

# CMU 3/1 - QUARRY JETTY

## Description and issues

- Eroding coastline.
- Important infrastructures running behind.



RAYNES  
JETTY

A55

REVETMENT

RAILWAY

A55

CEMEX COLWYN  
BAY CONCRETE  
PLANT

Google earth



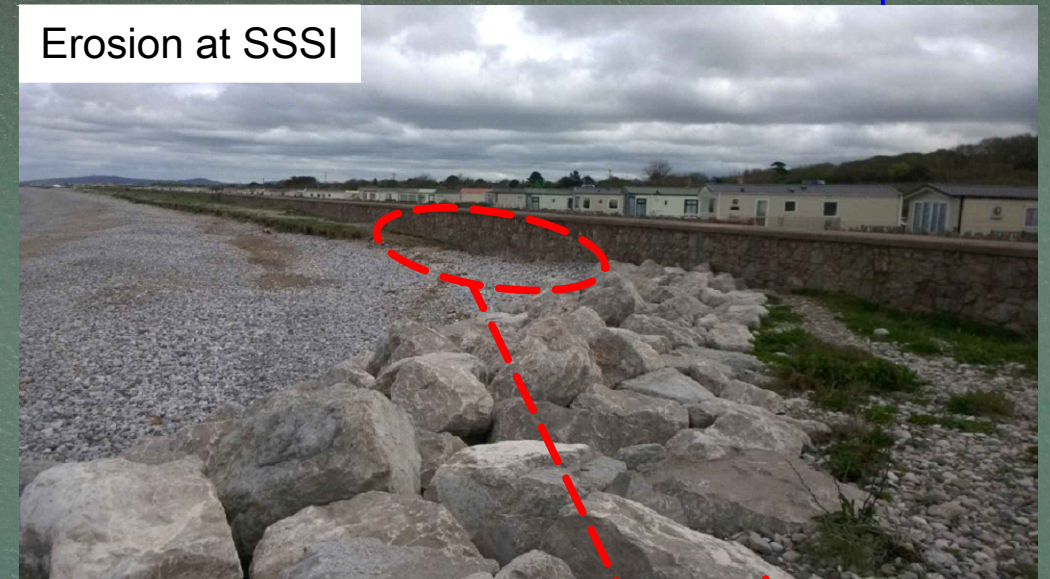
# CMU 3/3 LLANDDULAS WASTE TIP

## Description and issues

- Erosion of SSSI exacerbated by end effect of revetment.
- Need to maintain protection, as failure here could lead to extensive erosion and risk of contamination as well as exposure to the railway line and A55 behind.



Erosion at SSSI



Rock protection at Llanddulas Waste Tip



THE BEACH  
HOLIDAY PARK

RAILWAY

A55

SSSI

CASTLE COVE  
HOLIDAY PARK

Google earth



# CMU 3/2 B - LLANDDULAS BEACH

## Description and issues

- This area floods significantly under extreme conditions.
- The walkway is particularly affected by wave overtopping under extreme events.



THE BEACH  
HOLIDAY PARK

A55

RAILWAY

Café

Land behind,  
where the café  
is located, is at  
risk of flooding.

Google earth



# CMU 3/2 A - LLANDDULAS REVETMENT

## Description and issues

- This area floods significantly under extreme conditions.
- The low point and narrow valley cause water to be focused towards the carpark.
- Flood water flows under the A55 bridge.



