

BA11: Sheerness

What is in the Benefit Area

BA11 covers the Minster Cliffs and Sheerness, round to Queenborough. The cliffs are at risk of erosion and mainly provide a tourist attraction, with some residential property on top of the cliffs. The rest of the area is a key industrial and residential area and includes the nationally important Sheerness Port. The defences in the area mainly consist of walls and embankments, but there are some sections of sheet piled walls around the Port. The current minimum SoP of the defences is for a 5% AEP event, and the defences have an average residual life of 20 years. The main risk in the area is from coastal flooding, but there is a risk of erosion in BA11.1 (along Minster Cliffs).

What is at risk?

- Roads including A250, A249, B2008 and B2007
- Sheerness-on-Sea and Queenborough train stations
- Sheerness Port
- Queenborough Marina and tidal gate/barrier
- Industrial Estate
- Klondyke Industrial Estate
- Residential and business properties

Other Considerations

- Medway Estuary and Marshes SPA and SSSI (seaward and landward) around Queenborough

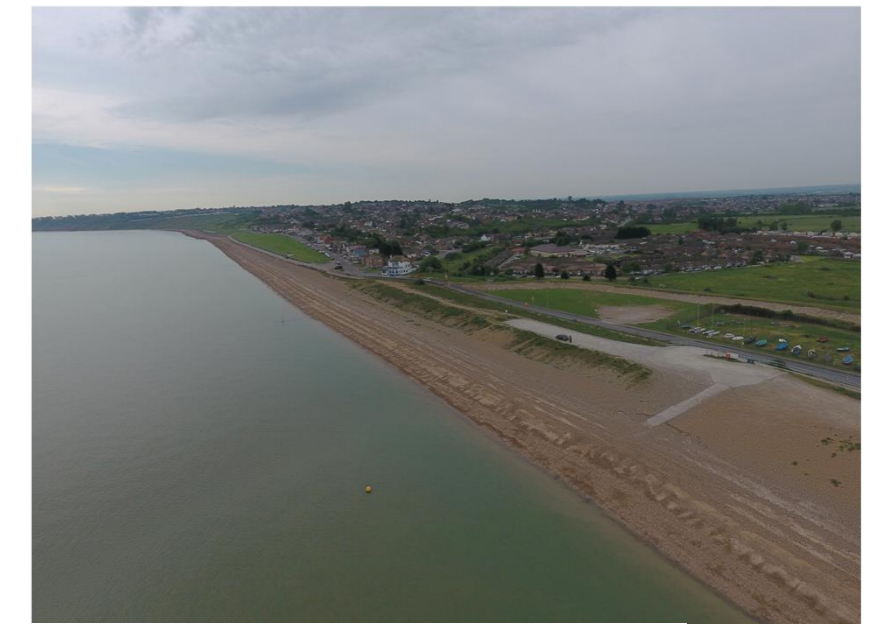
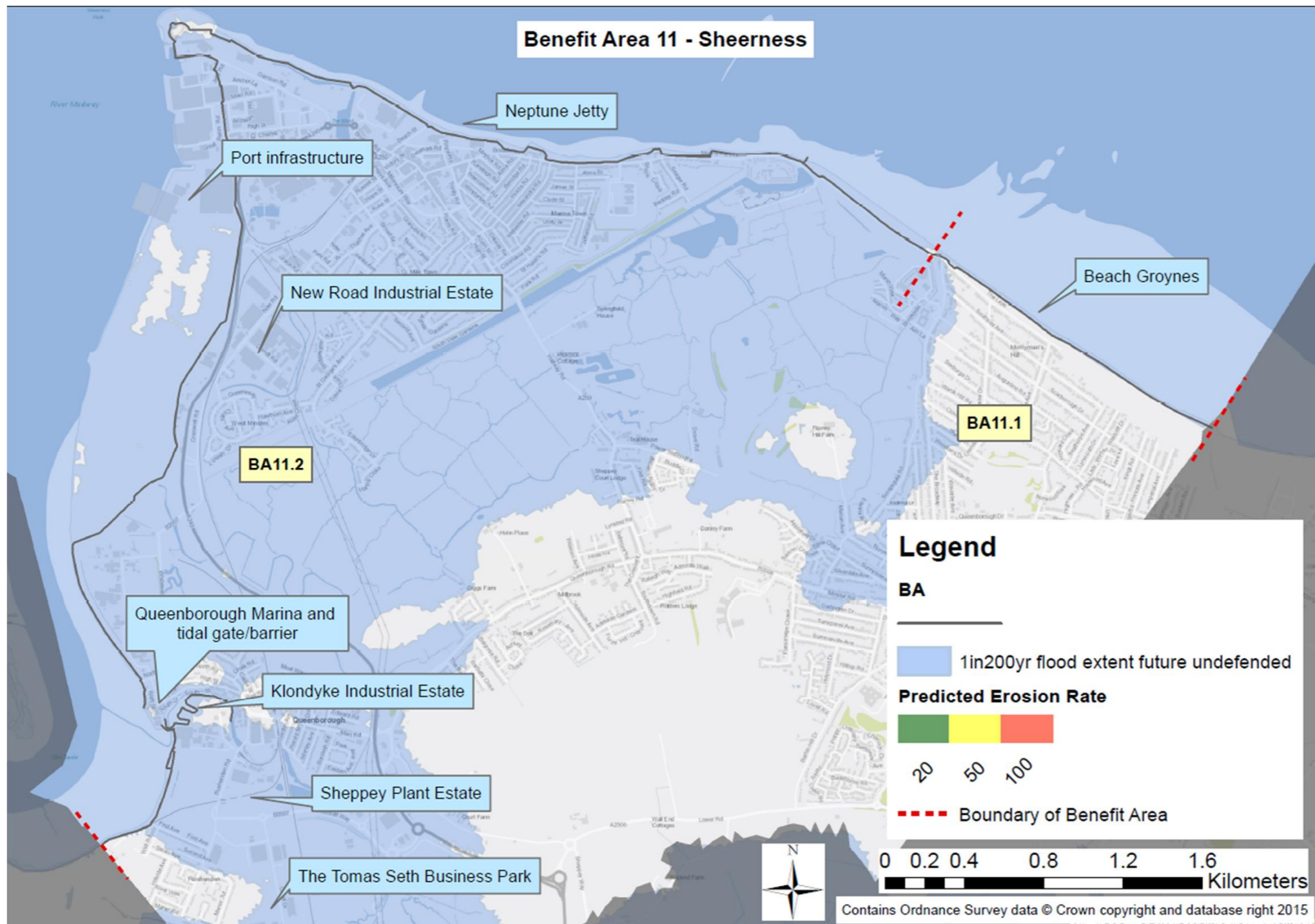


