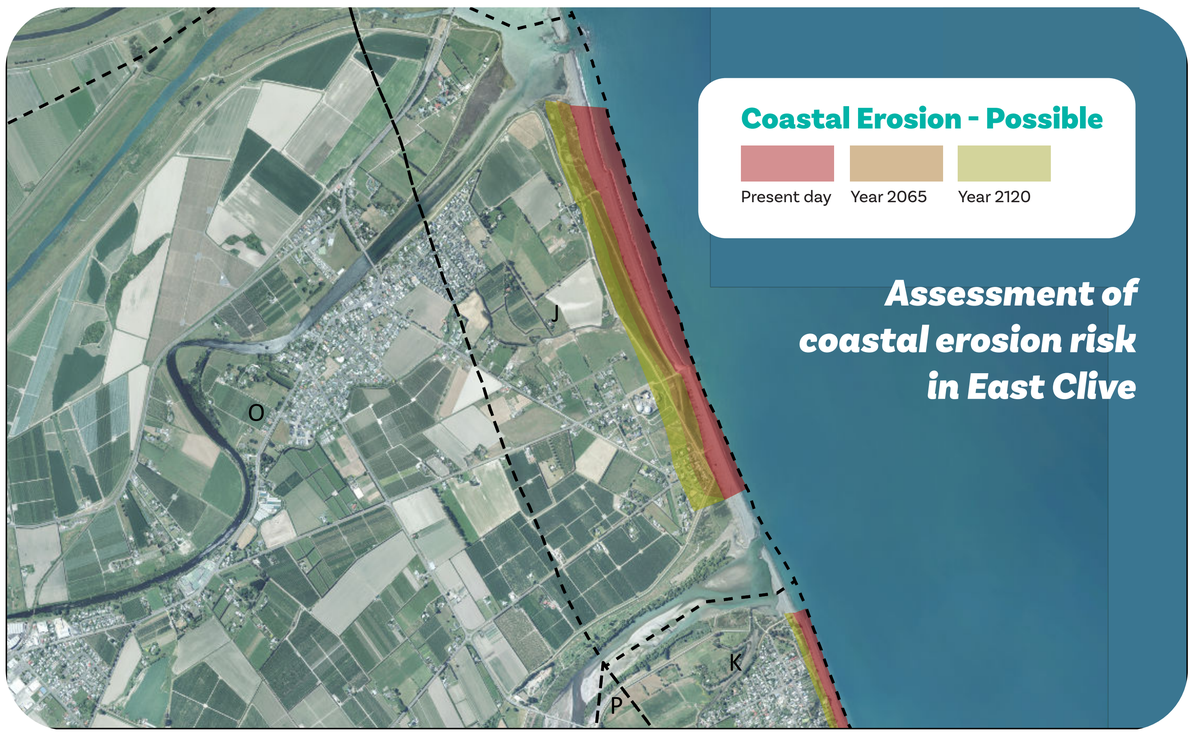
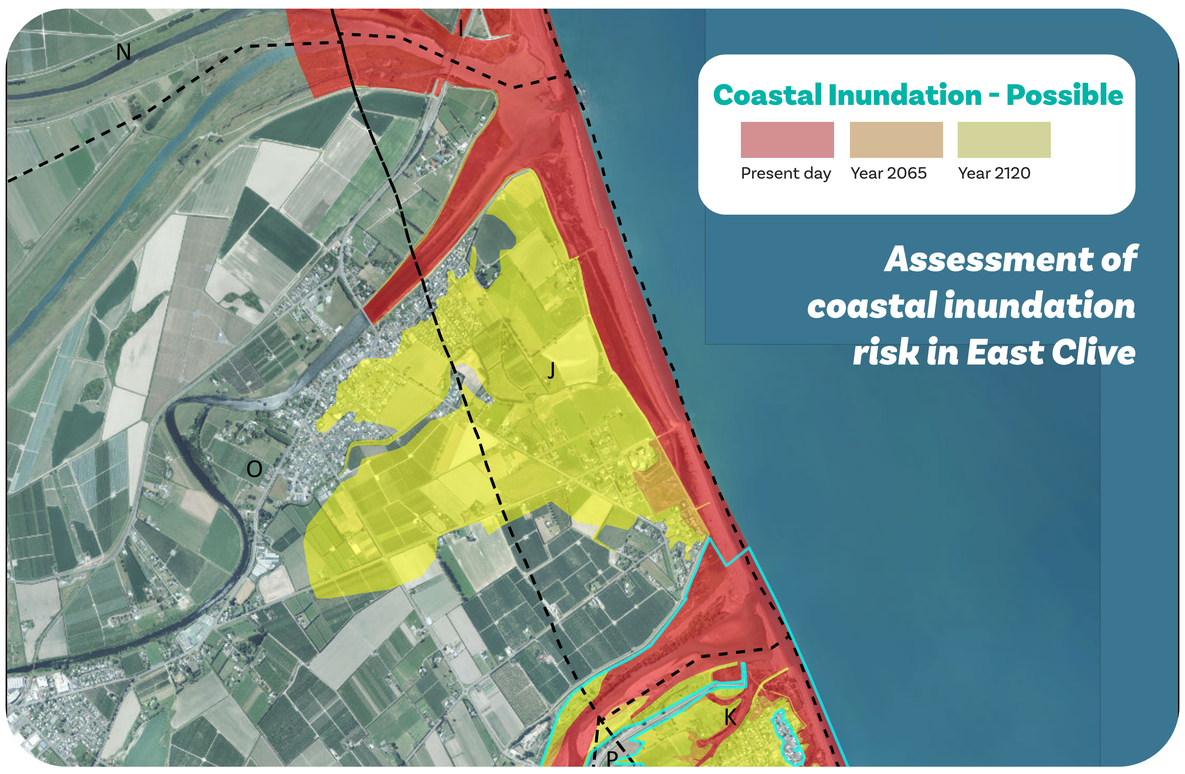
East Clive