A55 Bridge

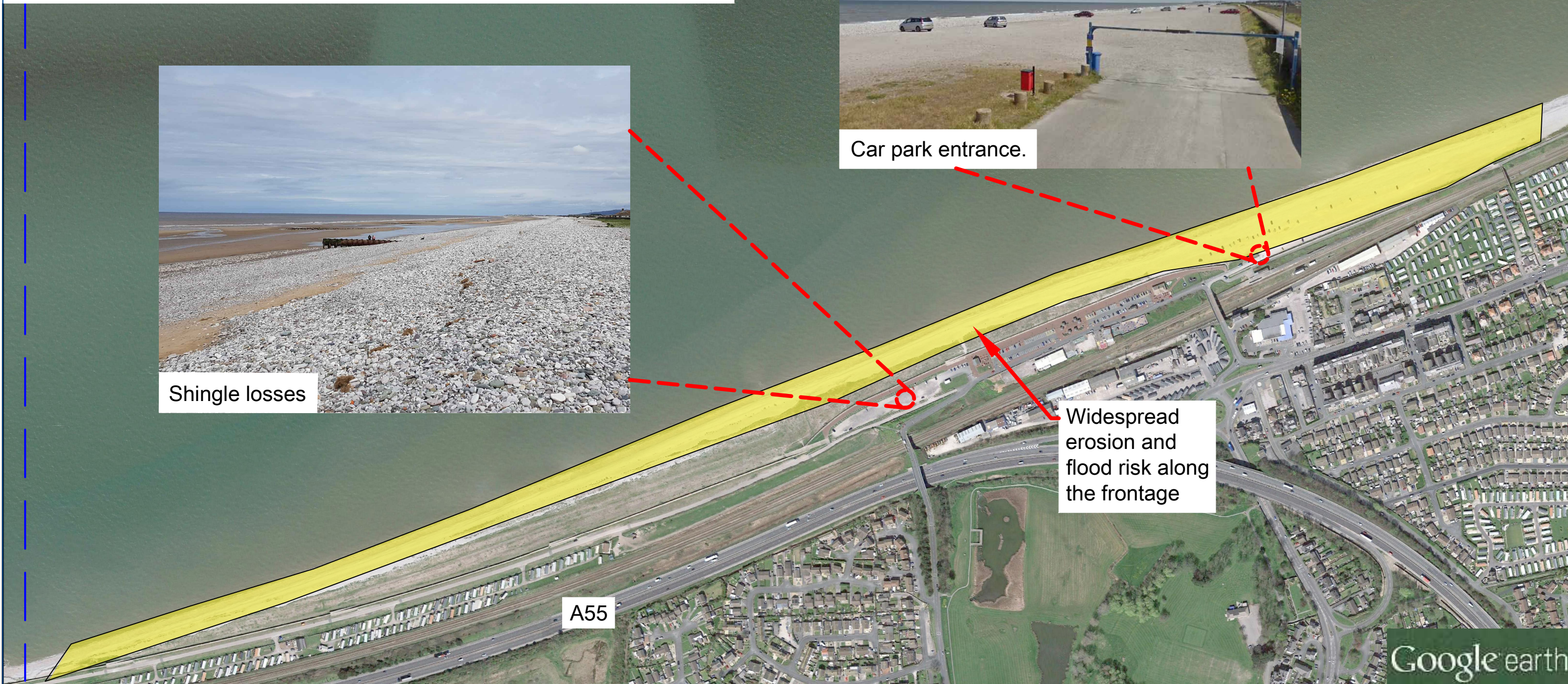
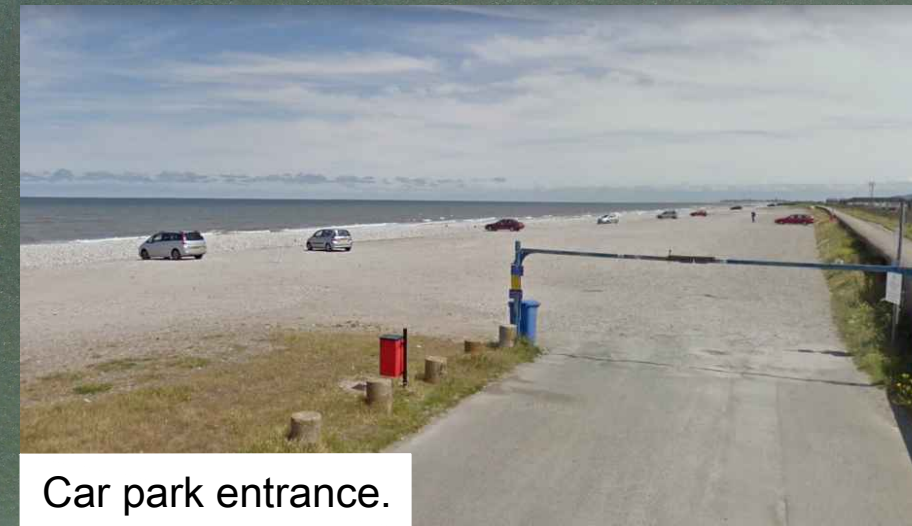
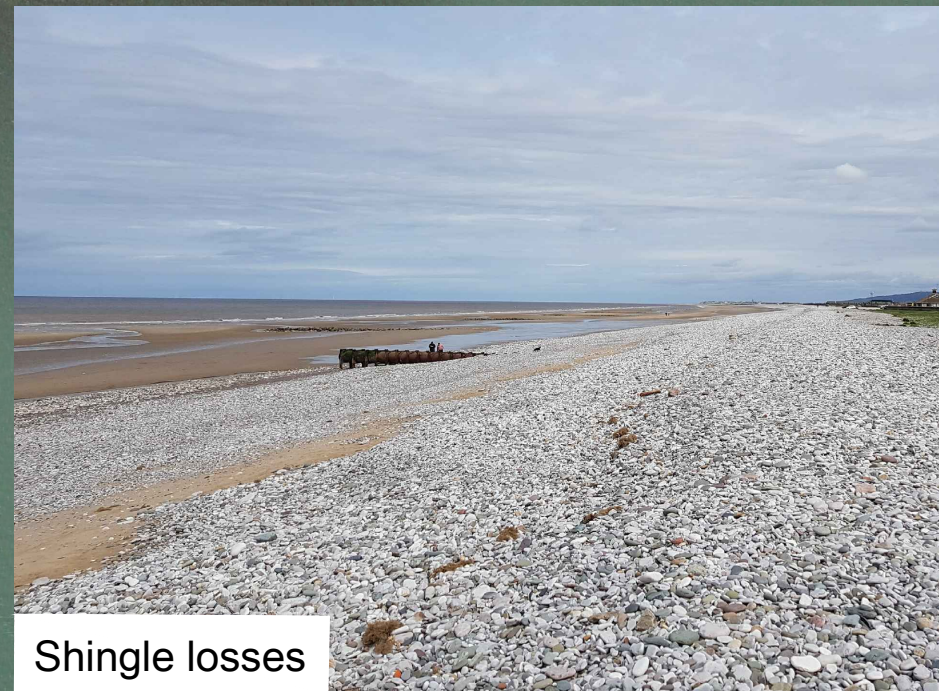




