

## **What is coastal erosion?**

Coastal erosion is the natural action of wave and weather on the coastline which gradually washes soil and rock into the sea. Coastal erosion forms the cliffs we see along the coast – the White Cliffs of Dover are white because the chalk rock forming them is continually being eroded so grass does not have time to grow on it.

In some places coastal erosion can be relatively slow – for example where very strong rocks form the coast only occasional falls of rock may occur. However in other places, for example where softer soils form the coastline, erosion can be very rapid with many metres of coast disappearing each year into the sea. Whilst coastal erosion occurs all year round it happens more rapidly during the winter months when heavy rain and waves can remove metres of material from sea cliffs in a matter of hours. The undermining of sea cliffs by coastal erosion can also cause sudden landslides, some of which can extend tens or even hundreds of metres into the land behind.

## **What are the problems caused by coastal erosion?**

Where coastal erosion is occurring, the land affected becomes unstable and may be unsafe to access and so may need fencing off. Properties near coastal erosion can become damaged if the ground beneath them becomes undermined and may become uninhabitable. There are likely to be restrictions on land use and new building in areas which may become affected by coastal erosion.

## **Can coastal erosion be stopped?**

Since coastal erosion is a natural process, it cannot be stopped entirely but it can be slowed down. Sea defences of concrete and stone can be built to protect sea cliffs from the effects of weather and waves but these are very expensive and need to be continually repaired. Even where present, in some cases sea defences are no longer being maintained due to cost. Unfortunately, because of the size of the defences needed and legal restrictions for working next to the sea, it is not normally possible for individual landowners to construct or maintain suitable sea defences to protect their properties from the effects of coastal erosion.

## **Who is responsible for coastal erosion?**

Unfortunately there is no right for any property to be protected from the effects of erosion since this is a natural process. Where there are sea defences these are normally large and owned by public bodies like local councils, but there is no guarantee that they will continue to repair these when they become damaged. Checks will need to be made as to who owns any sea defences protecting properties and whether they intend to maintain them. Information on sea defence maintenance policies is also available in the local Shoreline Management Plan which local councils should be able to provide.

## **Can coastal erosion be predicted?**

Average rates of erosion can be calculated based on historical information (such as changes in the coastline shown on old maps). Unfortunately erosion doesn't actually take place in a steady way, so some years there may be much more erosion than others, and rates of erosion may increase in the future. Information on predicted rates of coastal erosion is available in the local Shoreline Management Plan which local councils should be able to provide.

**What if I think I have a problem with coastal erosion?**

If you think you may have a problem with coastal erosion first thing to do is get suitable professional advice. A geotechnical engineer will be able to tell you if coastal erosion is taking place and if so what the risk to your property might be – links to the Association of Geotechnical and Geo-environmental Specialists (AGS) are below. The local council should be able to provide you with the local Shoreline Management plan which will explain the predicted erosion rates and whether there are any sea defences which may protect the property. If you are buying a property a Terra firma Ground Report includes information from the Shoreline Management Plans.

**Useful information**

- Information on Shoreline Management Plans can be found at: <https://www.gov.uk/government/publications/shoreline-management-plans-smpls>
- Specialist geotechnical engineers can be found via the Association of Geotechnical and Geo-environmental Specialists (AGS): <https://www.agss.org.uk/>