Unit J

What is the problem?



Assessment of coastal erosion risk in East Clive



Assessment of coastal inundation risk in East Clive

Current situation

- **East Clive has existing stop banks that reduce inundation risks in the short to medium term**
- **Coastal erosion could cause the stop banks to fail in the longer term if nothing is done - inundation risks would then be significant**
- **There is a longer-term risk to the Hastings wastewater treatment plant.**
- **Estuarine areas are generally well adapted to coastal flooding/inundation.**
- **Beach scraping, crest management and planting could be useful short-term measures**

Thresholds

East Clive 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.
Buildings in East Clive are deemed uninhabitable as a result of coastal hazards (e.g. loss of septic tanks, building structural integrity etc).

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 by Community Panel members following assessment of criteria including how effective the option is at managing hazards and risks and the impact of the option on cultural, social and economic considerations and its impact on the natural environment.

The pathways for East Clive include:

- Ongoing maintenance of existing groynes in the short term
- Planting to reduce erosion rates.
- Gravel nourishment with groynes to protect the beach in the medium term.
- The most practical option is to adapt existing groynes and potentially increase the number of groynes.
- Long-term retreating and construction of new stopbanks may necessitate a planned retreat of some infrastructure.

Rationale behind recommendation:

- Highest scoring pathway under Multi-Criteria Decision Analysis (“MCDA”) undertaken by the Panel.
- Ranked 3rd under economic analysis undertaken by an independent economist.
- Retains flexibility and ability to adapt when triggers are reached.
- The vote in favour of Pathway 1: 10 members in favour (full support).

EAST CLIVE – PREFERRED PATHWAY

Short Term (0-20 years)	→	Medium (20-50 years)	→	Long term (50-100 years)
Status Quo	→	Renourishment + Groynes	→	Retreat the Line / Managed Retreat