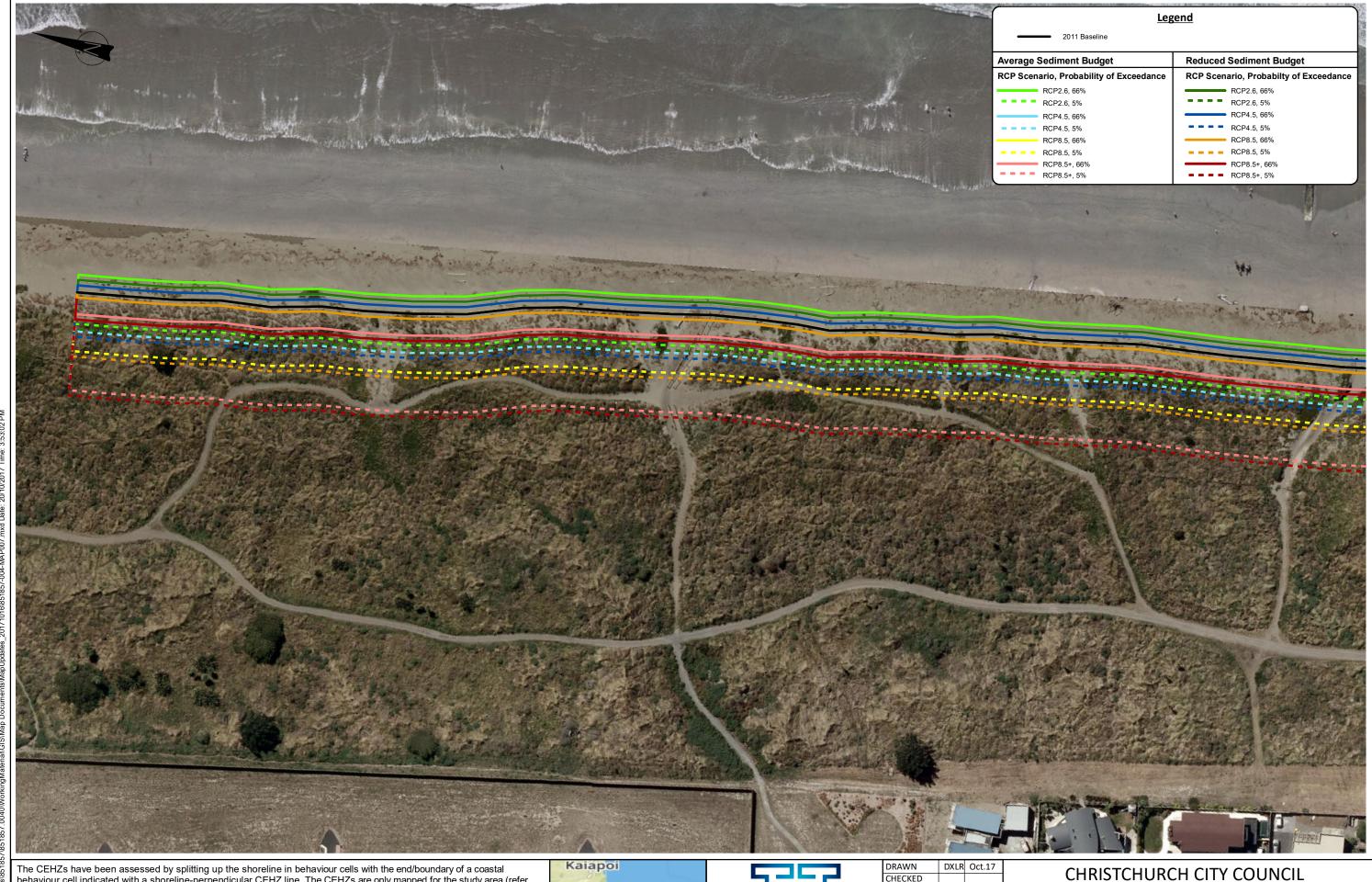
#### Appendix H: CEHZ result maps

Note: the assessment methodology and procedure used to present the information on the maps in Appendix H impose certain qualifications and limitations on its use. The maps are for indicative purposes only. The maps should be read and interpreted in conjunction with the main report. The coastal hazard information may be liable to change or review if new information is made available. Coastal inundation and/or erosion may occur at specific localised locations in addition to those shown on these maps. The hazard information is 'regional' in scope and should not be considered as a substitute for site specific investigations or assessments for any specific project.



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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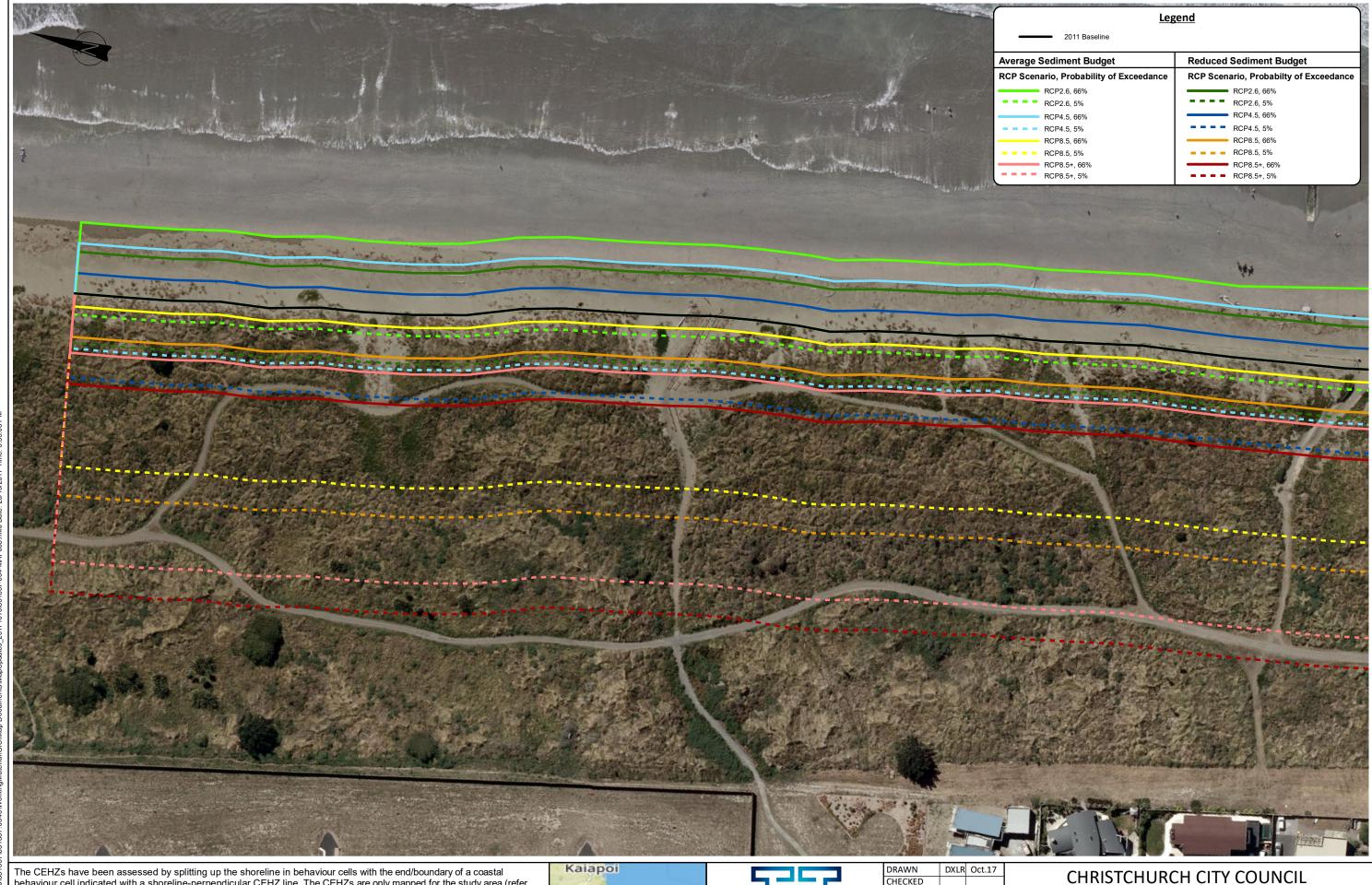
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 1(a)



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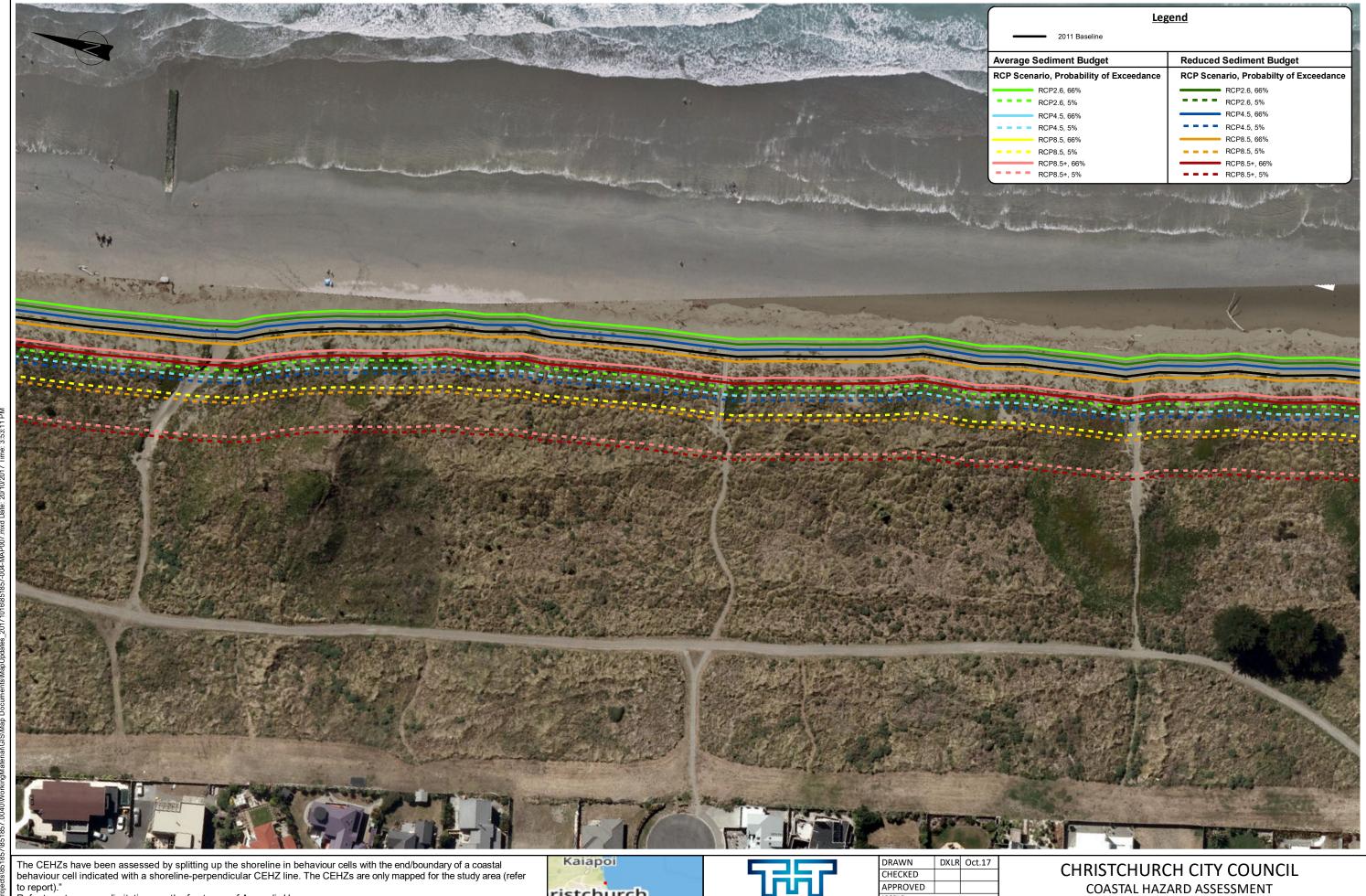
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#### COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H - 1(b)



Aerial Imagery (dated Feb 2011) sourced from Environment Canterbury and licenced for re-use under CC-BY 3.0 New Zealand

A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



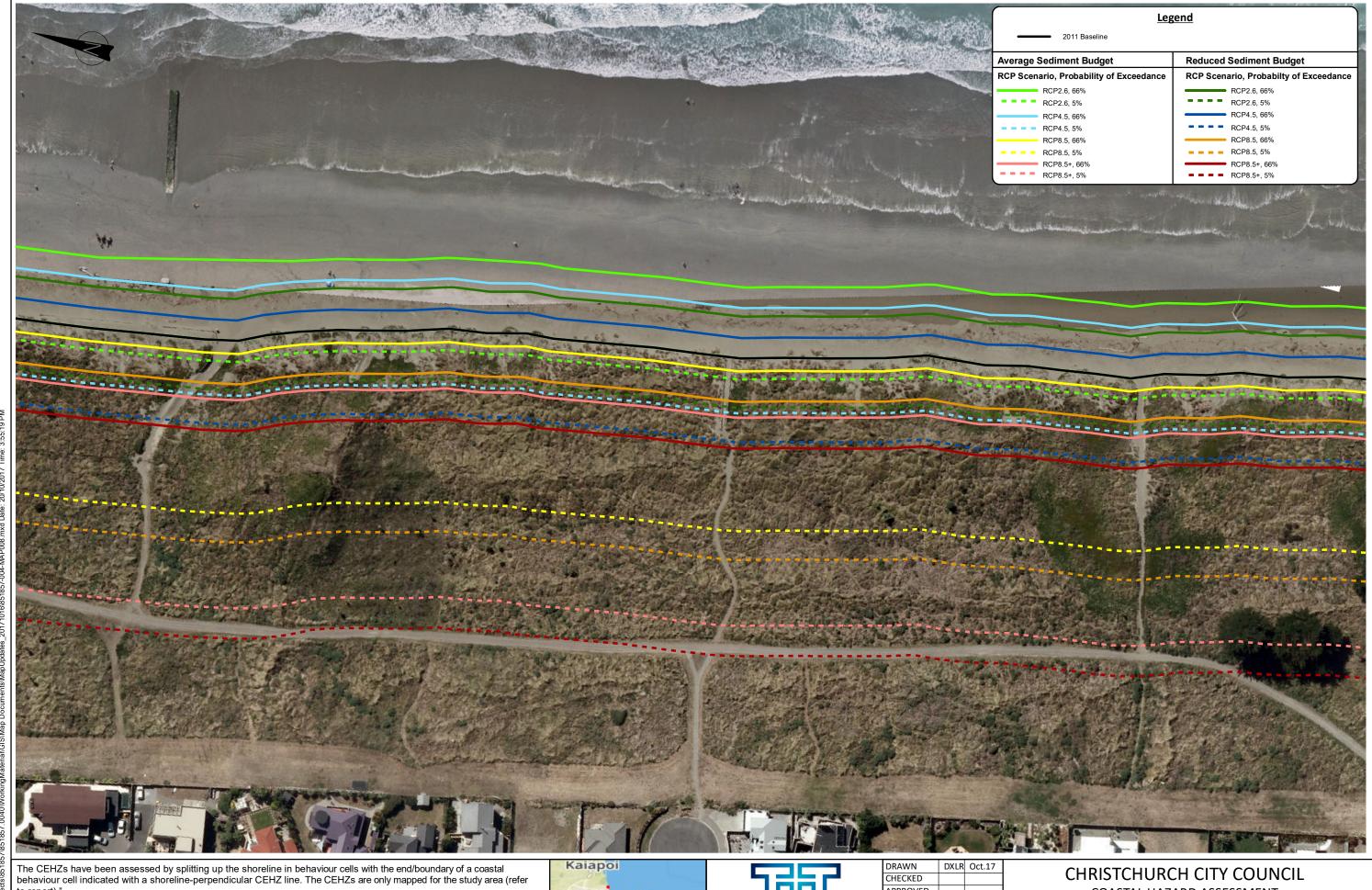
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Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 2(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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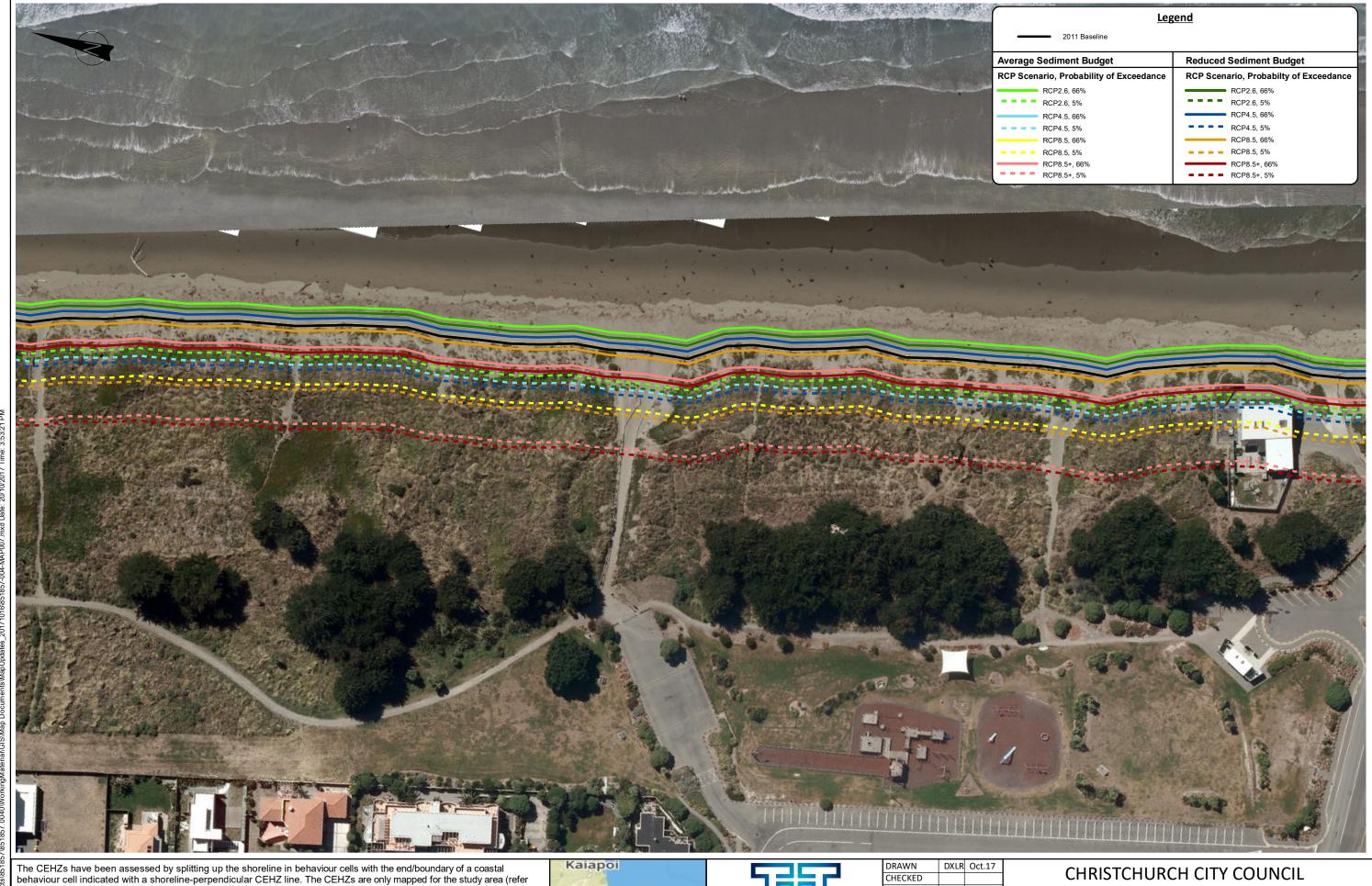
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H - 2(b)



