

## Clive

### Setting

Clive is situated between Clive River and the Hastings sewage pumping station. The gravel beach is backed by a number of small backshore waterbodies. Shoreline trends are inferred from HB5 and 6.

Typically residential development is set back from the coast and there are extensive flood protection works within the coastal environment for river protection and flood control.

Dynamic coastal environment with significant shoreline movement and flooding events.



### Hazard Description

### Potential Risk

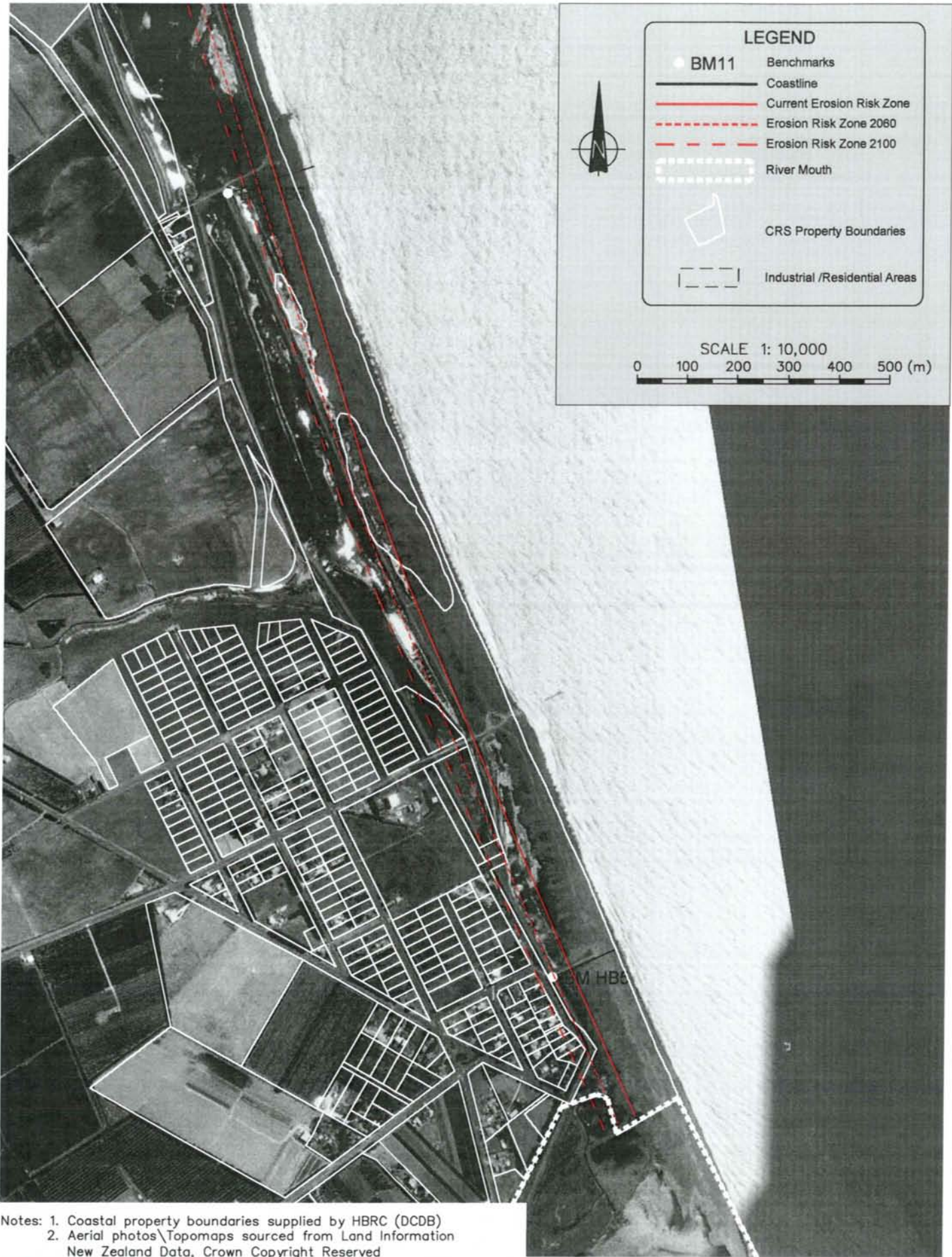
		Likelihood	Consequence	Risk
CERZ	58 m to 89 m	Unlikely	Major	High
ERZ 2060	36 m to 39 m			
ERZ 2100	27 m to 32 m	Possible	Moderate	High
Total Erosion Zone width	124 m to 157 m			
Sea Inundation level (CERZ)	15.0 m	Likely	Minor	High
Sea Inundation level landward of CERZ	13.6 m	Certain	Minor	High

### Uncertainties

Uncertainties over future climate change impacts

### Recommendations

- No new council infrastructure or new private development to be located within the CERZ
- Manage inundation by flood bund enhancement, dune crest enhancement and planting
- All new private development within remaining Erosion Hazard Zone to be relocatable and above inundation levels or be provided with flood protection bund subject to confirmation of no adverse effect on catchment flooding.
- No further modification of land designation permitted in currently non-residential zoned land within hazard zones
- Monitor shoreline change




**LEGEND**

- BM11 Benchmarks
- Coastline
- Current Erosion Risk Zone
- - - Erosion Risk Zone 2060
- - - Erosion Risk Zone 2100
- ⋯ River Mouth
- CRS Property Boundaries
- - - Industrial /Residential Areas

SCALE 1: 10,000  
 0 100 200 300 400 500 (m)

Notes: 1. Coastal property boundaries supplied by HBRC (DCDB)  
 2. Aerial photos\Topomaps sourced from Land Information New Zealand Data, Crown Copyright Reserved

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 <b>Tonkin &amp; Taylor</b> Environmental & Engineering Consultants <input type="checkbox"/> Hamilton <input checked="" type="checkbox"/> Auckland <input type="checkbox"/> Christchurch <input type="checkbox"/> Nelson <input type="checkbox"/> Wellington <input type="checkbox"/> Whangarei	DRAWN	BKD	Sep.03
	DRAFTING CHECKED		
	APPROVED		
	CADFILE :	L: \20514\20514-F7	
	SCALES (AT A4 SIZE)	1: 10 000	
PROJECT No.	20514		

**HAWKES BAY REGIONAL COUNCIL**  
 REGIONAL COASTAL HAZARD ASSESSMENT  
 HAZARD ZONE DEFINITIONS  
 Clive