# CMU 3/4 - PENSARN BEACH

## Description and issues

- Pensarn Beach presents similar challenges as Kinnel Bay in-relation to erosion and overtopping.
- This stretch is particularly suffering the effect of coastal squeeze.
- Presence of custom car parking on the beach.





# CMU 3/5A - BELGRANO BEACH

## Description and issues

- Low-lying and strikingly sparse region, with a distinct lack of shingle ridge.
- To the west of the Towyn embankment, the railway line is perilously close to the beach, with little protection, provided by an old seawall, circa 100 years old. This is a key area for concern





# CMU 3/5 B - TOWYN REVETMENT

## Description and issues

- The eastern end of the revetment experienced significant overtopping in December 2013.
- Even though the seawall seems quite high, as shown in the photographs, the beach/revetment is fairly steep and there is little space to dissipate wave energy due to the depleted shingle beach.
- The remaining stretch of the revetment provides enough protection against overtopping



Depleted shingle beach in front of the revetment.



Google earth



# CMU 3/5 C - KINMEL BAY BEACH

## Description and issues

- High shingle beaches susceptible to significant levels of overtopping, particularly under climate change.
- The shingle bank in front of Kinmel Bay has significantly been eroded since November 2016.



Erosion of shingle bank



Flood event in Dec 2013



Area that is susceptible to significant level of overtopping

Car park.  
Most vulnerable point.  
If water overtops the seawall or flood gate, it easily can flood the town

RIVER CLYWD

MARINE LAKE RHYL

Google earth