Aerial Imagery (dated Feb 2011) sourced from Environment Canterbury and licenced for re-use under CC-BY 3.0 New Zealand

A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)

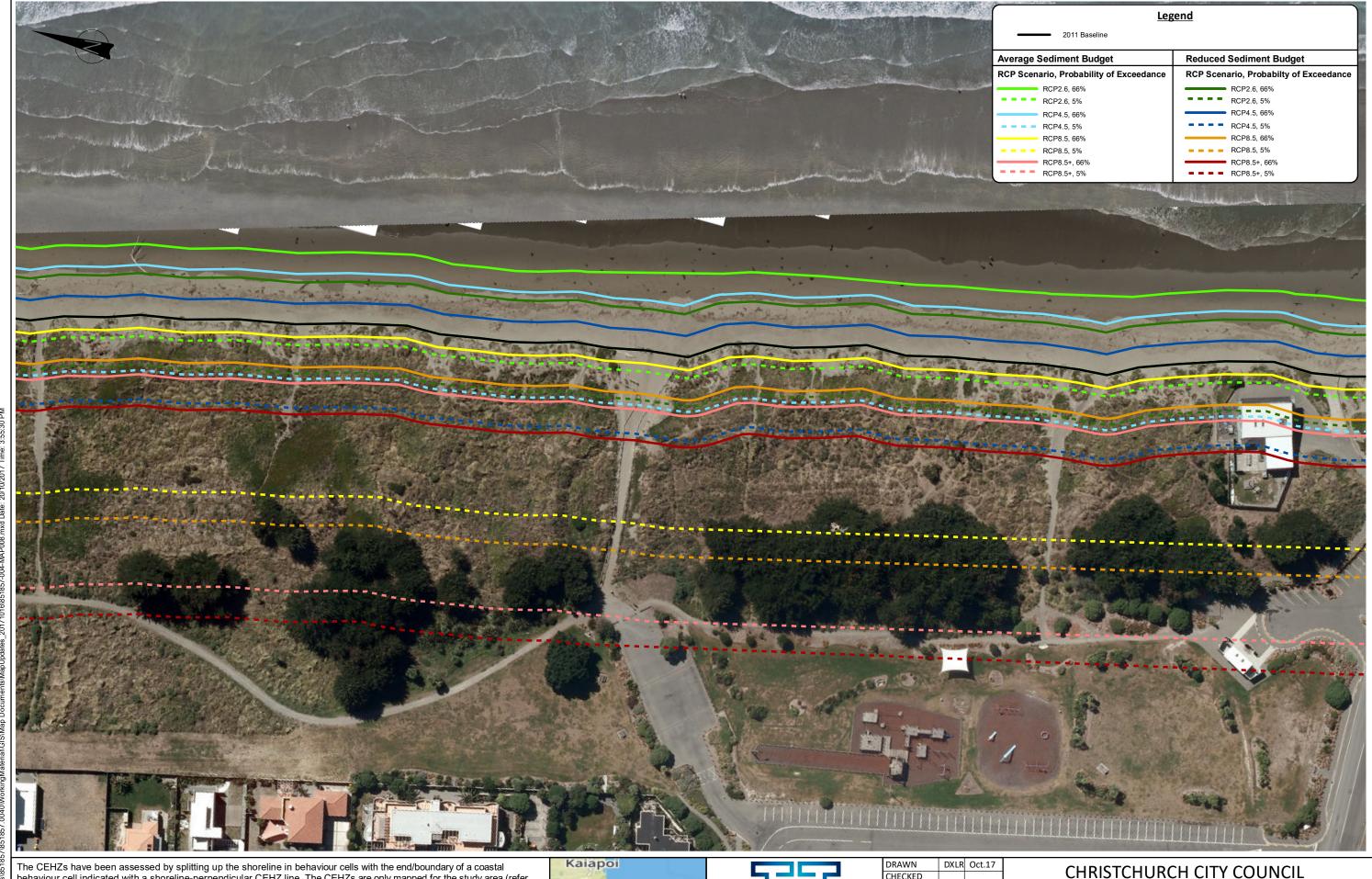


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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 3(a)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

Refer to note on map limitations on the front page of Appendix H.

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Open Coast - 2120 **Erosion Hazard Zones** 

Figure H - 3(b)

COASTAL HAZARD ASSESSMENT



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COASTAL HAZARD ASSESSMENT Open Coast - 2065

**Erosion Hazard Zones** 

Figure H - 4(a)



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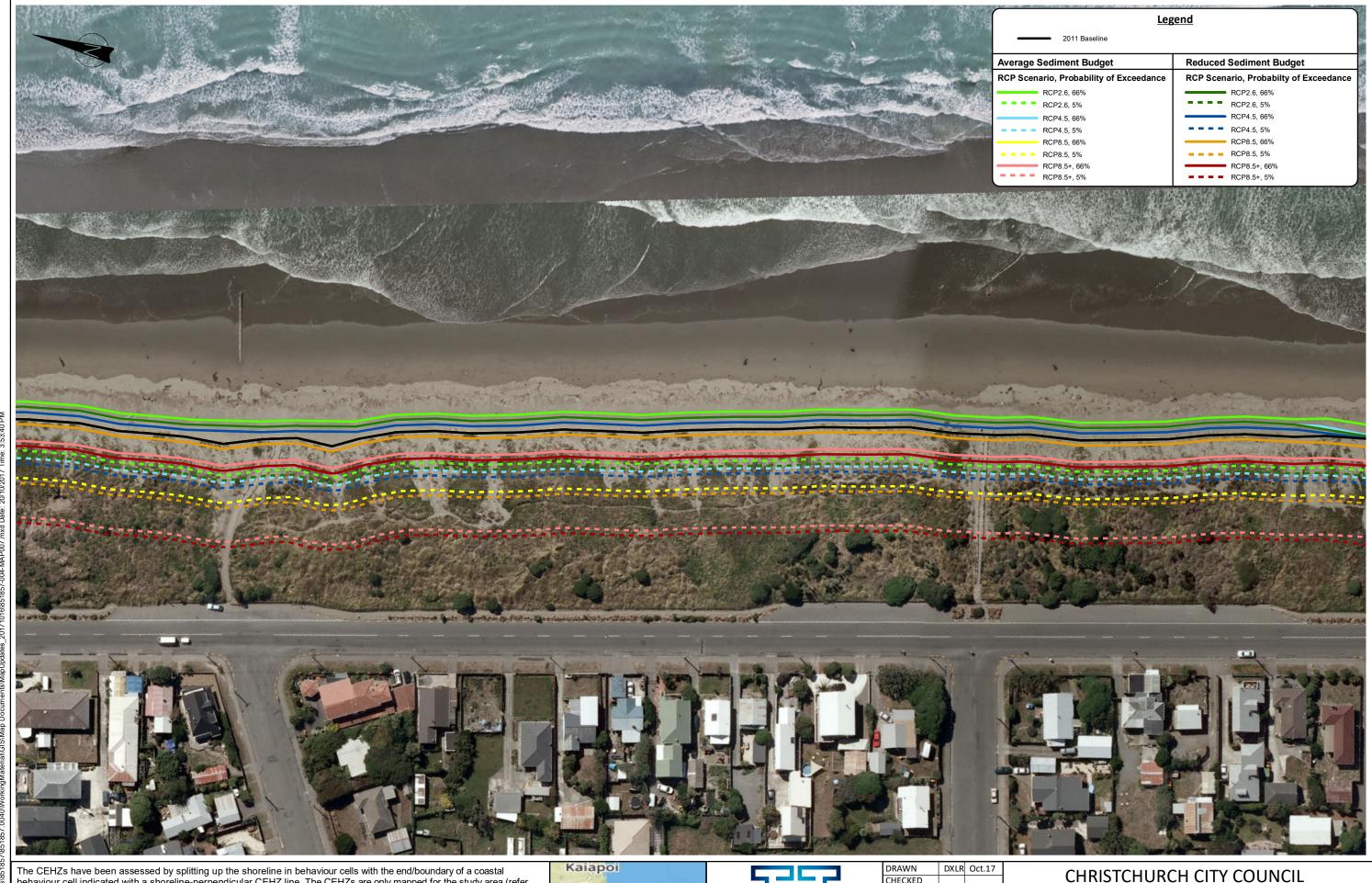
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Figure H - 4(b) 851857.004

COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 5(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H - 5(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)

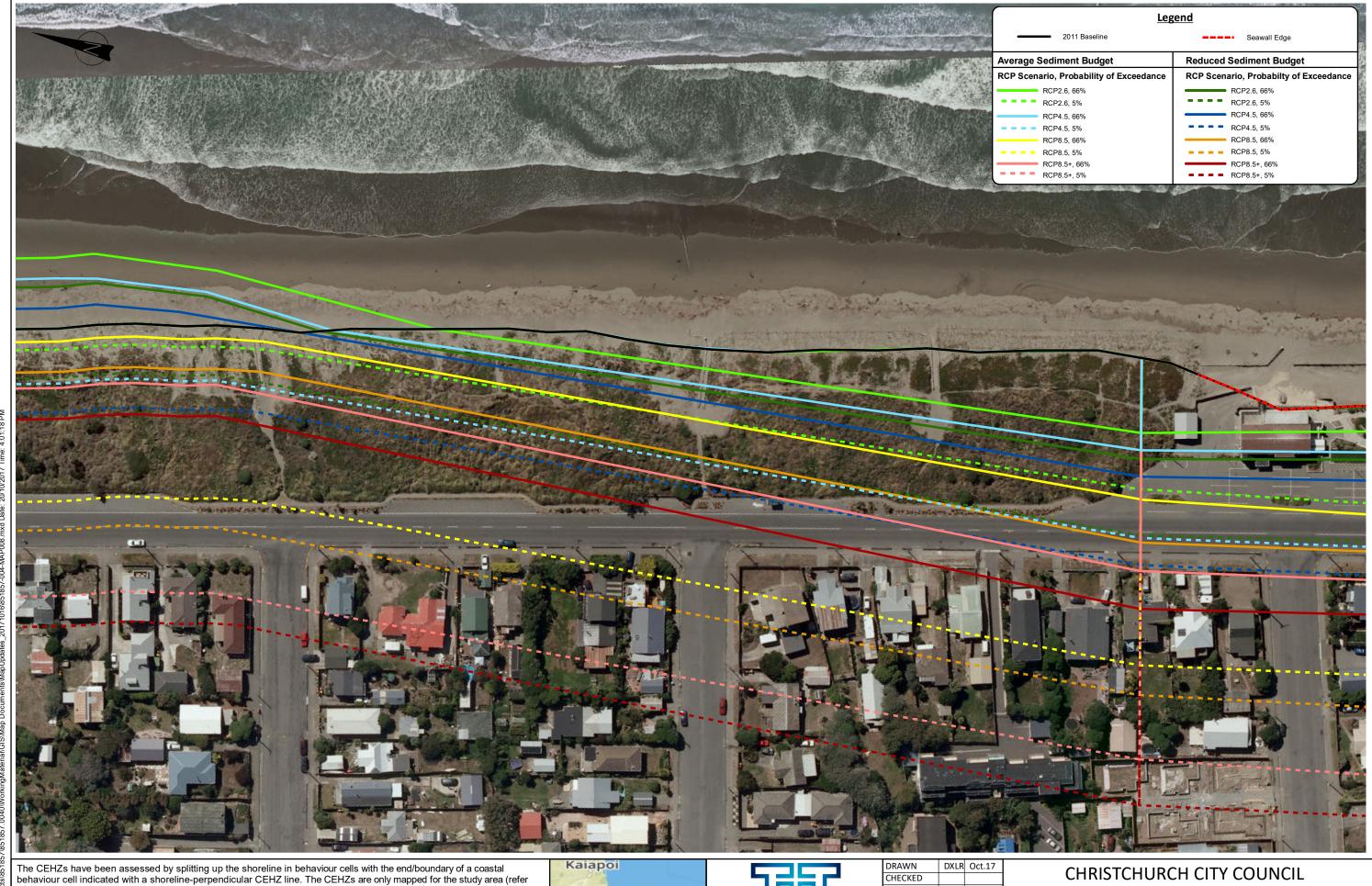


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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 6(a)



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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H - 6(b)

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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 7(a)



Aerial Imagery (dated Feb 2011) sourced from Environment Canterbury and licenced for re-use under CC-BY 3.0 New Zealand

A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)





