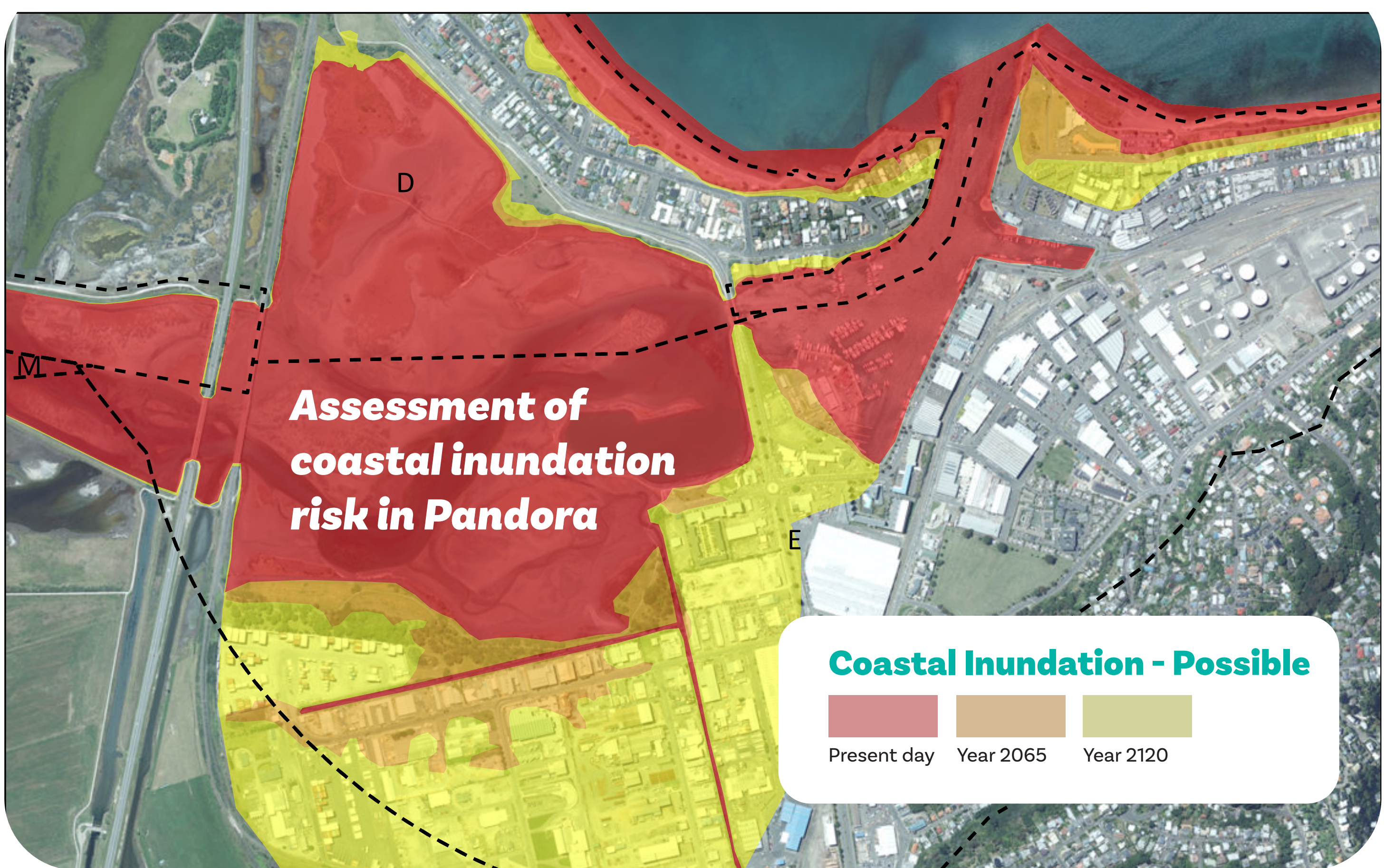
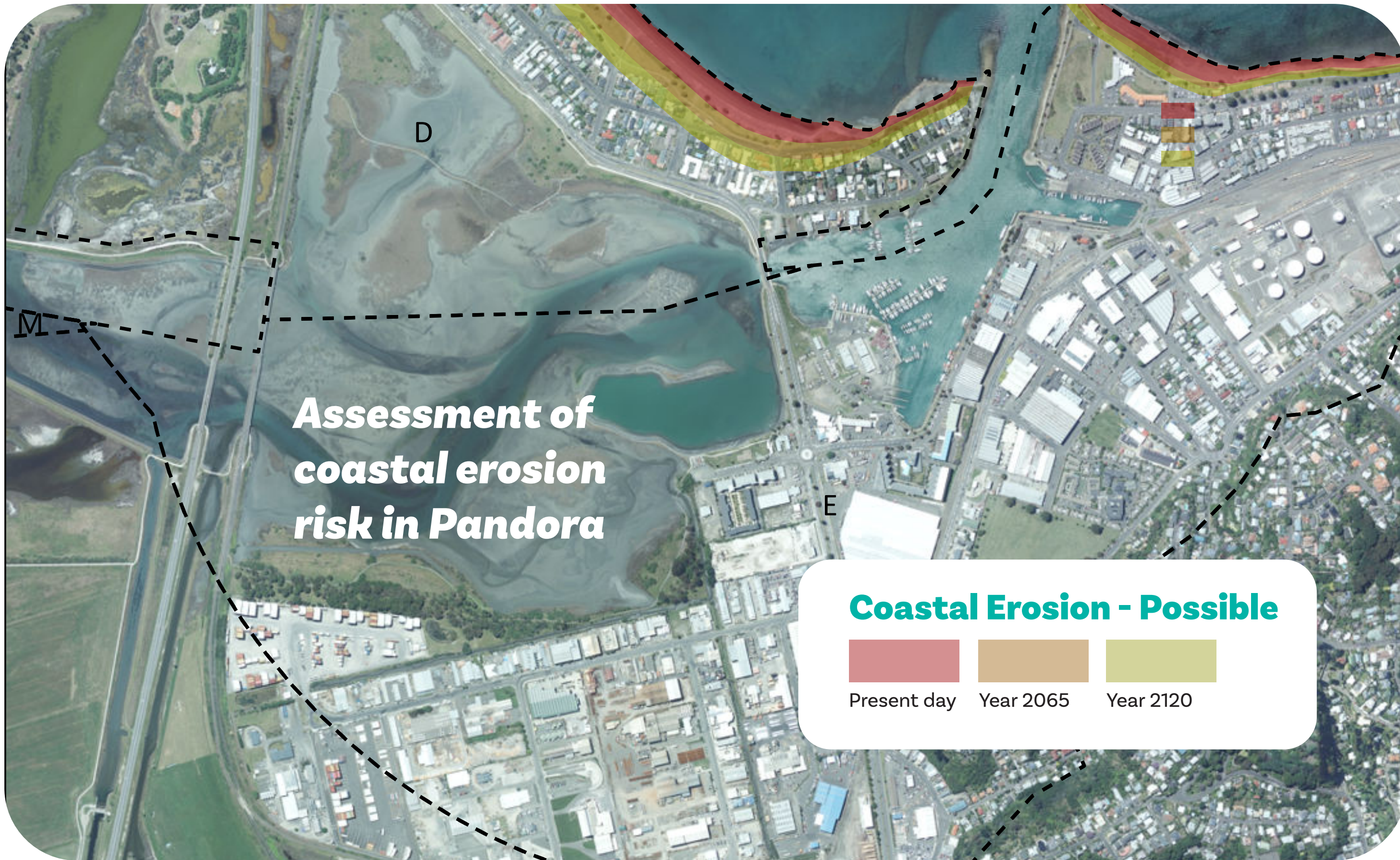


