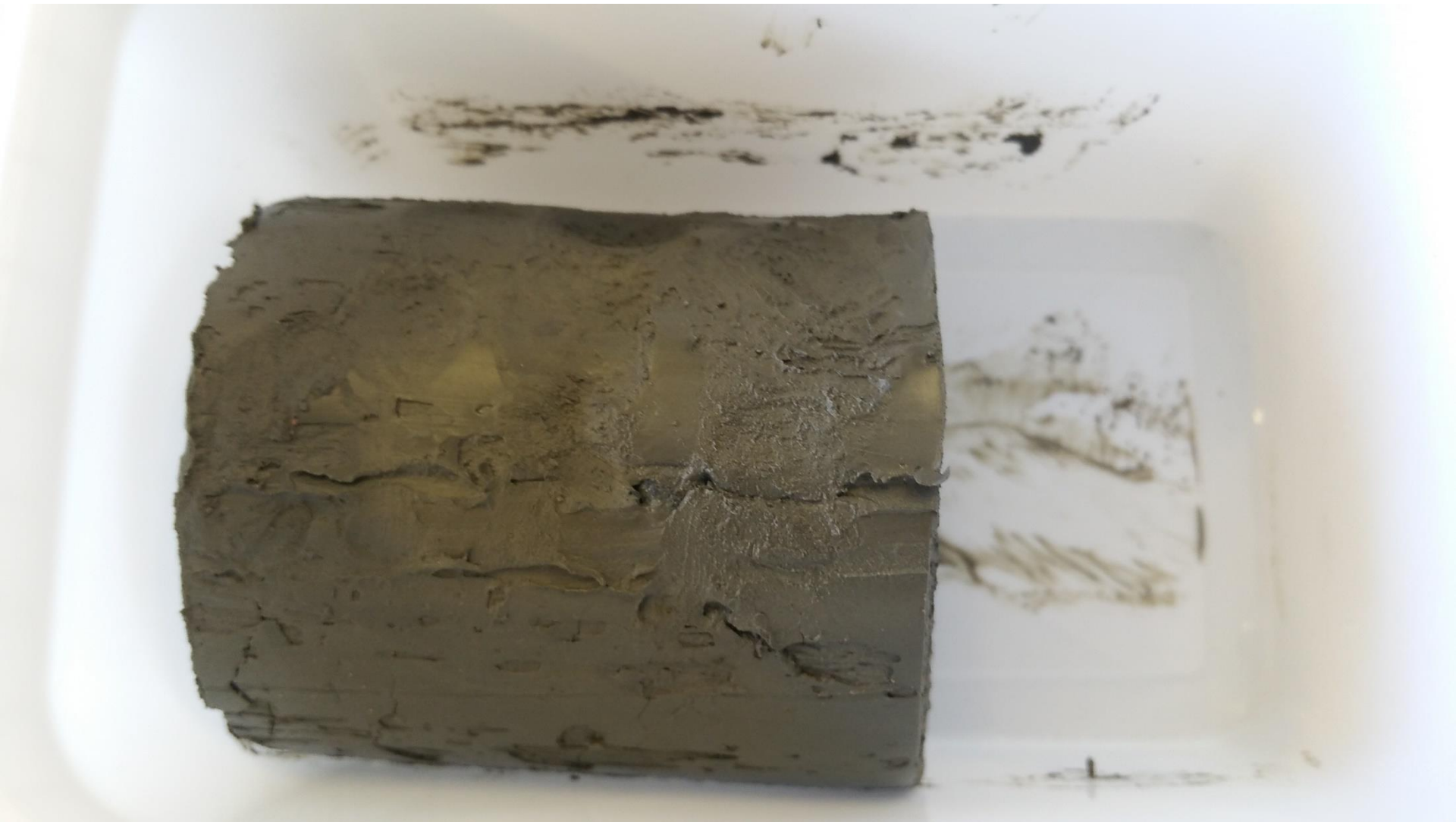
Hurst Spit- Coring Locations



Hurst Spit – Coring