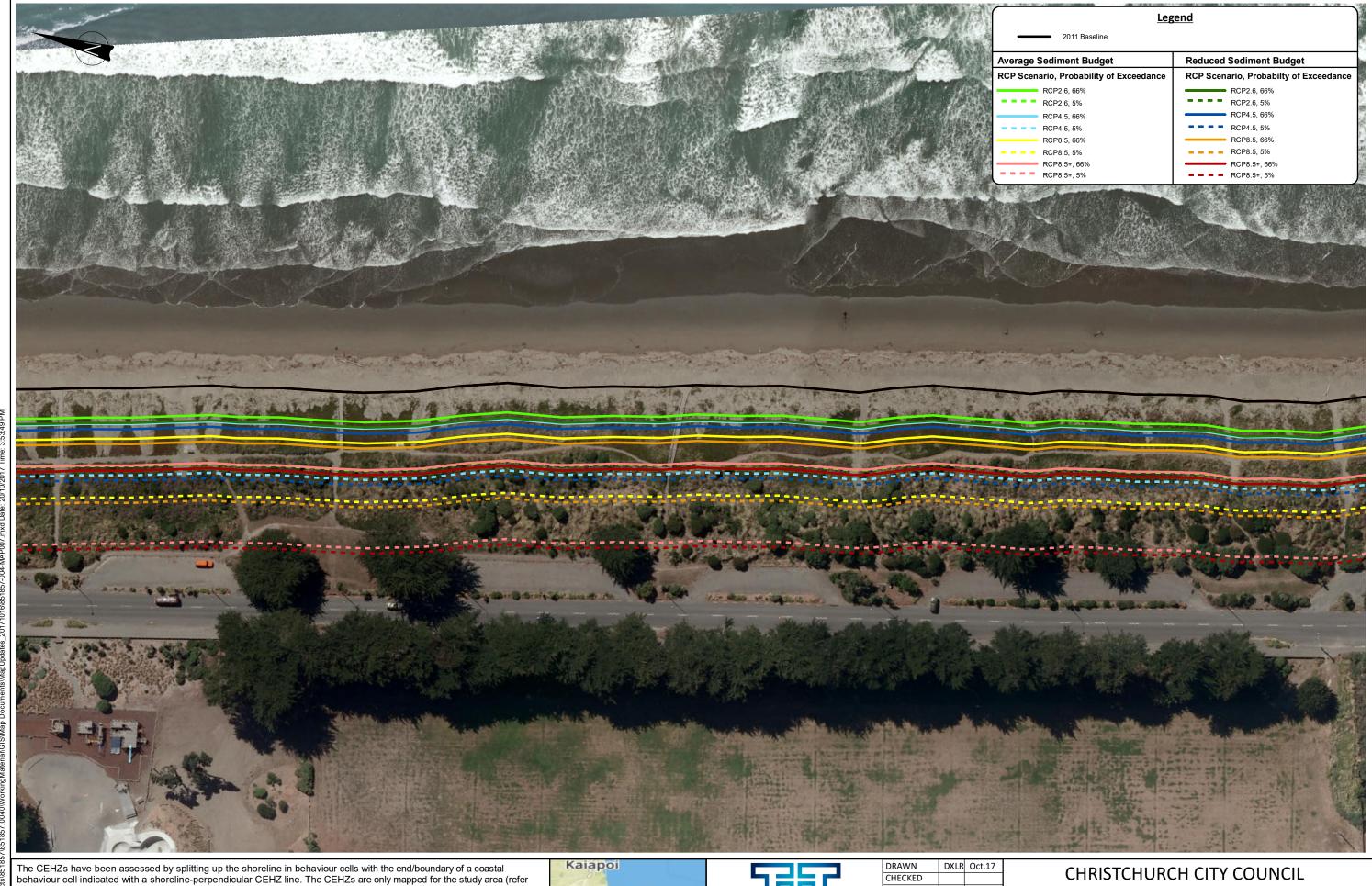
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H - 7(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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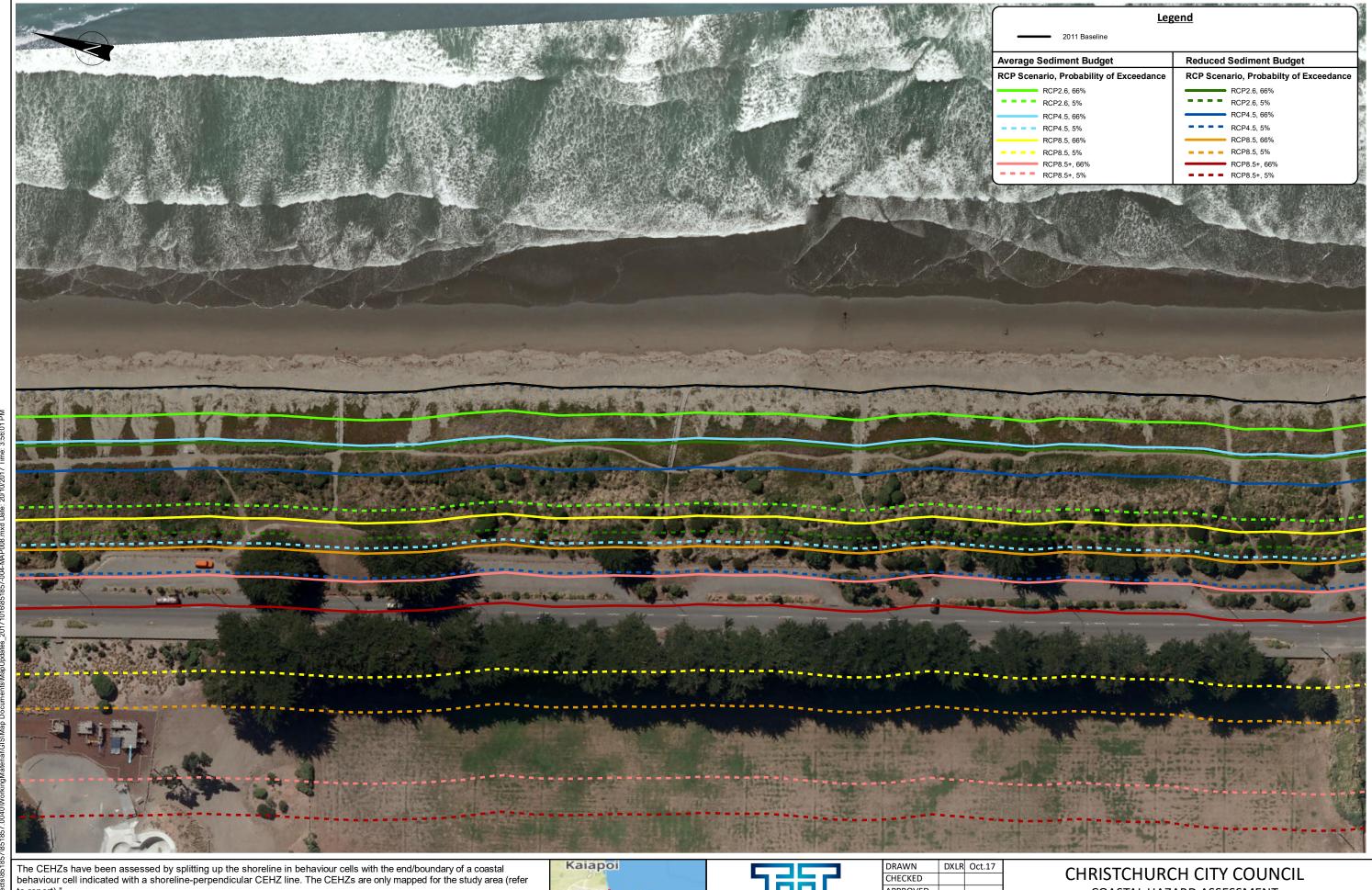
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 8(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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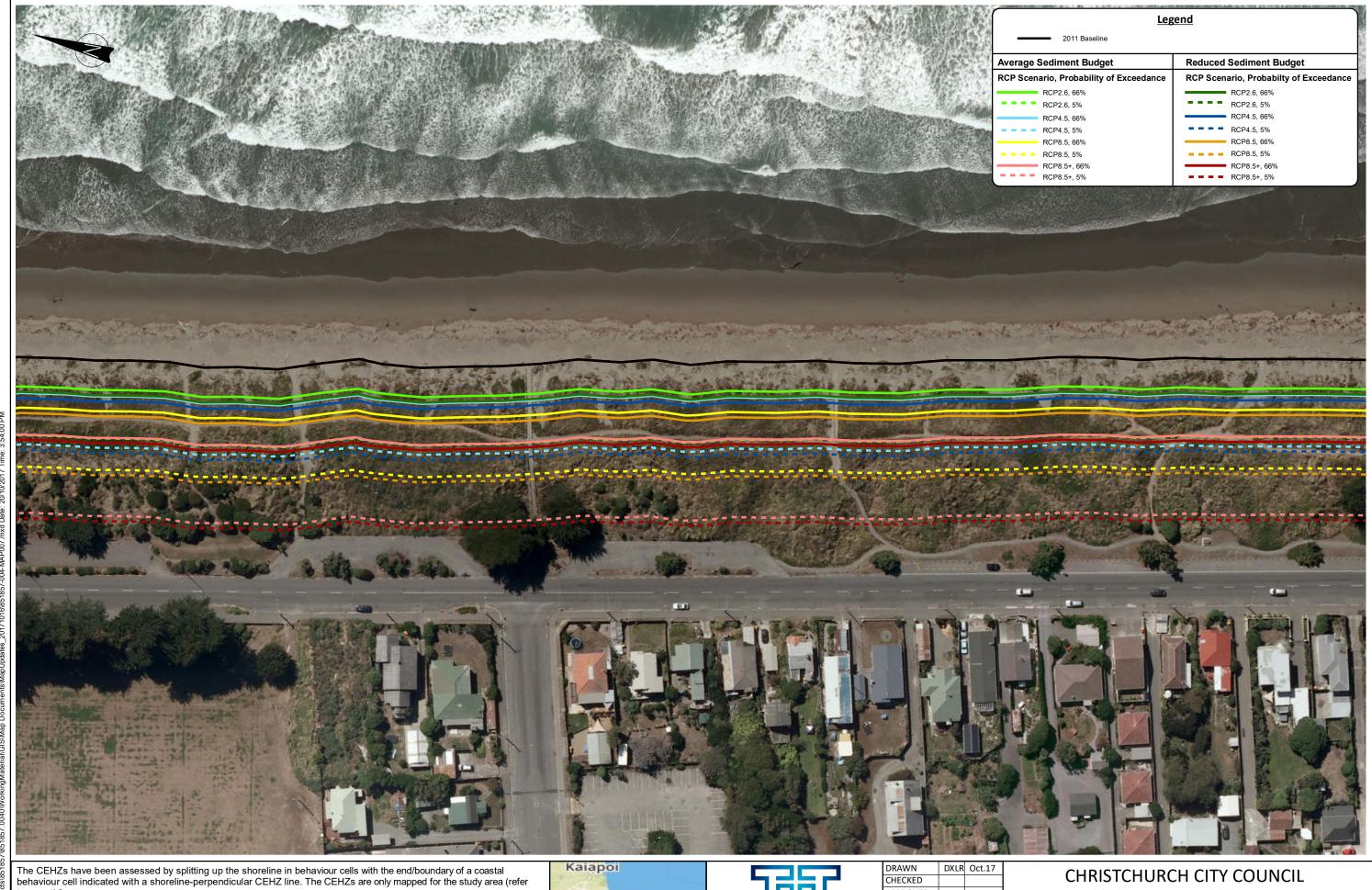
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COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H - 8(b)



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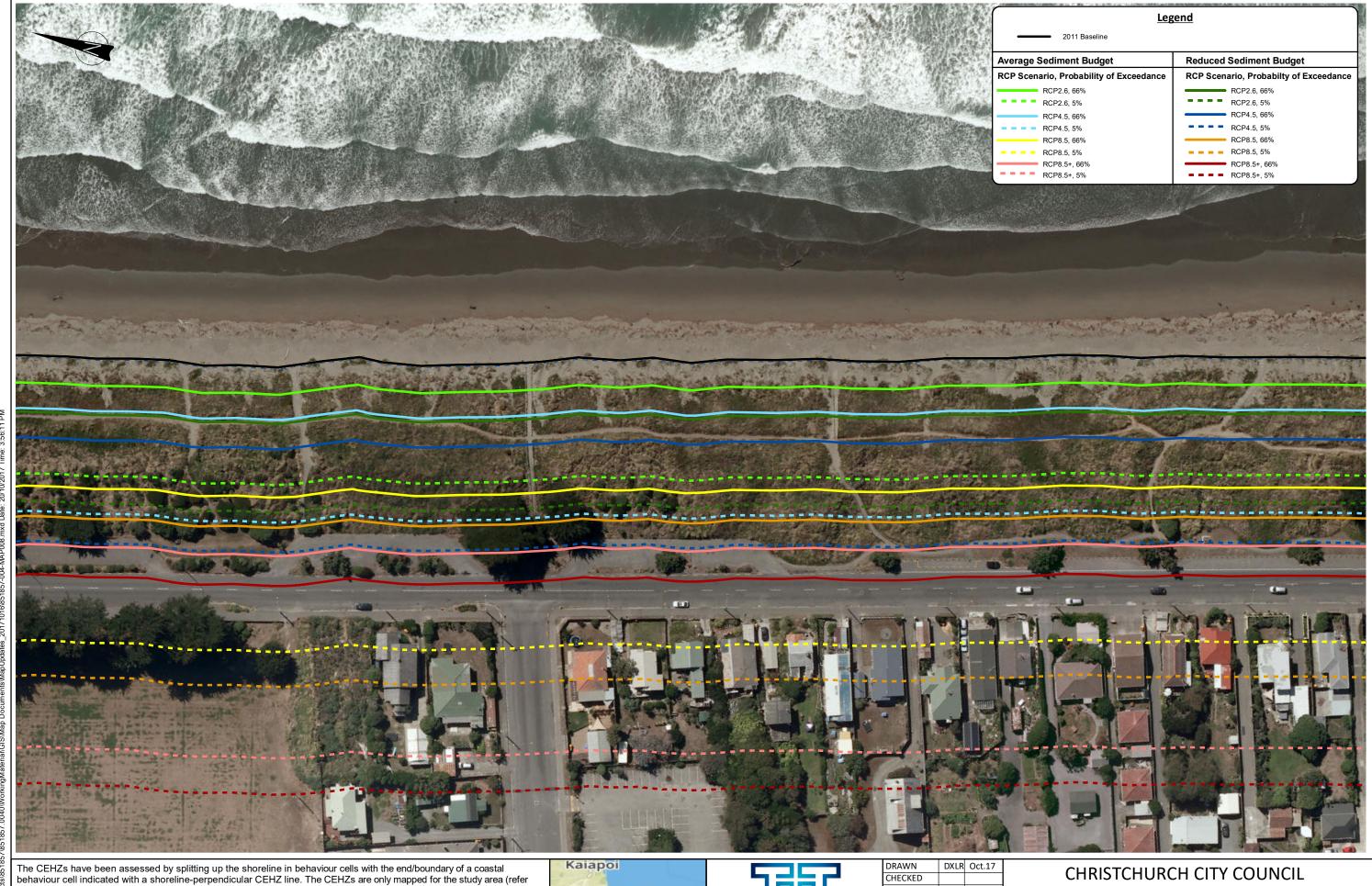
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H - 9(a)



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**Erosion Hazard Zones** 

COASTAL HAZARD ASSESSMENT Open Coast - 2120

Figure H - 9(b)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
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### COASTAL HAZARD ASSESSMENT

Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -10(a)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
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CHRISTCHURCH CITY COUNCIL
COASTAL HAZARD ASSESSMENT
Open Coast - 2120

Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -10(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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COASTAL HAZARD ASSESSMENT Open Coast - 2065

**Erosion Hazard Zones** 

Figure H -11(a)