Pandora

Unit E2

What is the problem?



Current situation

- Properties along the Pandora inner harbour are primarily at risk from inundation over the next 100 years
- Over the next 20 years there are no properties that are considered to require retreat. However, some may still be exposed to low probability extreme inundation events.
- Facilities which require connection to the sea, may need specific consideration to enable them to continue to serve their function. It is anticipated that this will include relocation of those aspects that do not need to be located directly at the coastal edge.
- In 20 - 50 years there is an increased risk of inundation along the wider Pandora industrial area.
- The entire Pandora area (approximately 160 industrial premises, plus apartment complexes) is at risk by 2120.

Considerations for Pandora

- The stop bank at Marina may require additional rock armour protection.
- Detailed design is needed to assess the potential for return flow through drainage system and the need for additional flood gates.
- During the next 50-100-years, the increase in frequency and magnitude of inundation events will likely require the retreat of large parts of the Pandora industrial area, including assets along Thames Street and Humber Street, if protection works are not carried out.

Thresholds

Pandora Proposed Thresholds	
ADAPTATION THRESHOLD	
Coastal inundation causing the loss of one or more essential services affecting the majority of the community.	How long: At least 48 hours How often: More often than once every 5 years.
Community-wide coastal inundation causing damage to multiple buildings/service.	How long: Any duration How often: More often than once every 5 years.
Any serious injuries and/or fatalities that occur as a result of a coastal erosion or coastal inundation event.	
Civil Defence emergency is declared in response to coastal inundation or coastal erosion.	How often: More often than once every 10 years.
50% of an affected coastal community consider that a permanent loss of amenity has occurred as a result of coastal erosion or coastal inundation impacts	
50% of the community report actual or perceived property purgatory effects i.e. actual or foreseeable damage to their properties from coastal erosion or coastal inundation and uncertainty about being able to recover their losses	
50% of properties are unable to secure building insurance for losses from coastal hazards.	
Access to and use of the beach, coastal reserves and/or recreational facilities is prevented as a result of coastal inundation.	How long: At least 7 days How often: More often than once every 5 years.
Coastal inundation in Pandora affecting Thames Street and Severn Street causing loss of road access for the majority of the community.	How long: At least 48 hours How often: More often than once every 5 years.

When will we act?

What will we do?

Pathways

The pathways assessed for each unit were confirmed following an extensive options development/assessment process and used the principles of Dynamic Adaptive Planning Pathways ("DAPP"). The preferred pathway was selected following assessment of technical criteria including the management of hazard, risks and the impact of the option on the community: cultural, social and economic and impact on the natural environment. The pathways for Pandora is a storm surge barrier. The idea is to install stop banks to provide greater protection from storm surge inundation.

Rationale behind recommendation:

- 3rd highest scoring pathway under Multi-Criteria Decision Analysis ("MCDA") undertaken by the Panel.
- Preferred pathway under economic analysis undertaken by an independent economist.
- Considered to be the preferred pathway overall, taking into account the MCDA scores and economic analysis.
- Retains flexibility and ability to adapt when triggers are reached.
- Economist identified another possible pathway worth considering strictly on economic grounds (Pathway 11);
- The vote in favour of Pathway 3: 8 members in favour, 1 member against.

PANDORA - PREFERRED PATHWAY

Short Term (0-20 years) → Medium (20-50 years) → Long term (50-100 years)

Status Quo → Storm surge barrier → Storm surge barrier