Substrate Sampling



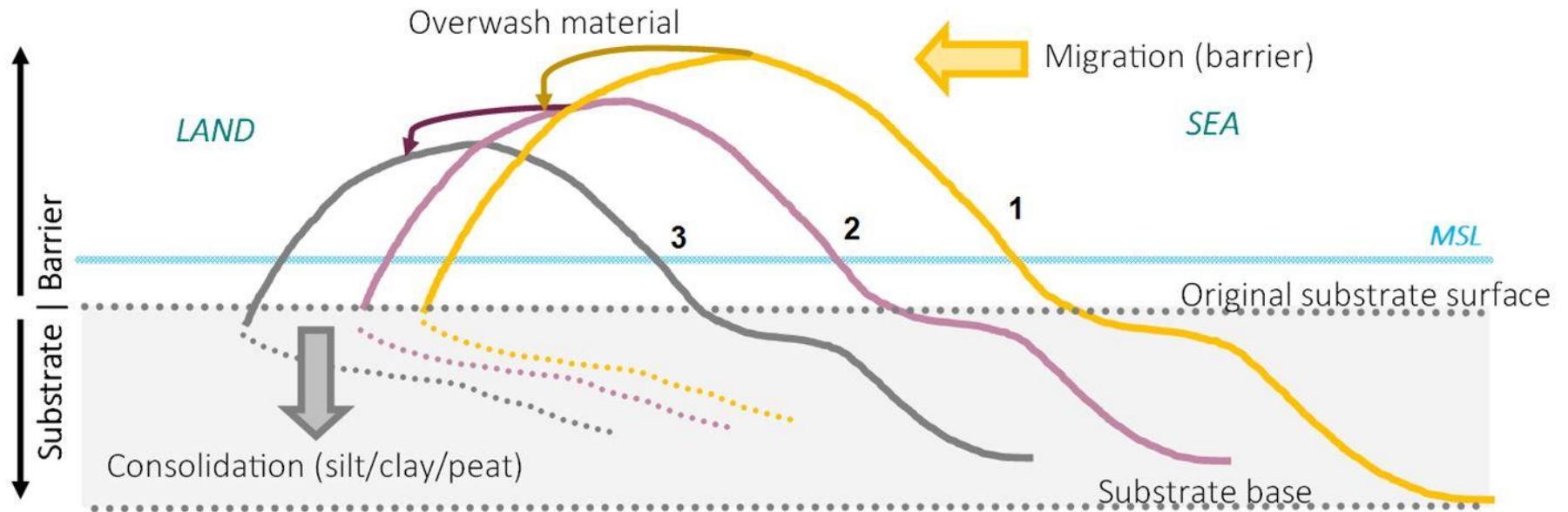
Sediment Analysis