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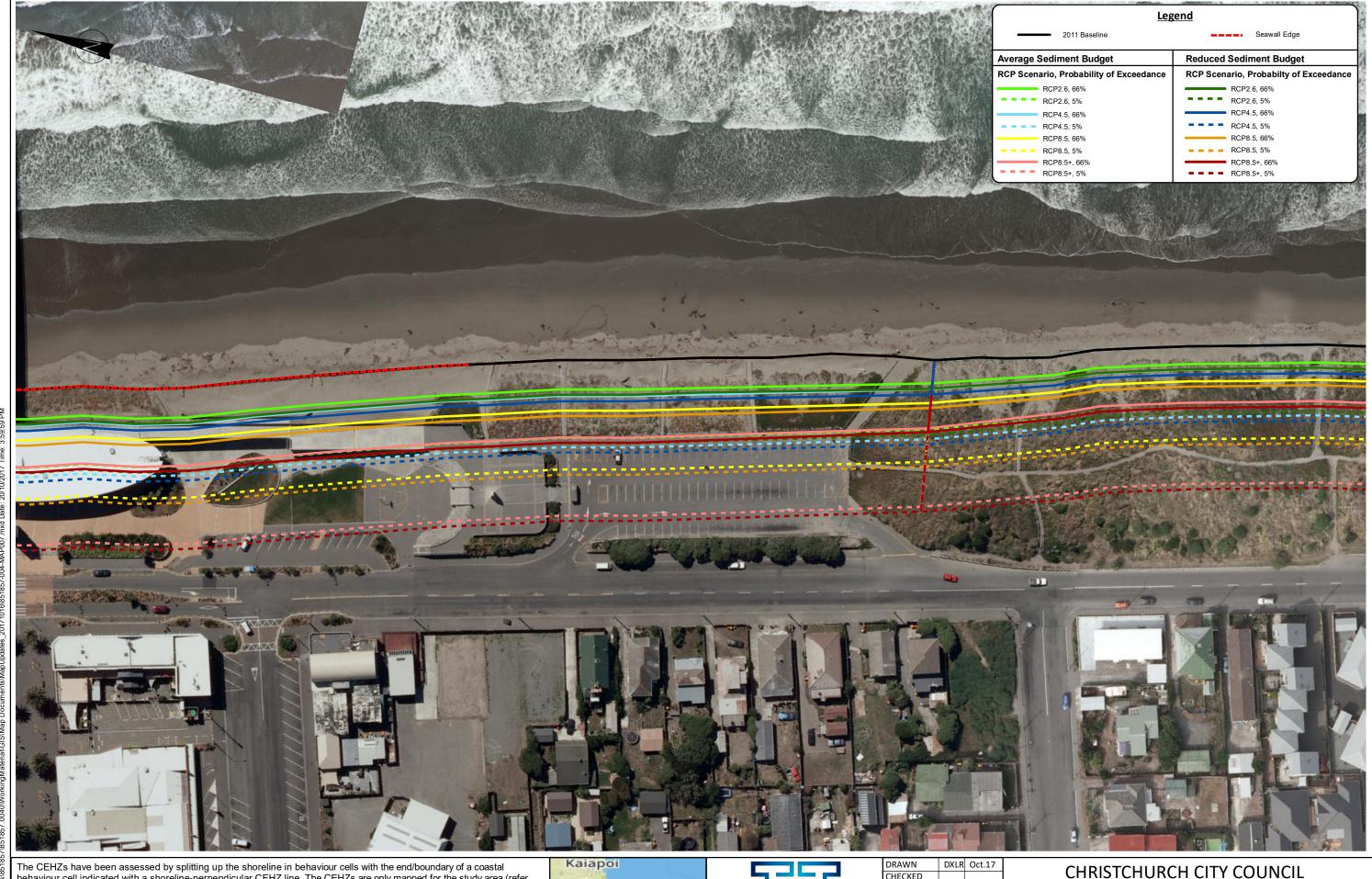
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COASTAL HAZARD ASSESSMENT

Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -11(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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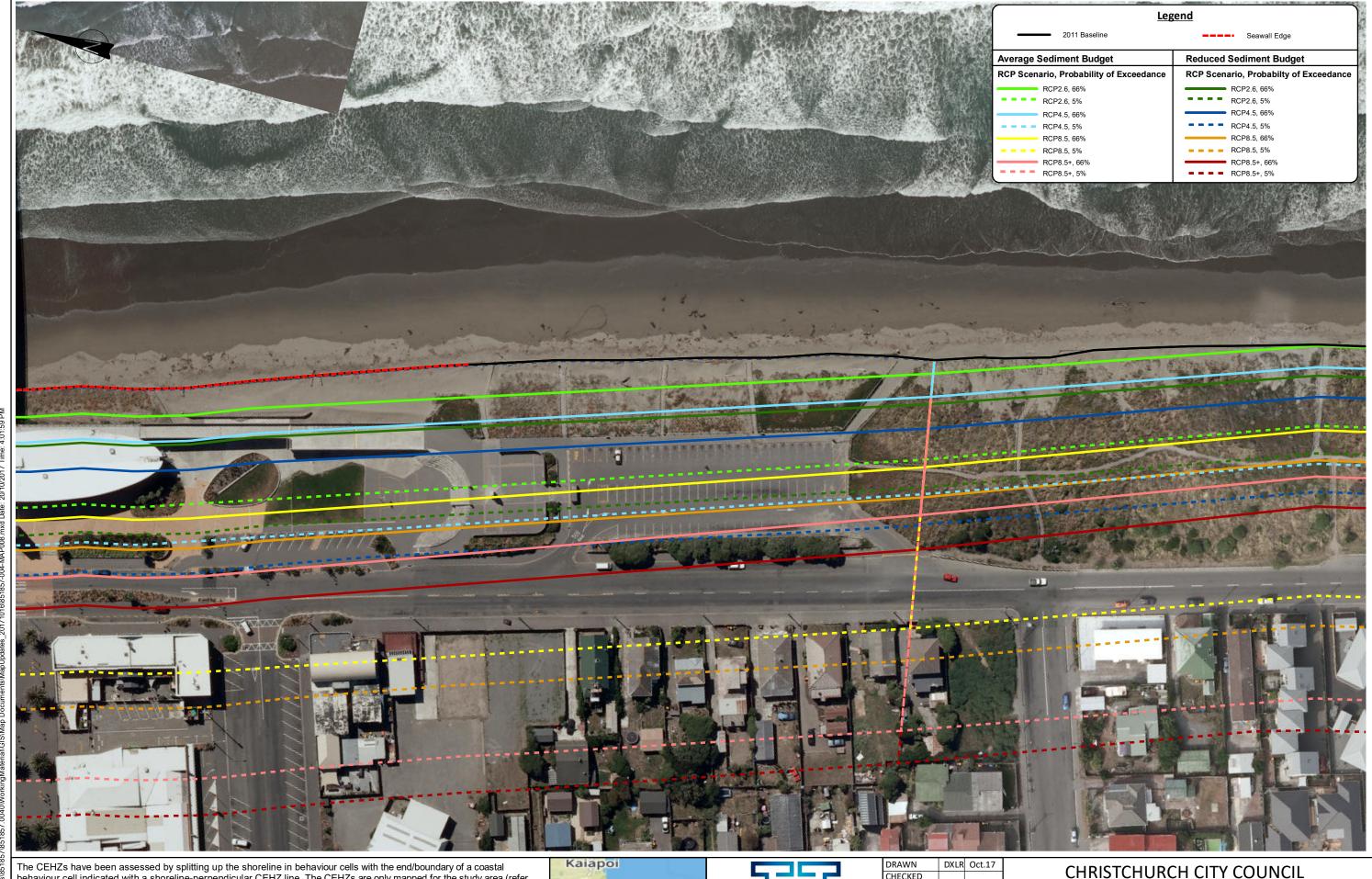
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -12(a)



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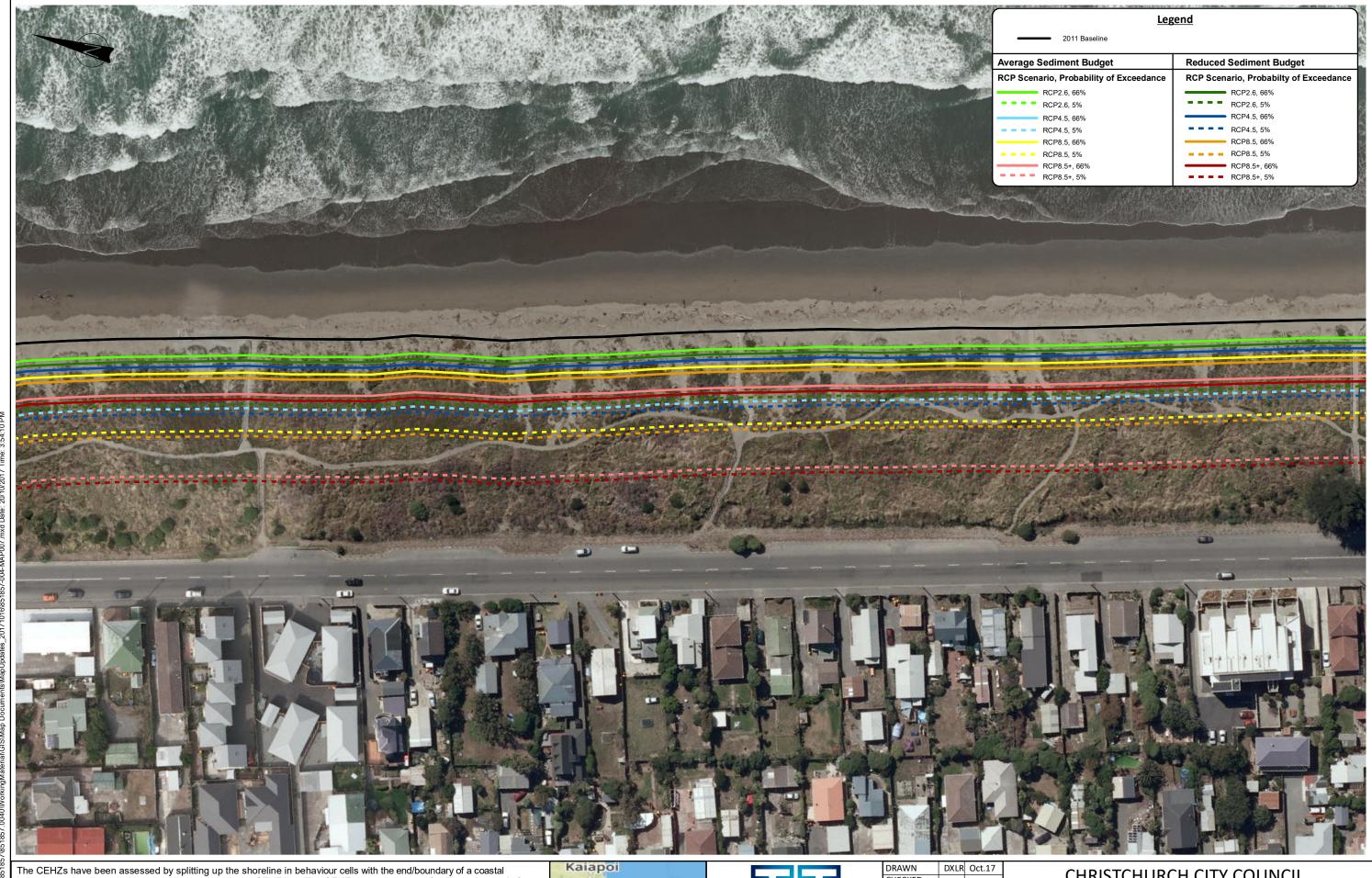
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COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -12(b)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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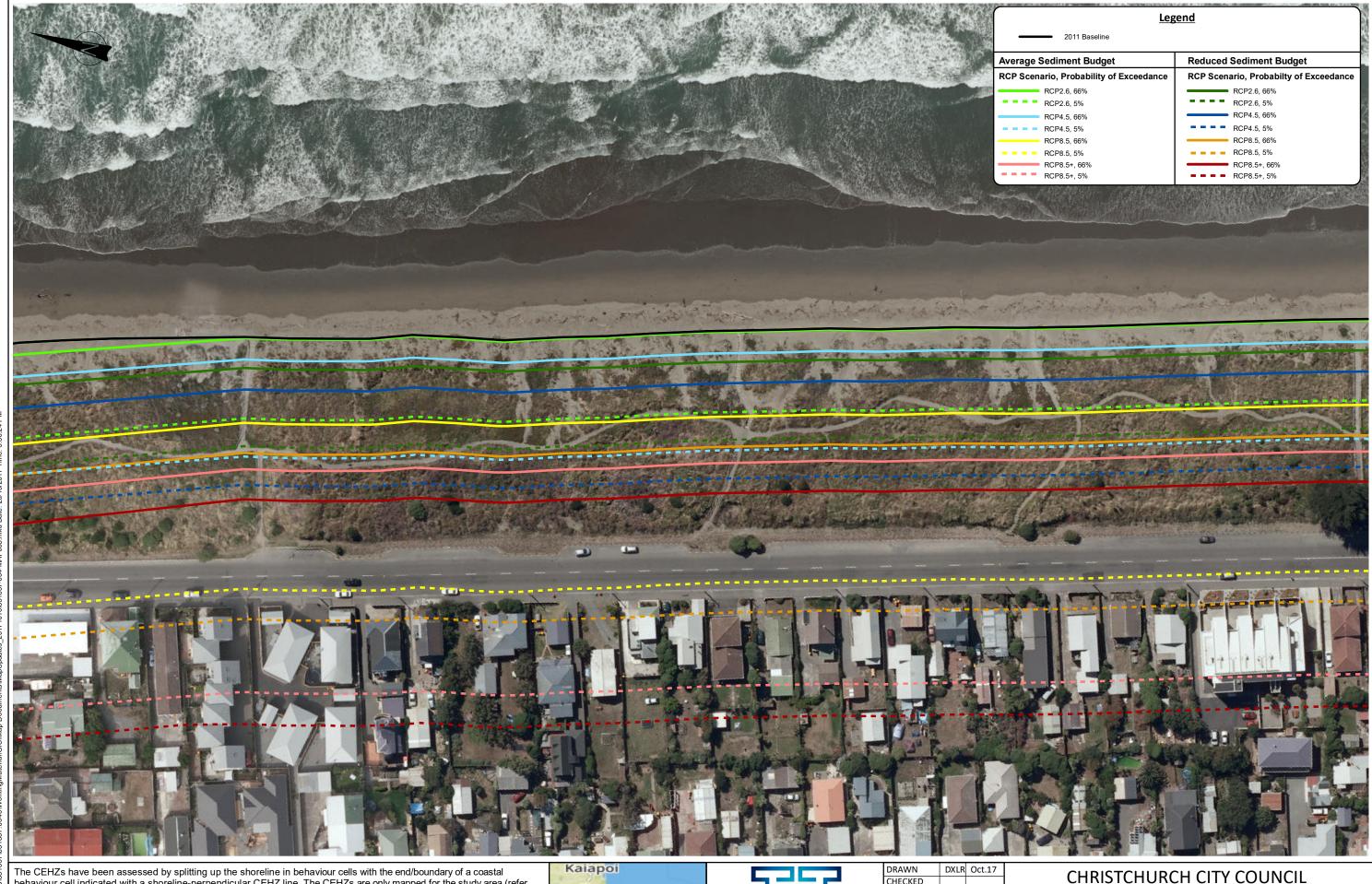
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#### CHRISTCHURCH CITY COUNCIL COASTAL HAZARD ASSESSMENT

Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -13(a)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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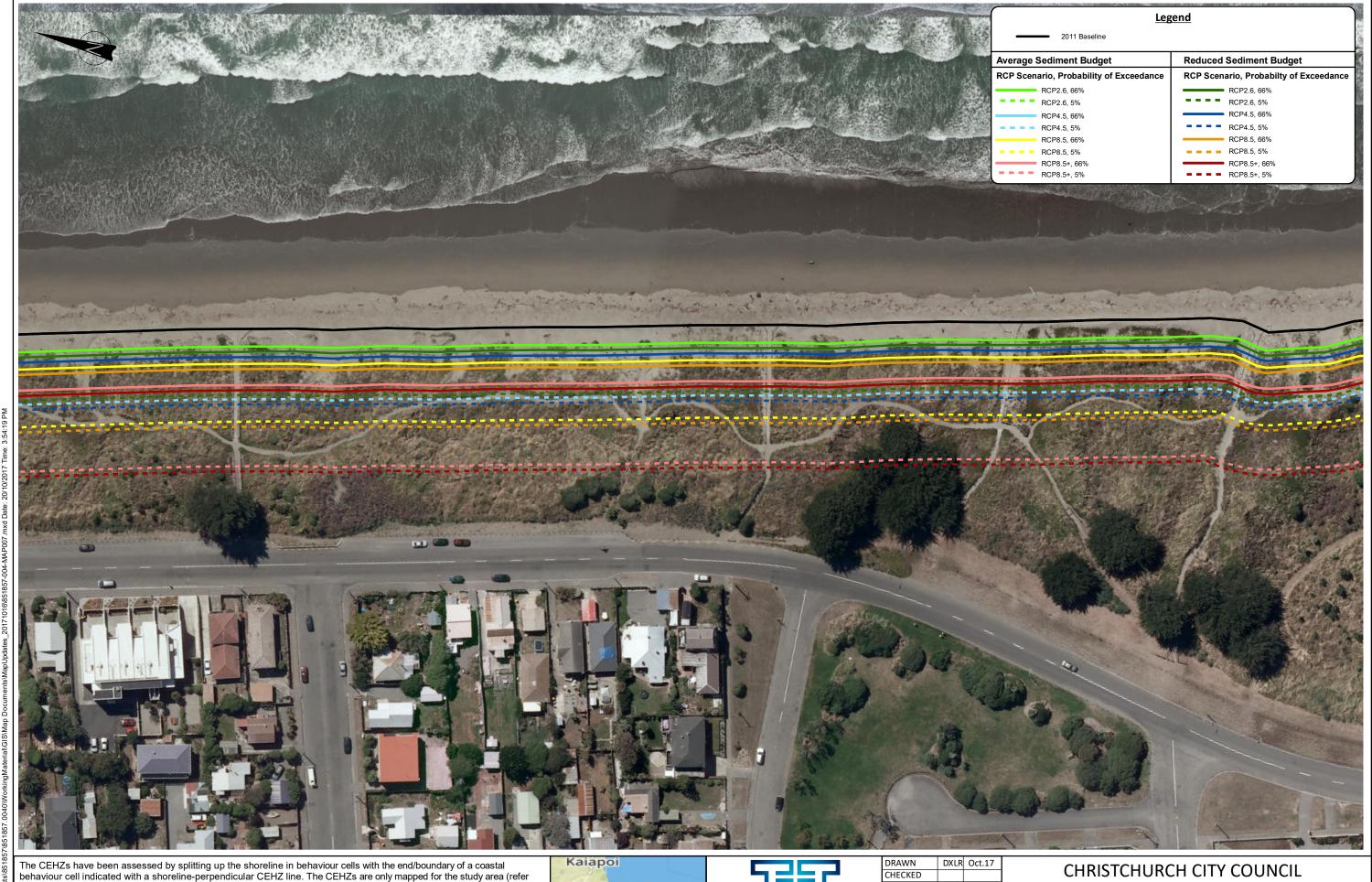
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -13(b)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)





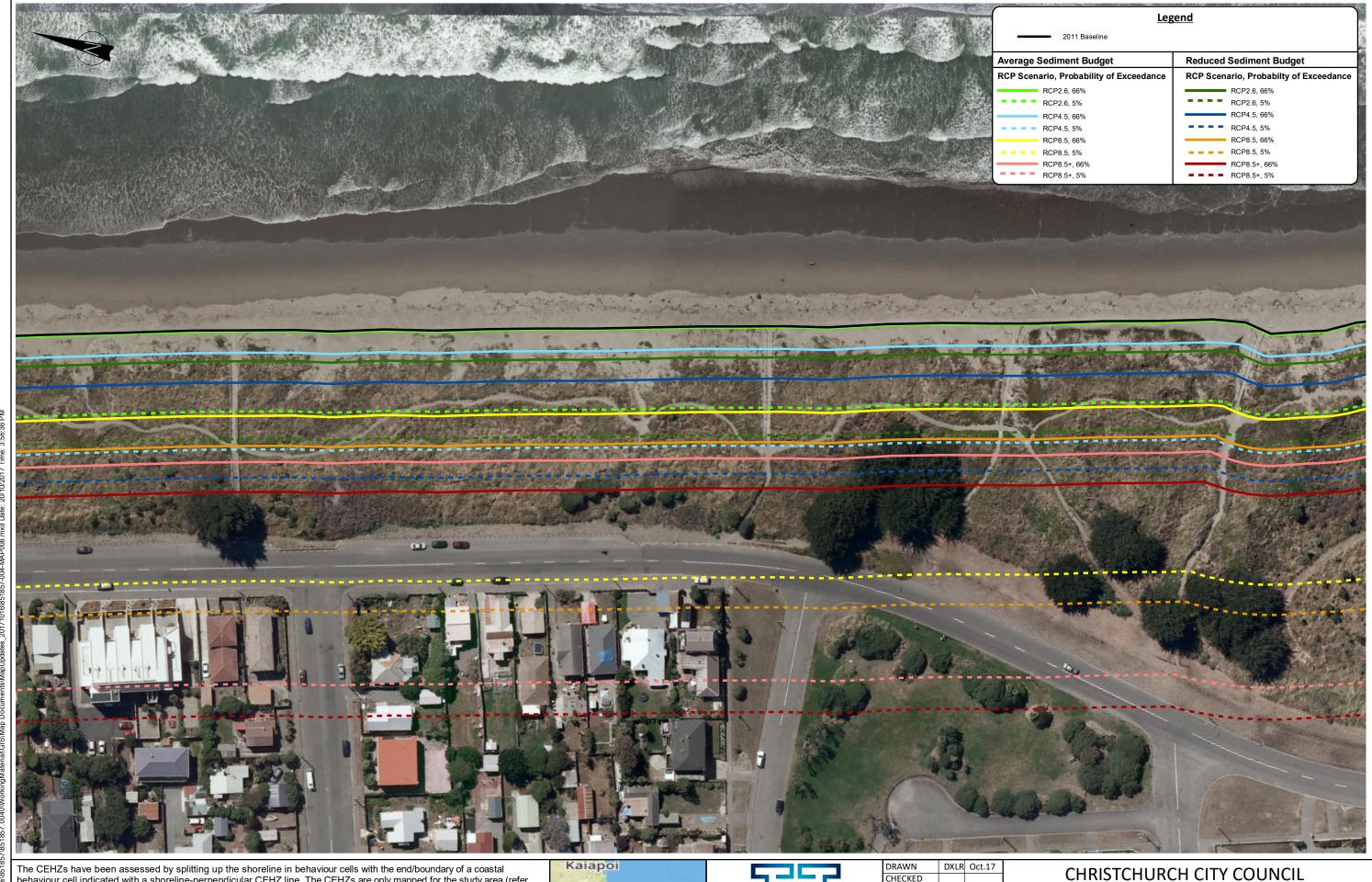
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -14(a)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)





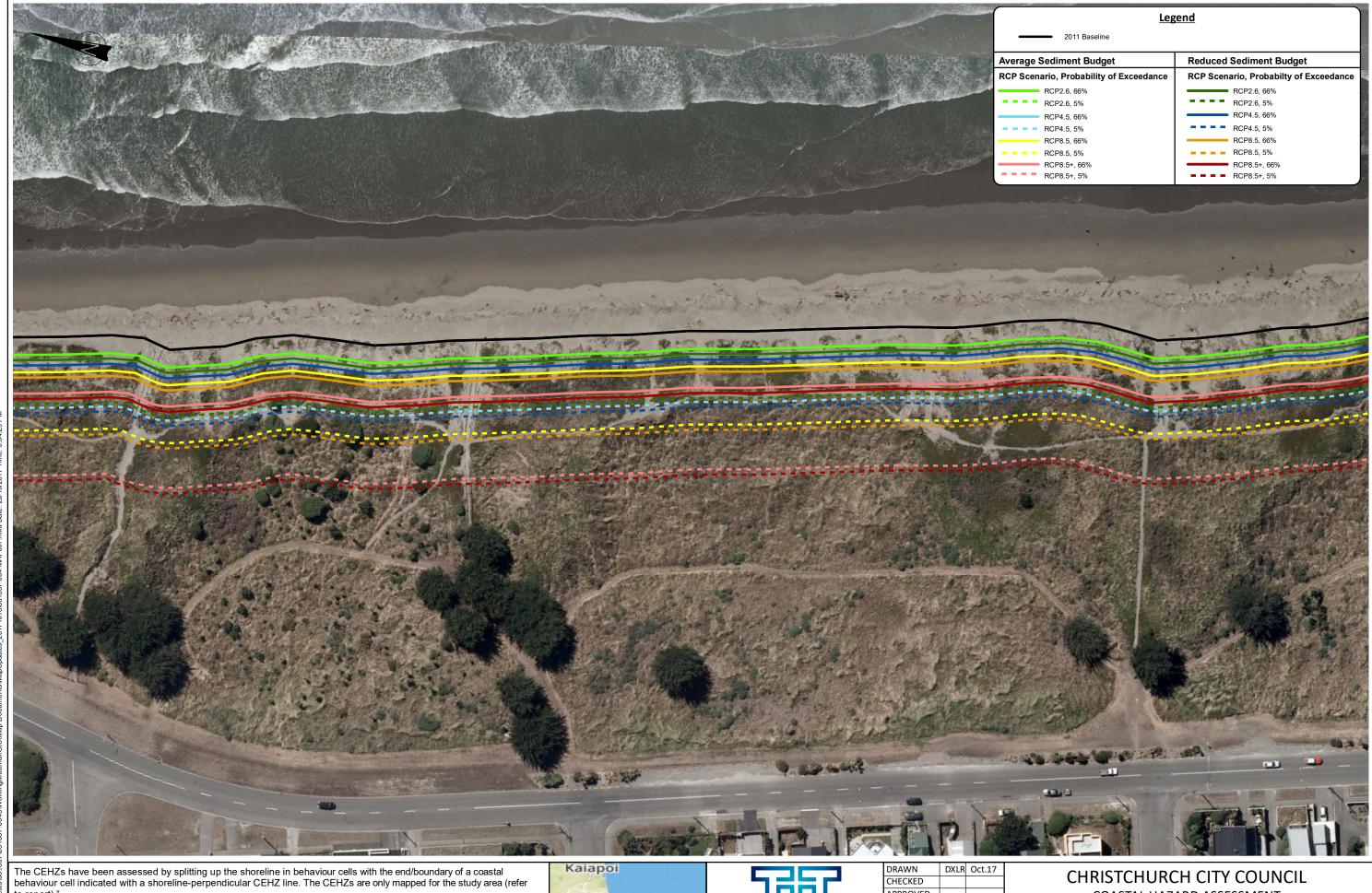
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -14(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



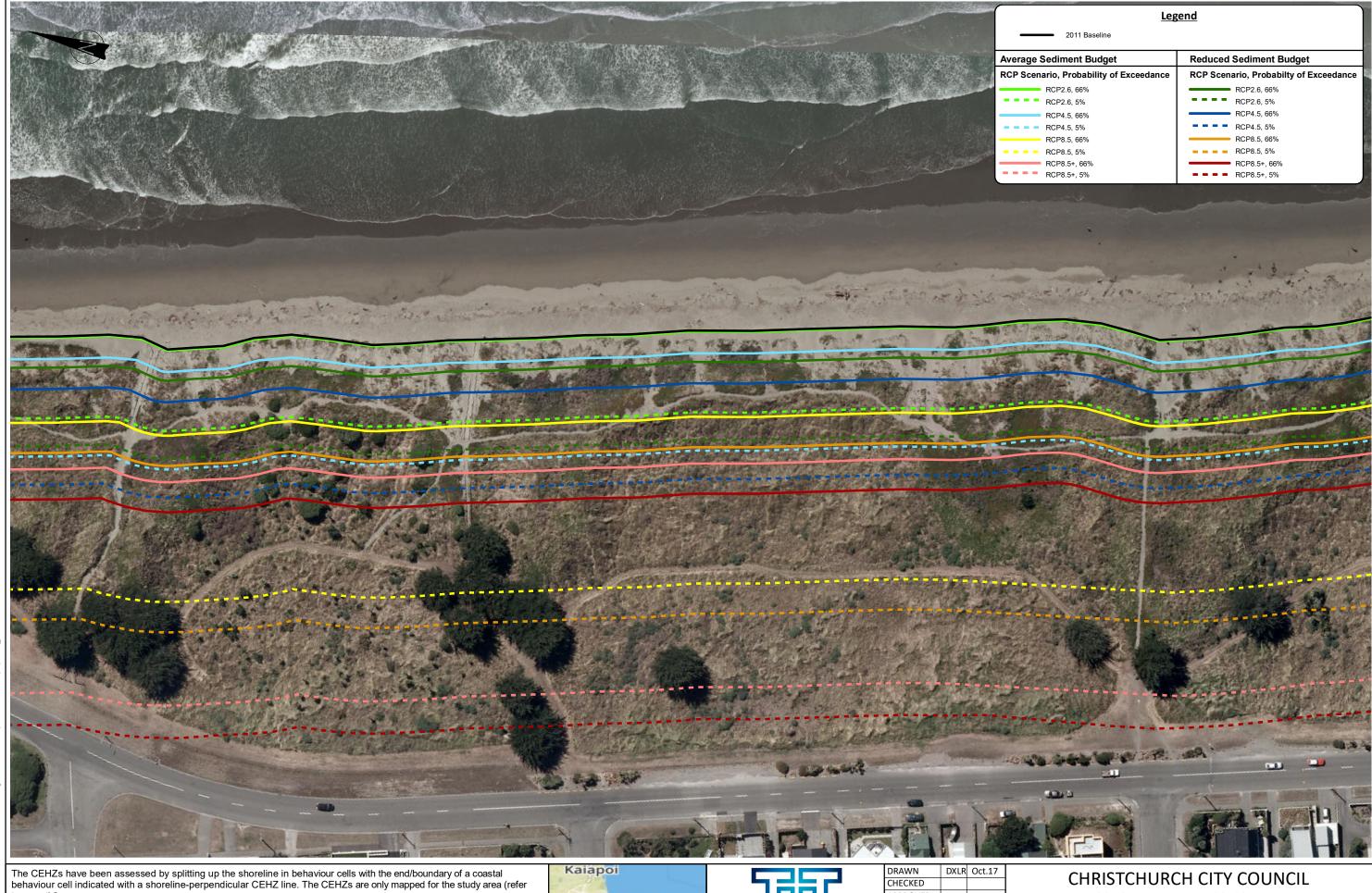
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -15(a)



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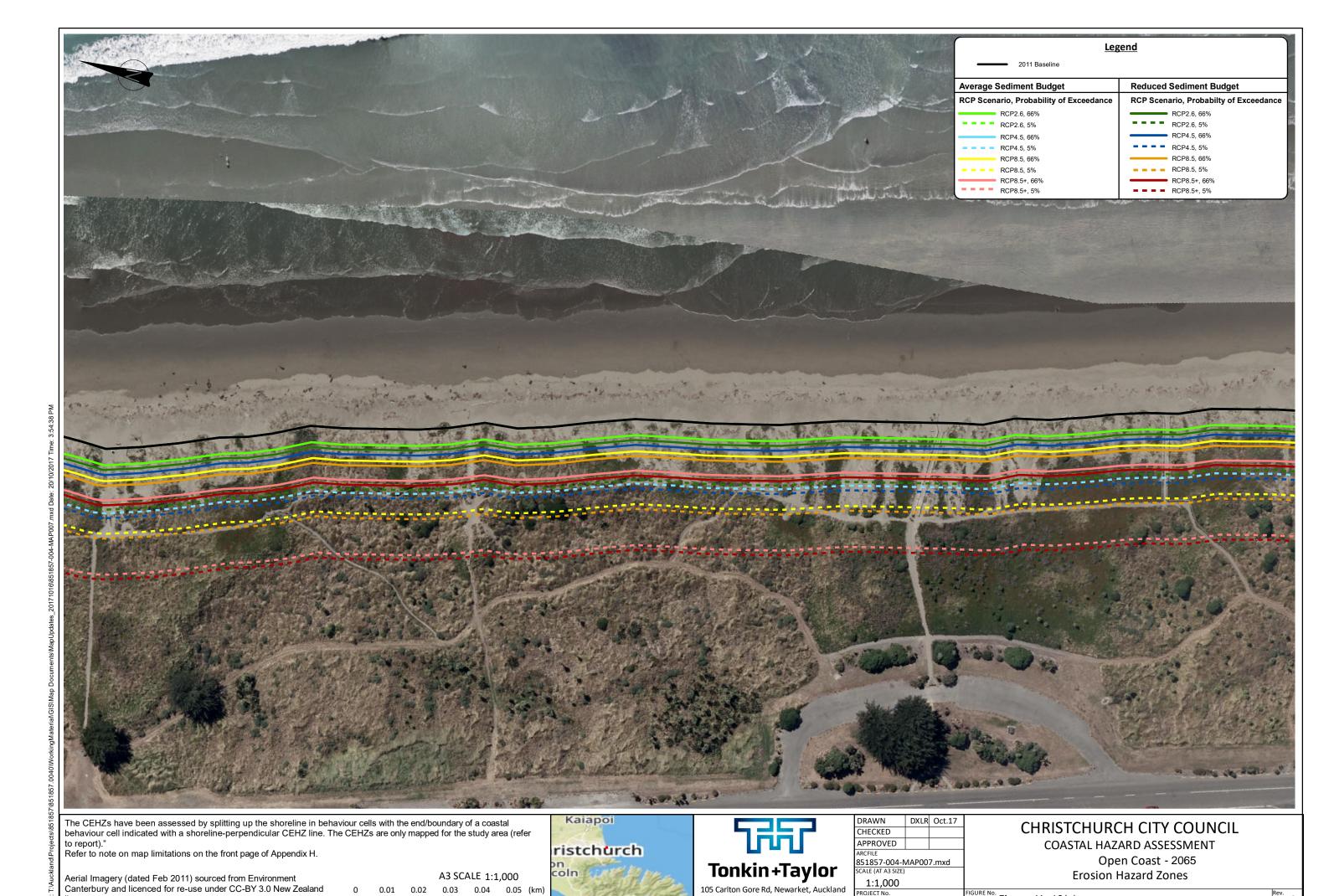
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -15(b)