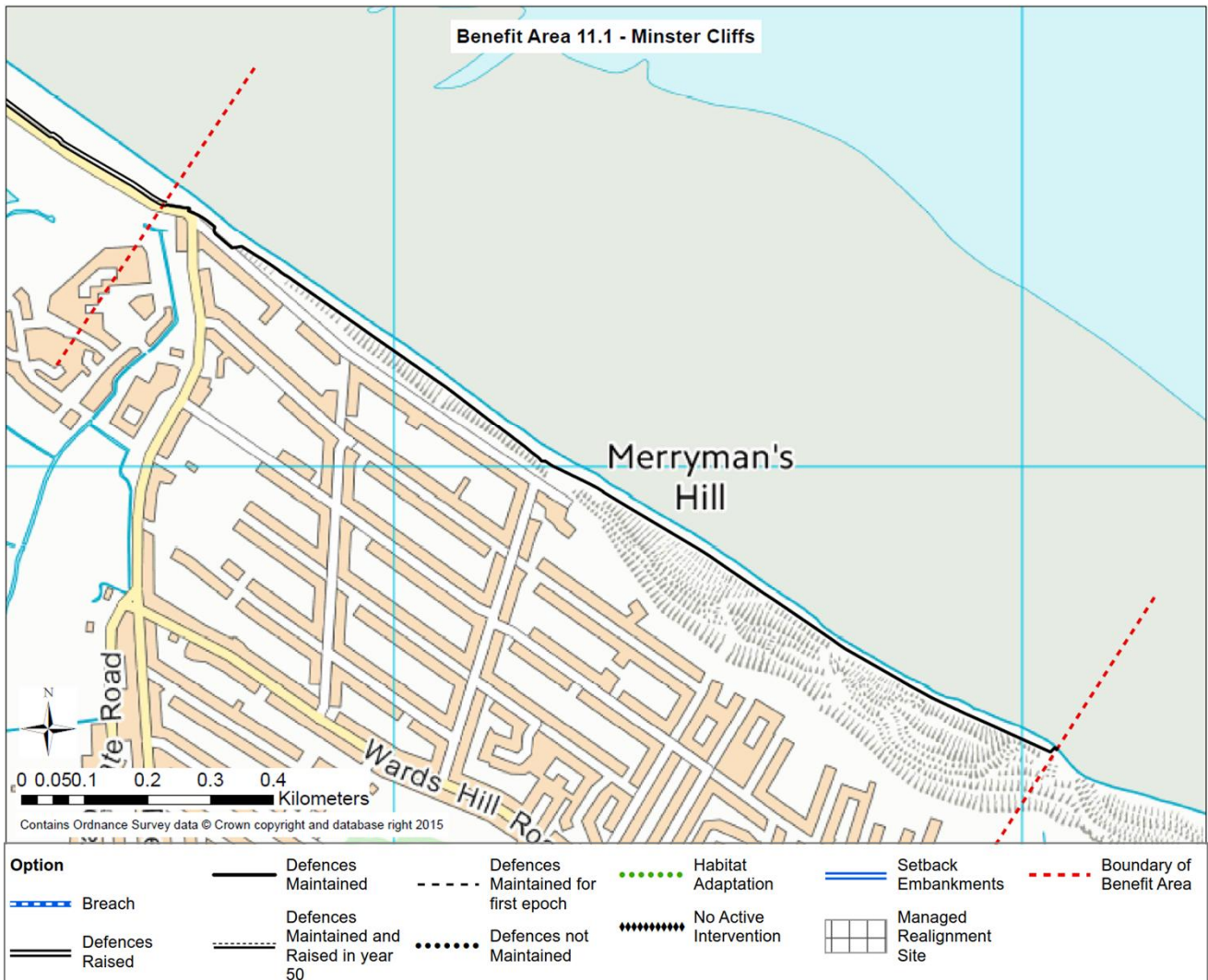
Figure 1: Bartons Point



Figure 2: Sheerness Seafront

BA11.1: Minster Cliffs

Now – 2038	2038-2068	2068-2118
HTL Maintain	HTL Maintain	HTL Maintain



Preferred Option

Maintain embankments, walls, flood gates, groynes and beach. Capital works will be undertaken on the current defences to ensure that they remain in place to protect the toe of the cliff and assets behind the shoreline from erosion.