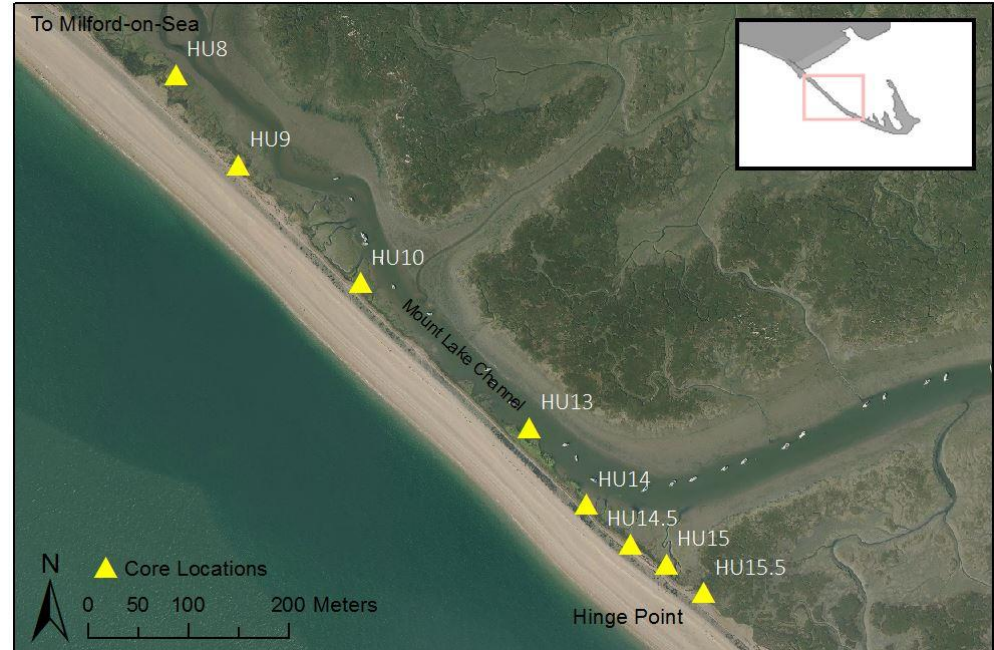
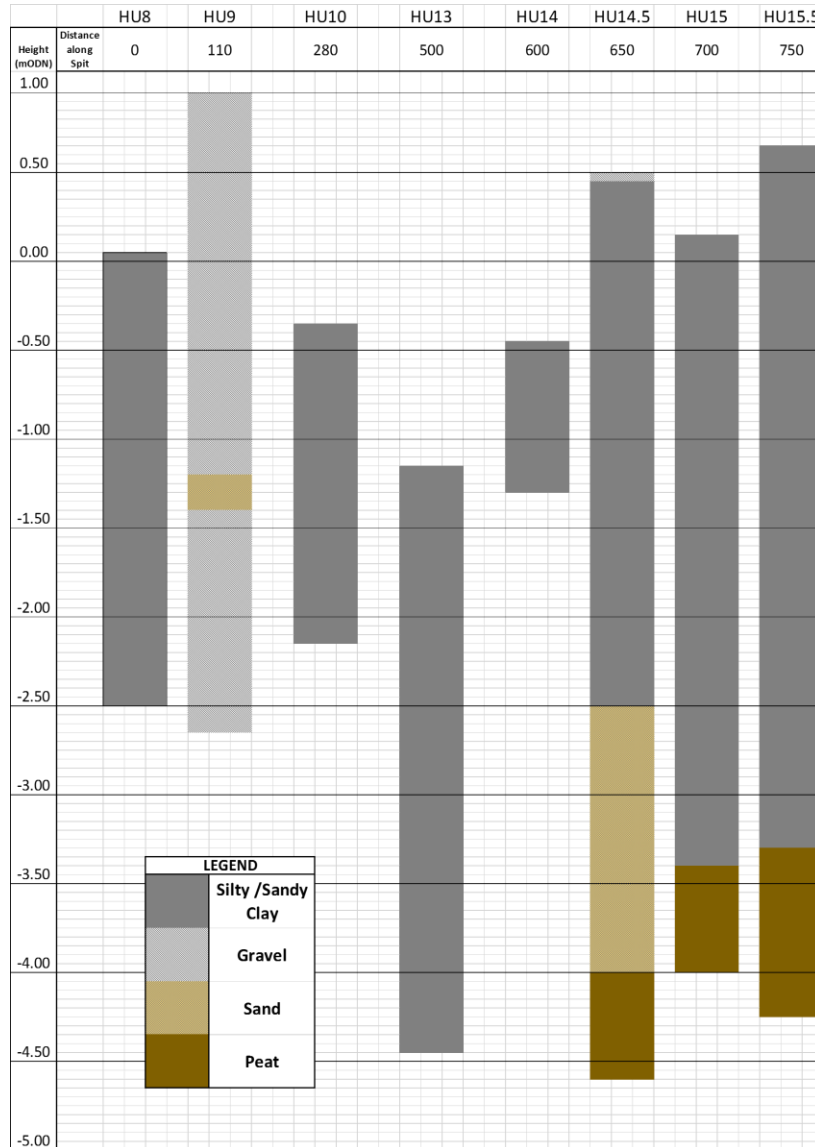
Geotechnical Analysis