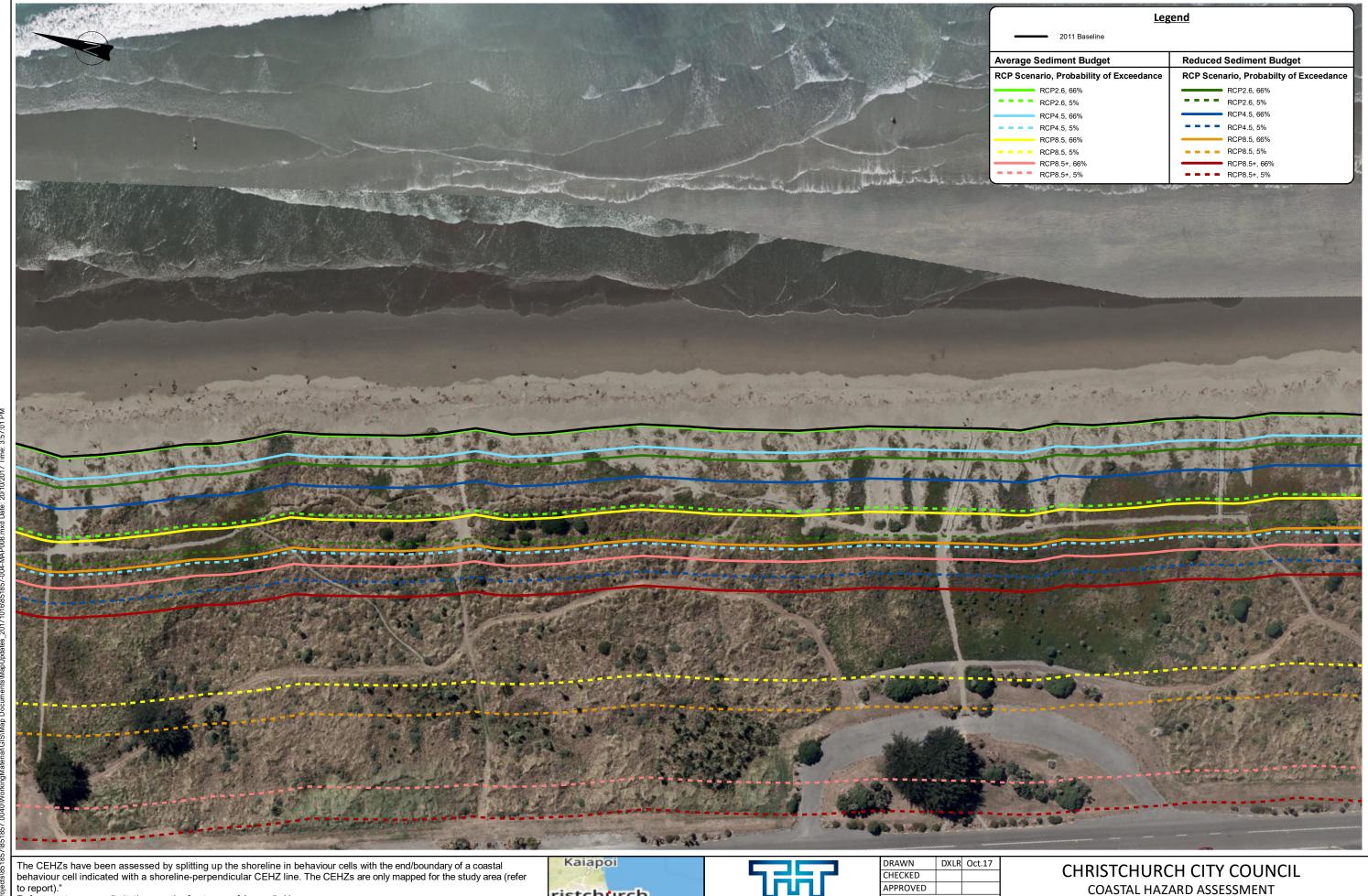


Location Plan

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851857.004

Figure H -16(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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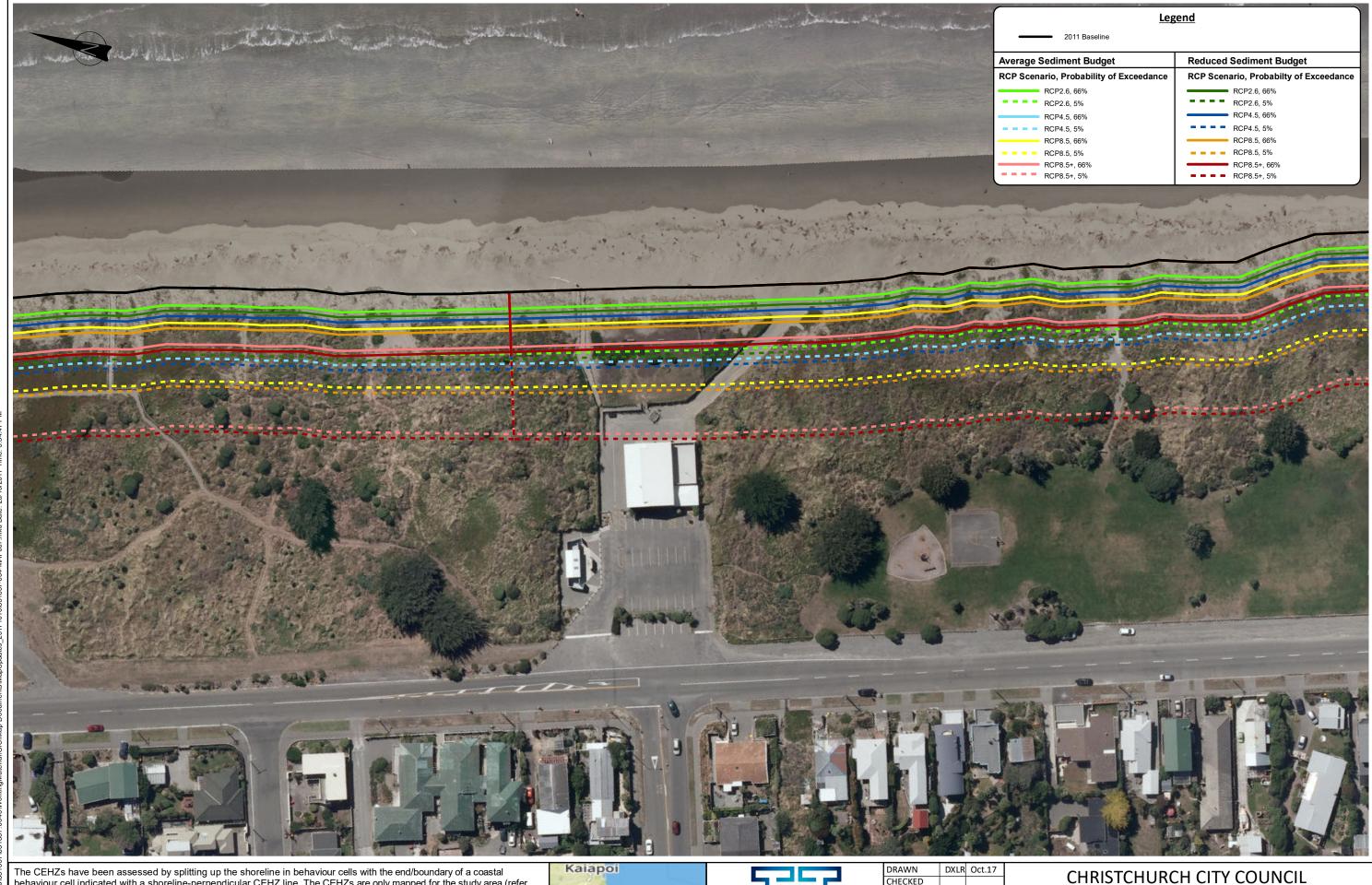
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Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -16(b)



behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -17(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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CHRISTCHURCH CITY COUNCIL COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -17(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -18(a)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
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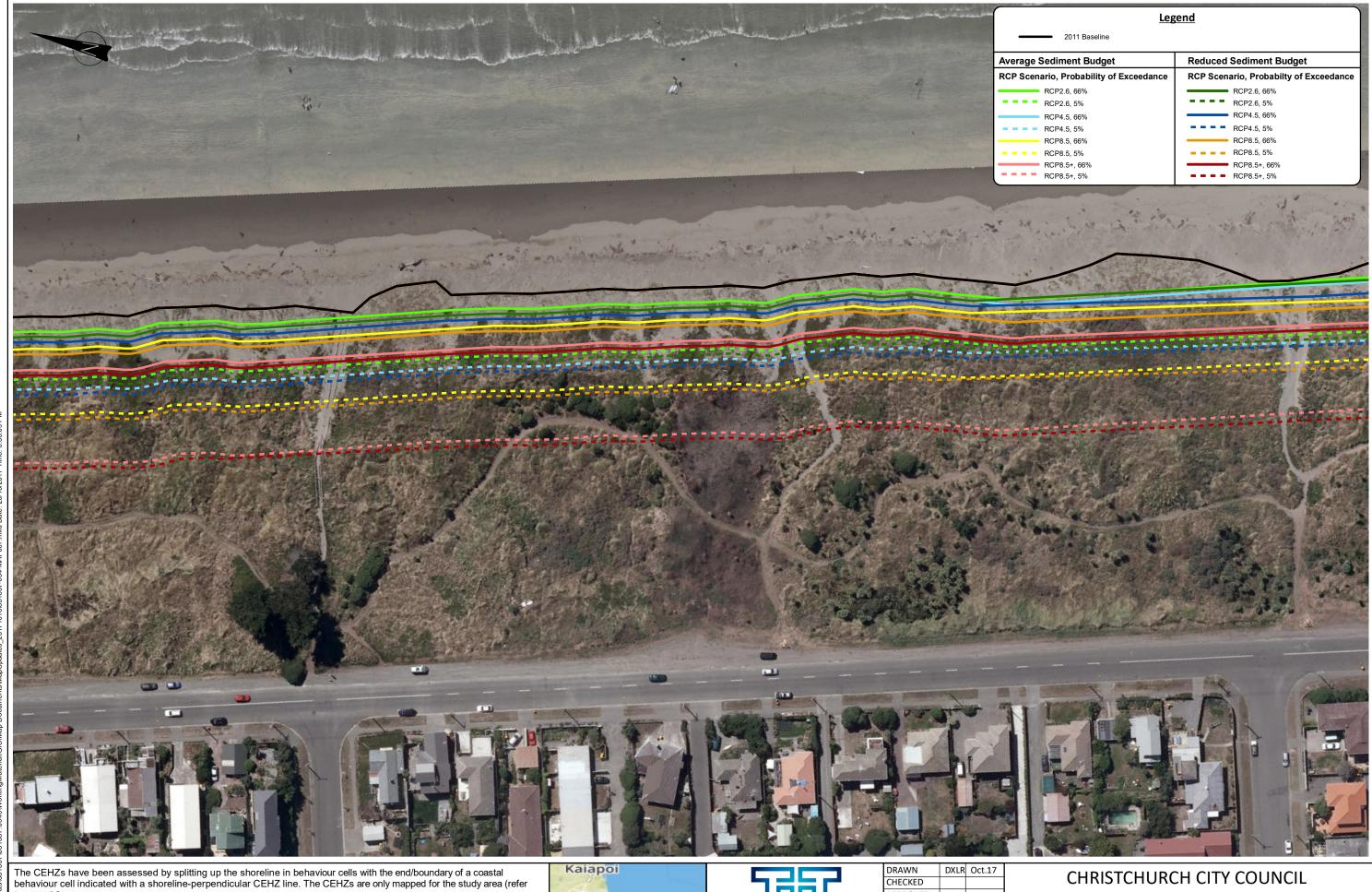
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CHRISTCHURCH CITY COUNCIL COASTAL HAZARD ASSESSMENT

Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -18(b)



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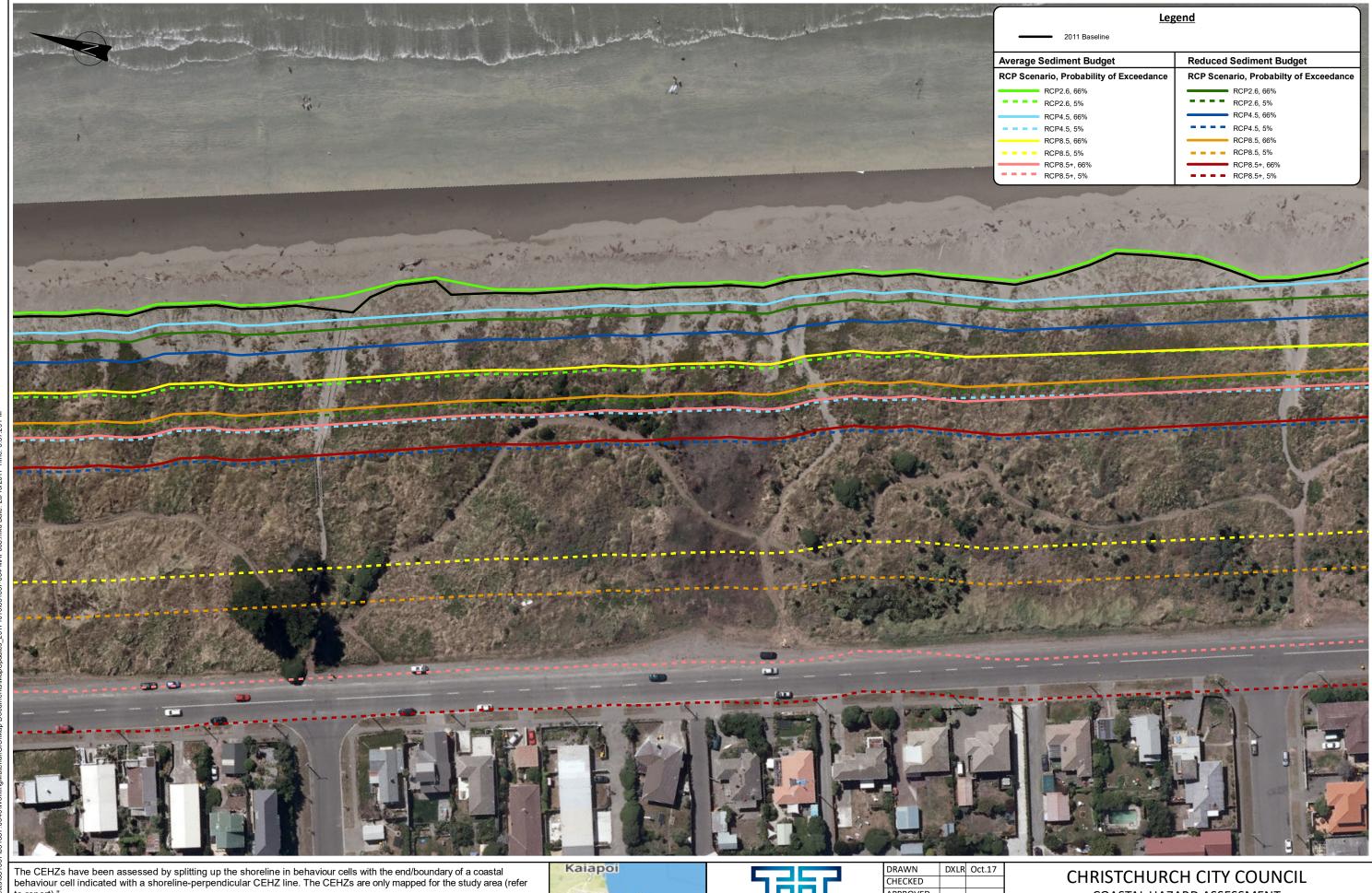
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#### COASTAL HAZARD ASSESSMENT Open Coast - 2065

