OVERVIEW
In this presentation, the authors examine the circumstances in which public bodies and professionals retained by them can be liable to pay monetary compensation for erosion damage. Coastal engineering, together with the analysis of coastal processes, play an important role in this legal landscape.

Public bodies may come under a duty to implement defensive works; but equally they may be responsible for adverse impacts from them, such as end effects erosion. Coastal engineers may be engaged to provide critical protective works; but they may be liable where works are not designed or built to required standards or for stipulated purposes.

Difficulties in assessing likely risk due to changes associated with climate change add an additional dimension with the increased risk of failure of protective works facing conditions which may not have previously been considered in the design criteria.

Drawing from a decade of experience acting for litigants and property owners in erosion hotspots in New South Wales, the authors identify the key principles that apply in Australia and other common law jurisdiction and discuss how these rules can apply to scenarios where a disaster arises on any coastline. Some of the cases covered were included in the 2017 review by the United Nations entitled “The Status of Climate Change Litigation”.

LEGAL LANDSCAPE
There is ongoing debate about how best to respond to coastal erosion: should communities retreat inland, defend against inundation by implementing seawalls or groynes, mitigate by sand supplementation, or some combination of solutions? This debate inevitably engages with legal questions about liability, compensation, property rights, and planning regulations.

Liability is principally governed by broader rules sourced in common law (or judge-made law developed by individual cases) in the law of torts, including the general rules of negligence and nuisance. There have been several cases in Australia and the United Kingdom which have involved disputes testing the application of these rules, but the full scope of the rules remains untested in the courts.

An examination of key cases and principles reveal the situations where liability can result for coastal erosion, despite the absence of a specific legislative regime, and despite an overlay of modern planning legislation. The effect of these principles is that private persons, including engineers, as well as public bodies, such as councils, local authorities and planning authorities, have significant risks of legal liability in certain circumstances where coastal erosions risks are created or exacerbated by positive conduct, or where a responsibility is assumed or contracted for the protection of property.

Many cases have arisen in scenarios of unprecedented storms and tides - even before the threats posed by climate change. In England, for example, there is a long line of cases about civil liability for coastal protection works which fail in extreme conditions resulting in damage that might have been avoided by works properly installed or designed to stronger specifications.

These principles of legal responsibility now fall to be applied in a world of increasing uncertainty and increased demand for the safe and effective protection of our existing built communities in the face of increased storm activity due to climate change. Some countries have added statutory provisions enabling mandatory orders to correct adverse erosion consequences caused by engineering works.

SIGNIFICANCE FOR COASTAL ENGINEERS
Coastal protection works require the expertise of engineers to ensure their efficacy and safety. Coastal engineers may also advise public bodies and decision-makers about long term impacts of different solutions. These activities give can have significant legal ramifications for those providing such services and advice, those receiving it and the impacted community.

The authors will illustrate these issues by reference to real cases in which engineering solutions have caused impacts on other properties, where engineering advice was ignored with resultant harm caused, and where tailoring a balanced solution has permitted property to be protected in a complex planning environment. These scenarios often involve conflicts between stakeholders in which coastal engineering solutions fail to be debated and litigated.