Barrier Dynamics

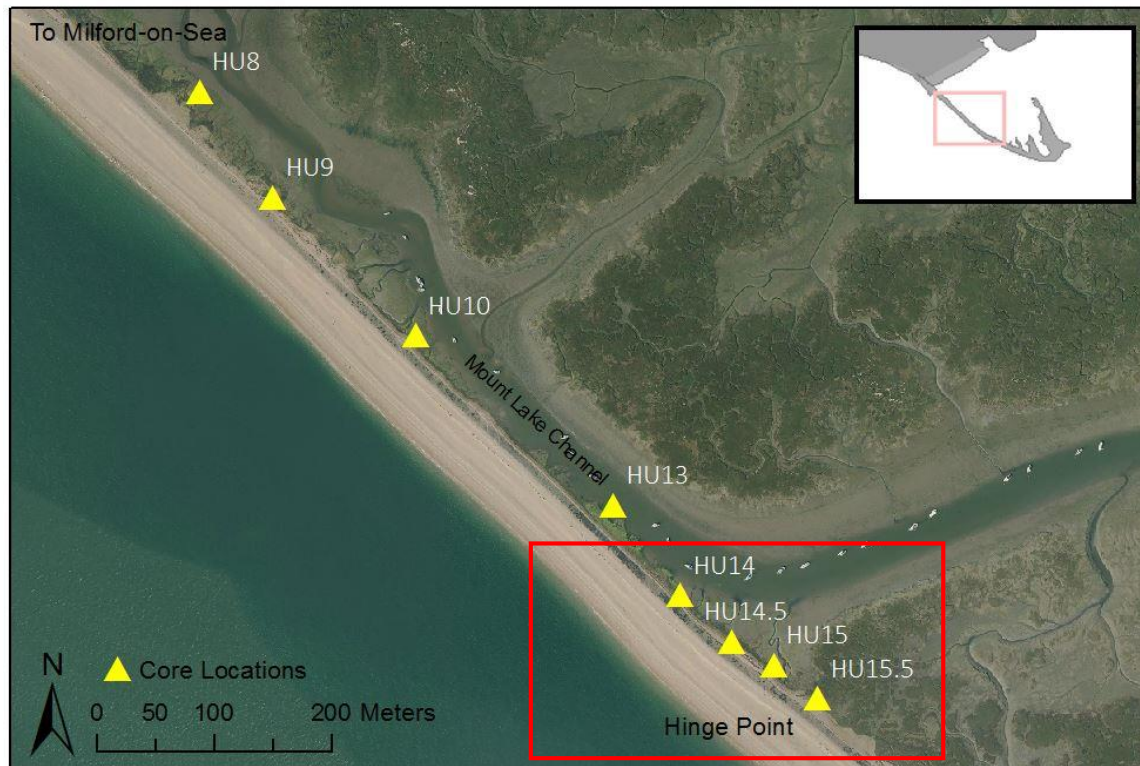


Key Findings



Key Findings

| Location | Thickness of substrate (m) | Height of beach (m) | Equivalent load (kPa) | Consolidation range (m) | Average consolidation (m) |
|----------|----------------------------|---------------------|-----------------------|-------------------------|---------------------------|
| HU8 | 2.5 (0 to -2.5m) | 5.6m (0 to 5.6m) | 90 | 0.34-0.64 | 0.49 |
| HU13 | 3.5 (-1.0 to -4.5) | 6.6 (-1 to 5.6m) | 106 | 0.52-1.00 | 0.76 |
| HU15 | 4.0 (0 to -4.0) | 5.5 (0 to 5.5m) | 88 | 0.56-1.06 | 0.81 |





Any Questions?