**Erosion Hazard Zones** 

gure H -19(a)



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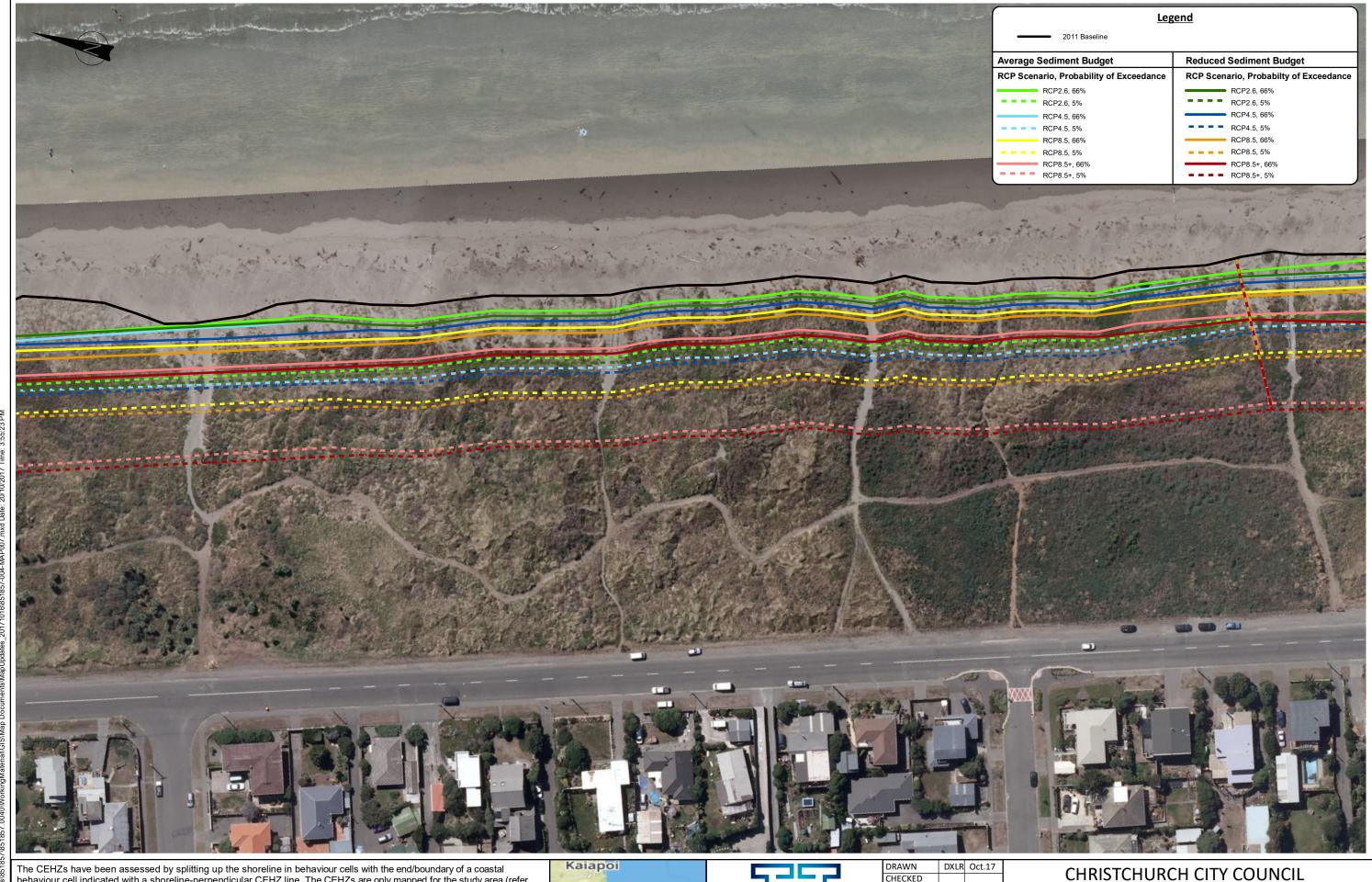
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Open Coast - 2120 **Erosion Hazard Zones** 

COASTAL HAZARD ASSESSMENT

Figure H -19(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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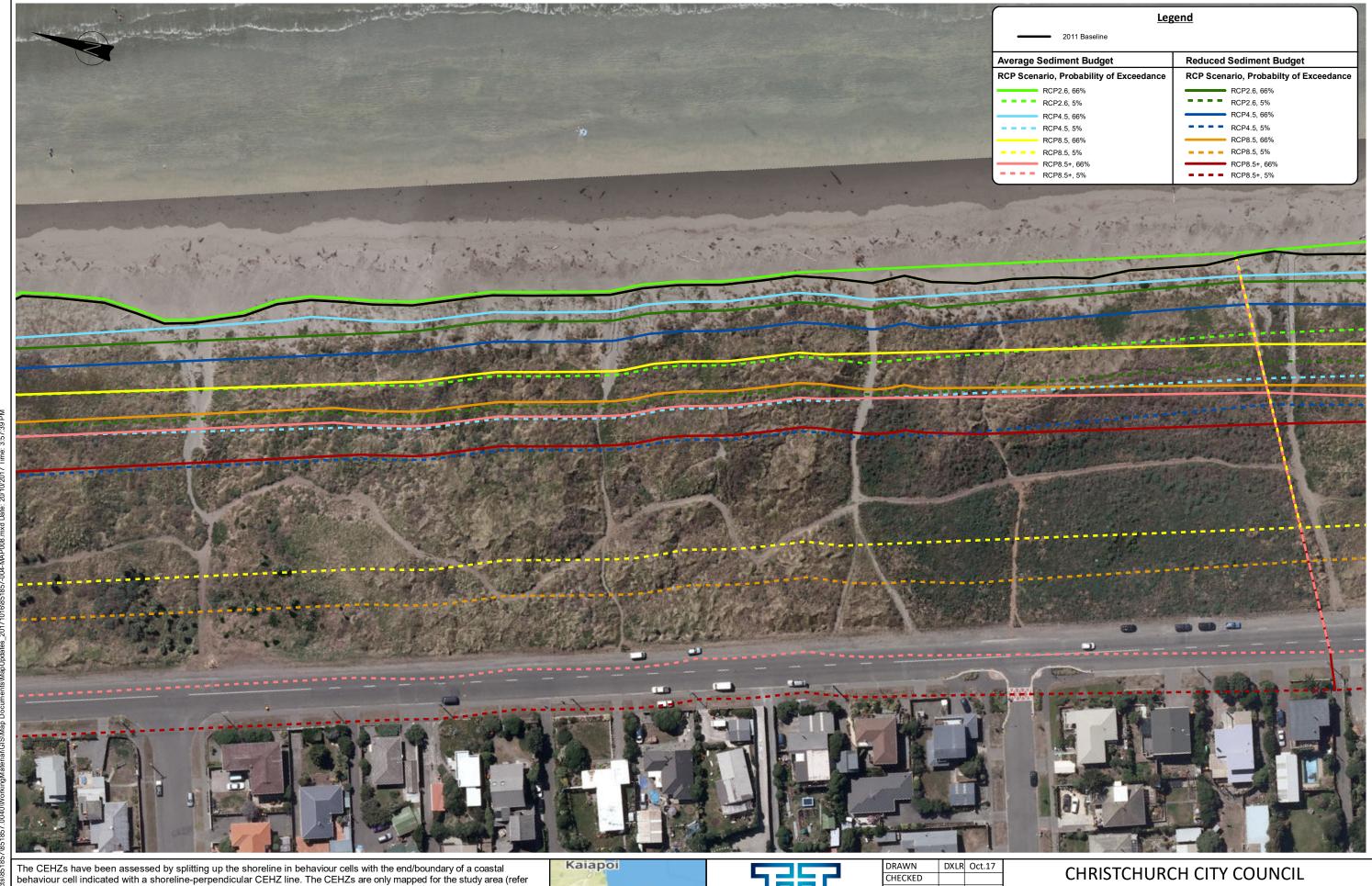
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -20(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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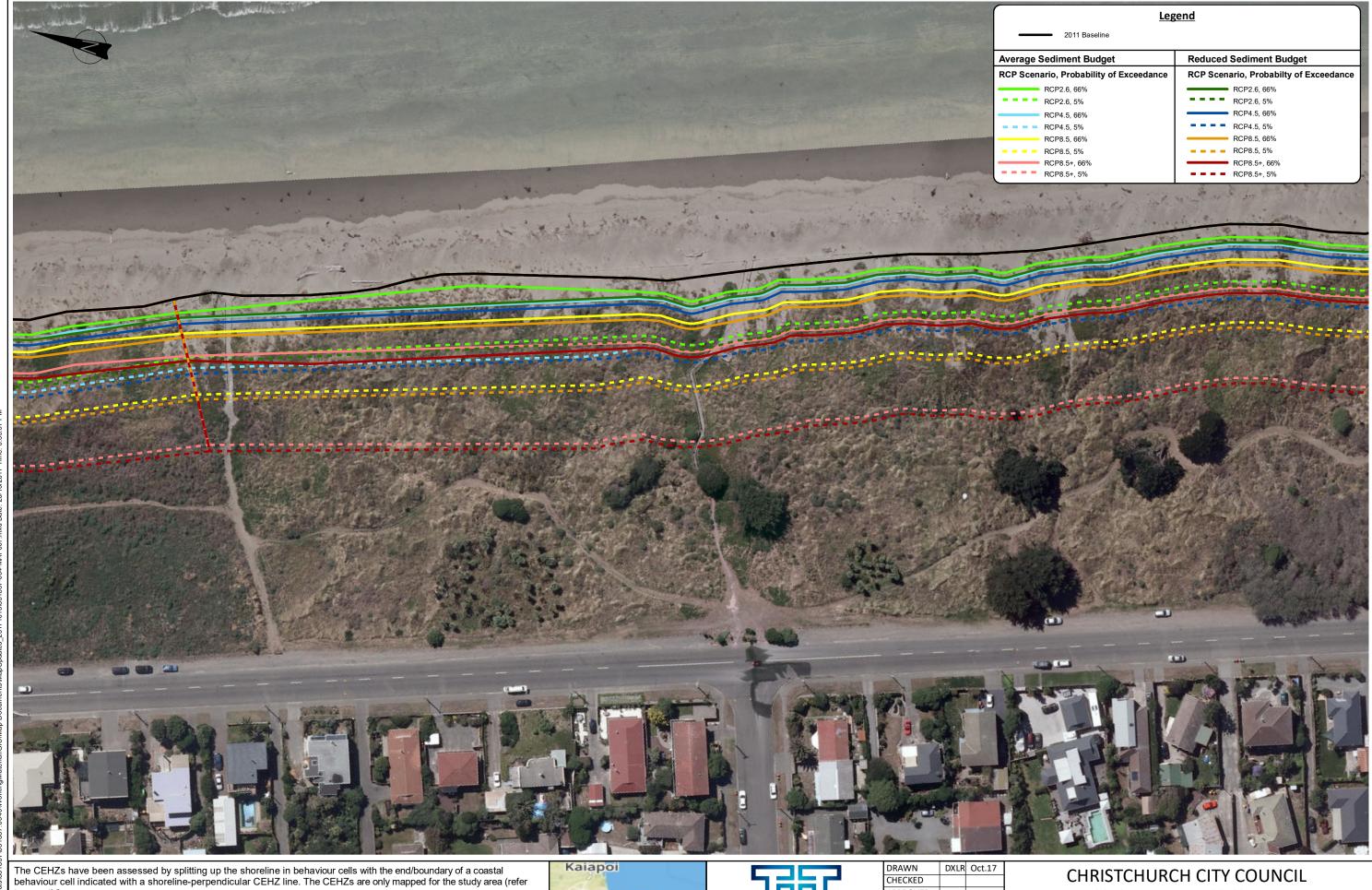
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -20(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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### COASTAL HAZARD ASSESSMENT Open Coast - 2065

**Erosion Hazard Zones** 

Figure H -21(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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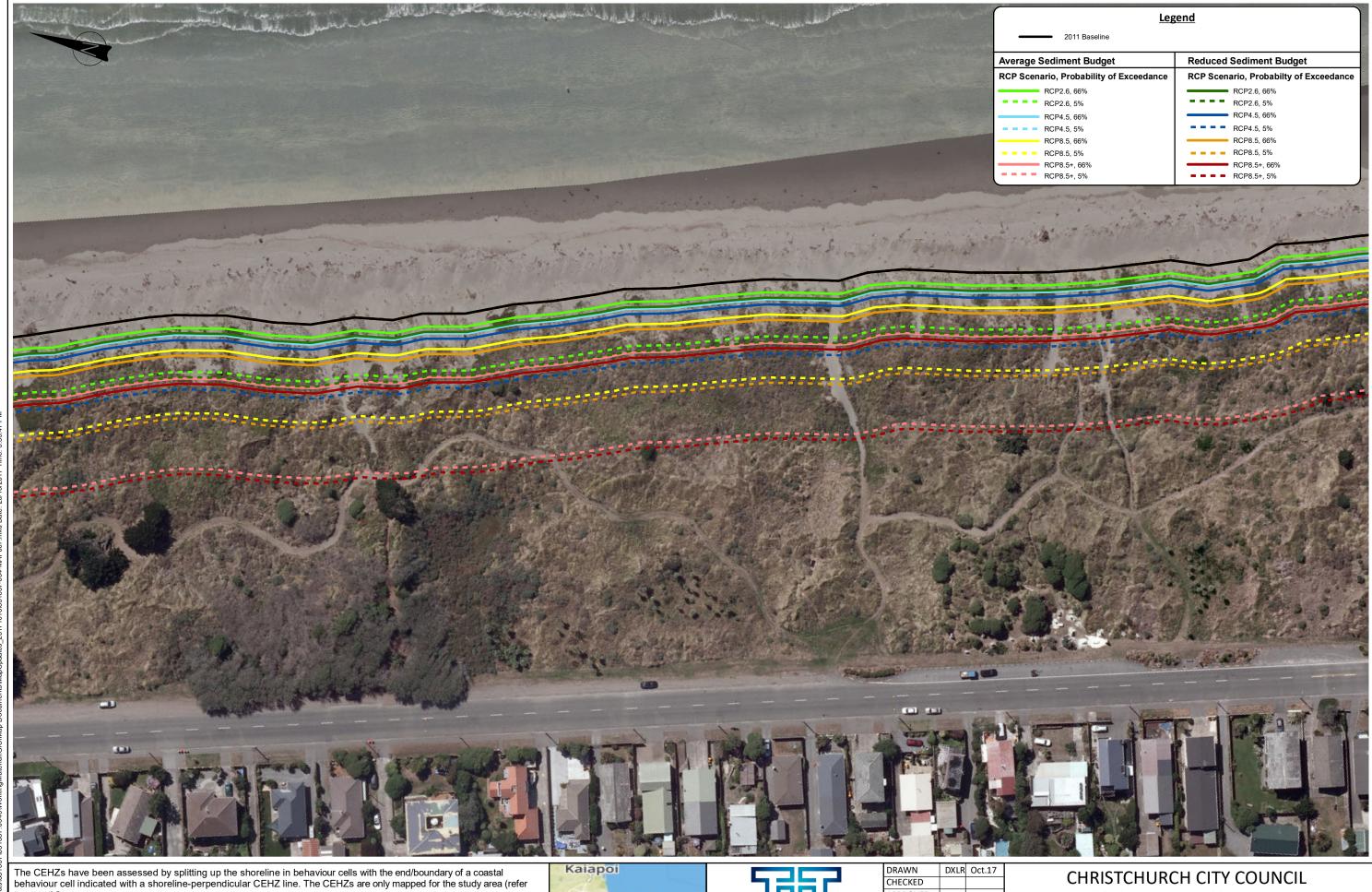
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### COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -21(b)



