

Studland Bay now

The defences and dunes at Studland Bay reduce flood risk to a 1 in 50 chance or less of occurring in any year.

The future

Flood and erosion risk will increase as sea levels and storminess increase. Even if we maintain defences at their current height, by 2030 flooding would occur with a 1 in 25 chance, and annually by 2110. However, local ground levels at Studland town would limit this flooding to around 50m inland.



Durlston Bay now

Durlston Bay is being eroded by up to 0.6m per year.

The future

Erosion risk will increase as sea levels and storminess increase, resulting in up to 60m of erosion by 2105.



Swanage Bay now

The seawall at Swanage reduces flood risk, although some wave overtopping can occur in storm events.

The seawall provides protection for up to 100 properties and a railway station. There are two care homes and a sewage treatment plant located close to the floodplain and erosion zone.

The future

Flood and erosion risk will increase as sea levels and storminess increase. Even if we maintain defences at their current height, by 2110 flooding would occur with a 1 in 25 chance.





Southern harbour and islands now

The southern harbour and associated islands are mainly naturally evolving coastline.

There is limited infrastructure at direct flood or erosion risk.

The future

In the future, flood and erosion risk will increase as sea levels and storminess increase. The coastline will continue to evolve naturally, whilst tide levels will encroach further inland. If unmanaged, it is notable that by 2110 the Arne peninsula could potentially be separated from the mainland at high tide.



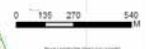
Brownsea Island now

Brownsea lagoon currently has a seawall that is overtopped in high tides. The rest of Brownsea Island is naturally evolving.

The future

Flood and erosion risk will increase as sea levels and storminess increase. Even if maintained, tidal flooding of Brownsea lagoon will become more frequent, whilst erosion will continue at up to 0.4m per year.

- Legend**
- School
 - Care Home
 - Erosion**
 - Potential Erosion by 2025
 - Potential Erosion by 2055
 - Potential Erosion by 2105
 - ▲ Sewage and Water Treatment Plants
 - Railway Station
 - Power & Gas Stations
 - Railway
 - Ferry Route
 - Flood Outline**
 - Environment Agency 1 in 200 Year Floodplain
 - National Conservation Sites**
 - ▨ Nature Reserves/Site of Special Scientific Interest
 - International Conservation Sites**
 - ▨ Special Protection Area/Ramsar Site/Special Area of Conservation



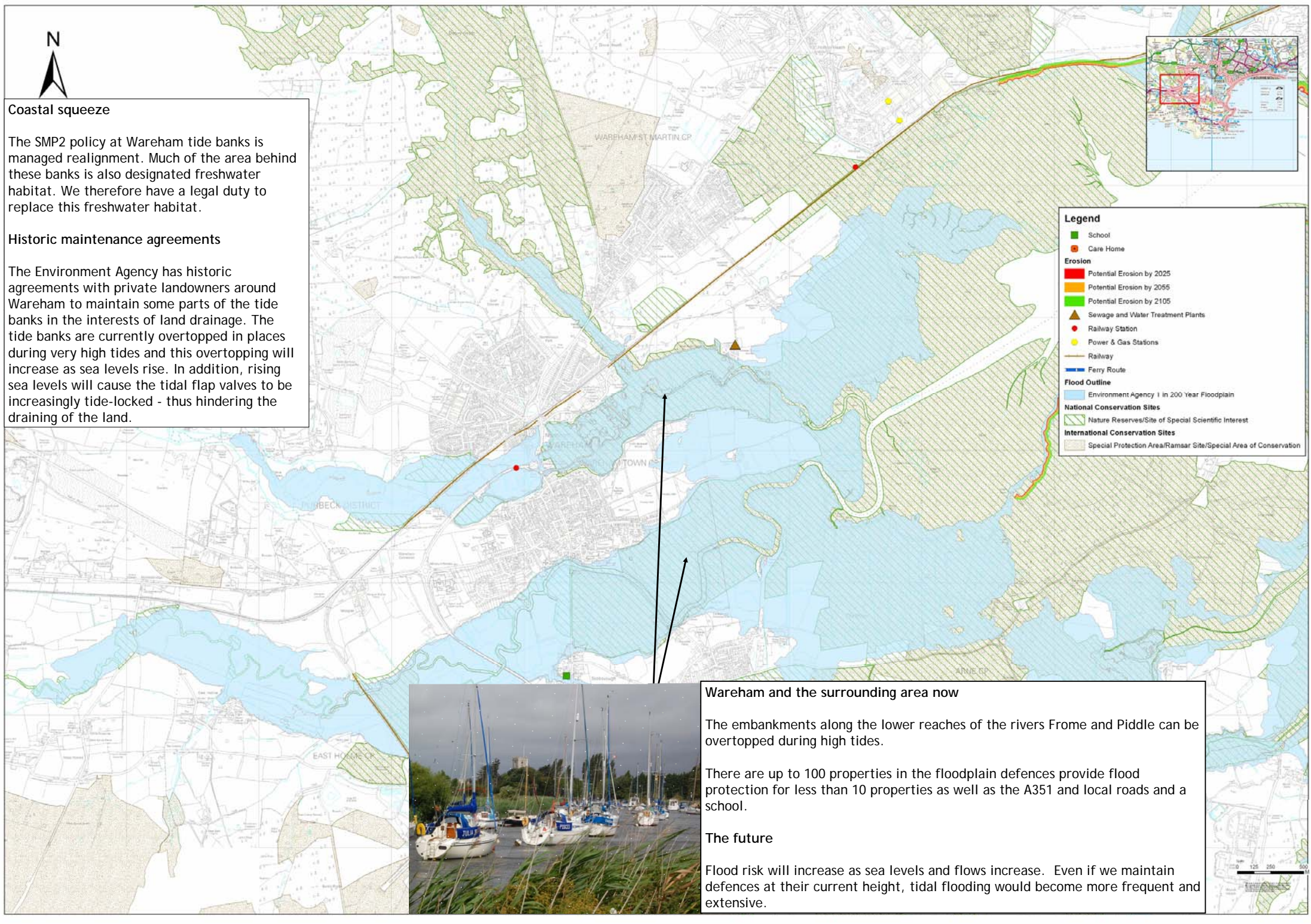


Coastal squeeze

The SMP2 policy at Wareham tide banks is managed realignment. Much of the area behind these banks is also designated freshwater habitat. We therefore have a legal duty to replace this freshwater habitat.

Historic maintenance agreements

The Environment Agency has historic agreements with private landowners around Wareham to maintain some parts of the tide banks in the interests of land drainage. The tide banks are currently overtopped in places during very high tides and this overtopping will increase as sea levels rise. In addition, rising sea levels will cause the tidal flap valves to be increasingly tide-locked - thus hindering the draining of the land.



Wareham and the surrounding area now

The embankments along the lower reaches of the rivers Frome and Piddle can be overtopped during high tides.

There are up to 100 properties in the floodplain defences provide flood protection for less than 10 properties as well as the A351 and local roads and a school.

The future

Flood risk will increase as sea levels and flows increase. Even if we maintain defences at their current height, tidal flooding would become more frequent and extensive.