Justification

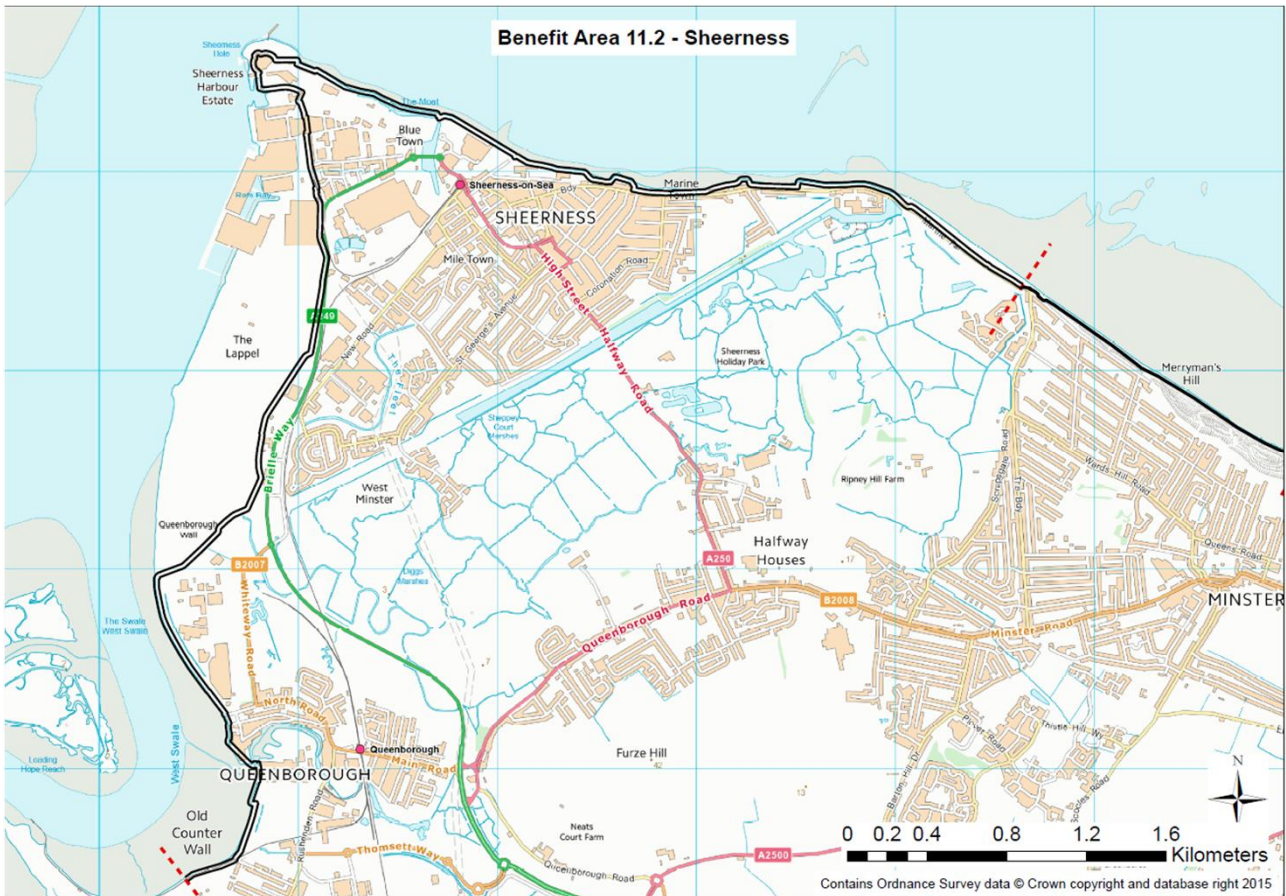
This option has a BCR greater than one and a high PF score. However, the option is ranked the lowest environmentally and mitigation will be required. As the risk is from erosion, the assessment of the increase in SoP provided by other options is not applicable because the main risk is from the erosion of the toe of the cliff and not from overtopping.

Preferred Option Costs

Costs	Benefits	BCR	PF Score
£997k	£13,931k	14.0	164%

BA11.2: Sheerness

Now – 2038	2038-2068	2068-2118
HTL Sustain	HTL Sustain	HTL Sustain



Option	Defences Maintained	Defences Maintained for first epoch	Habitat Adaptation	Setback Embankments	Boundary of Benefit Area
Breach	Defences Maintained and Raised in year 50	Defences not Maintained	No Active Intervention	Managed Realignment Site	
Defences Raised					

Preferred Option

Raise (sustain) embankments, walls, flood gates, groynes and beach. This option involves improving the SoP provided by the defences to SoP of 0.1% AEP with sea level rise; in year 3 to 5.4m AOD and then in year 50 to 6.9m AOD to continue to provide protection in line with sea level rise.

Justification

This option has the highest BCR, and a PF score above 100%. It has one of the highest environmental ranking from the short list of options. There is a higher economic justification for raising the defences in the short term rather than waiting for defences to reach their residual life to provide increased flood risk in the short term.

Preferred Option Costs

Costs	Benefits	BCR	PF Score
£18,081k	£607,198k	33.6	705%