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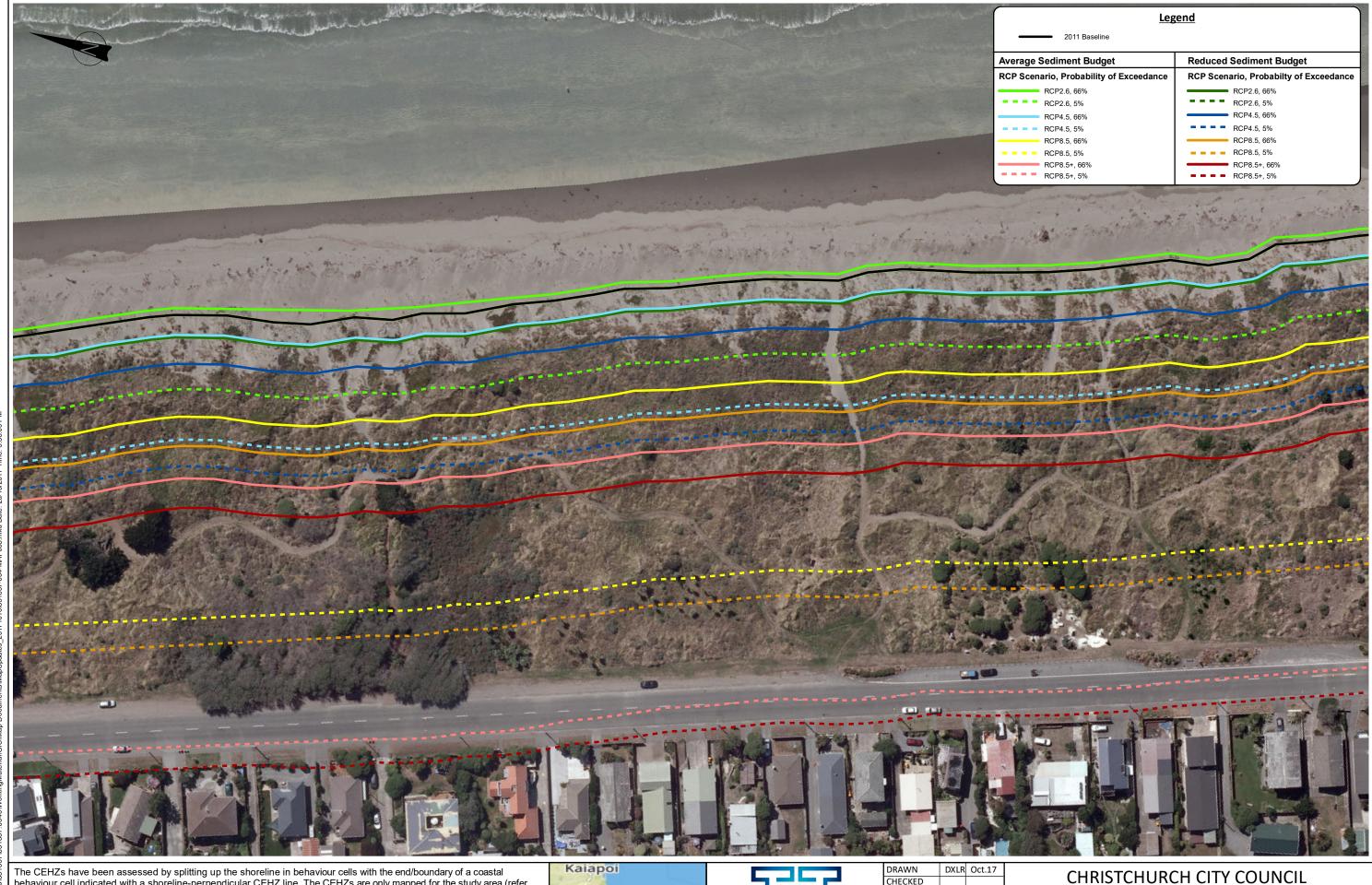
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**Erosion Hazard Zones** 

COASTAL HAZARD ASSESSMENT Open Coast - 2065

Figure H -22(a)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report)."
Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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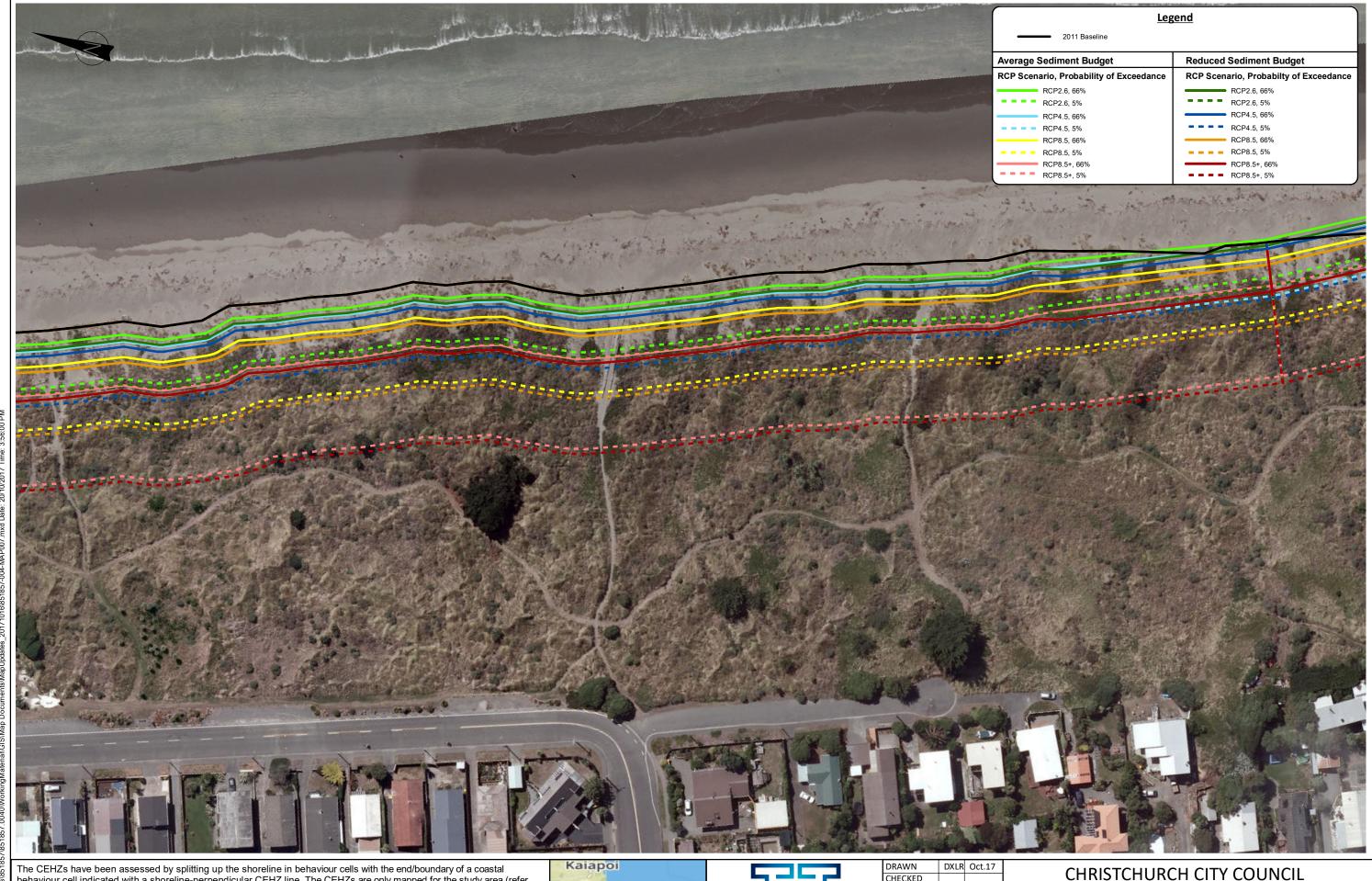
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -22(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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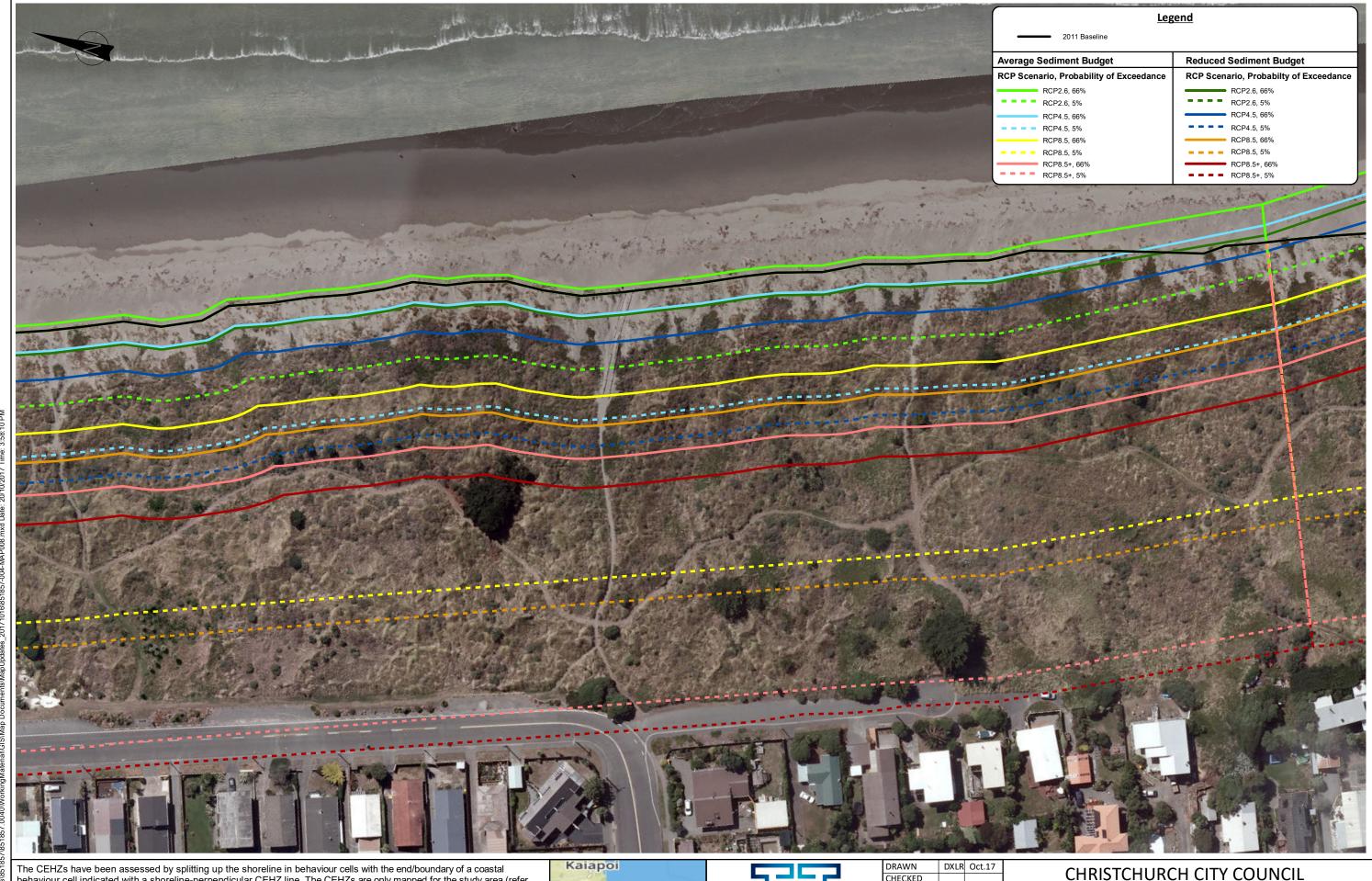
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -23(a)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer

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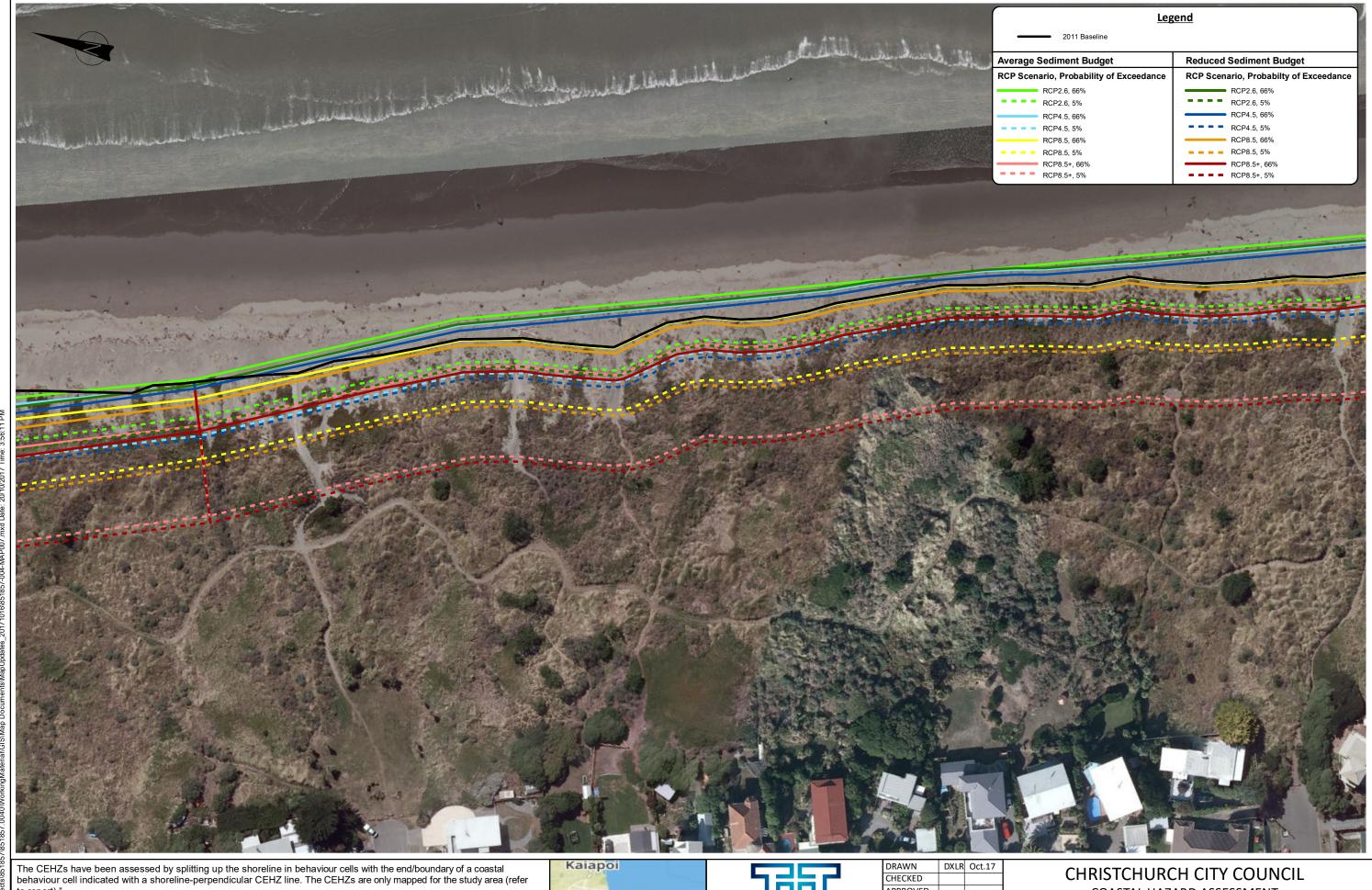
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -23(b)



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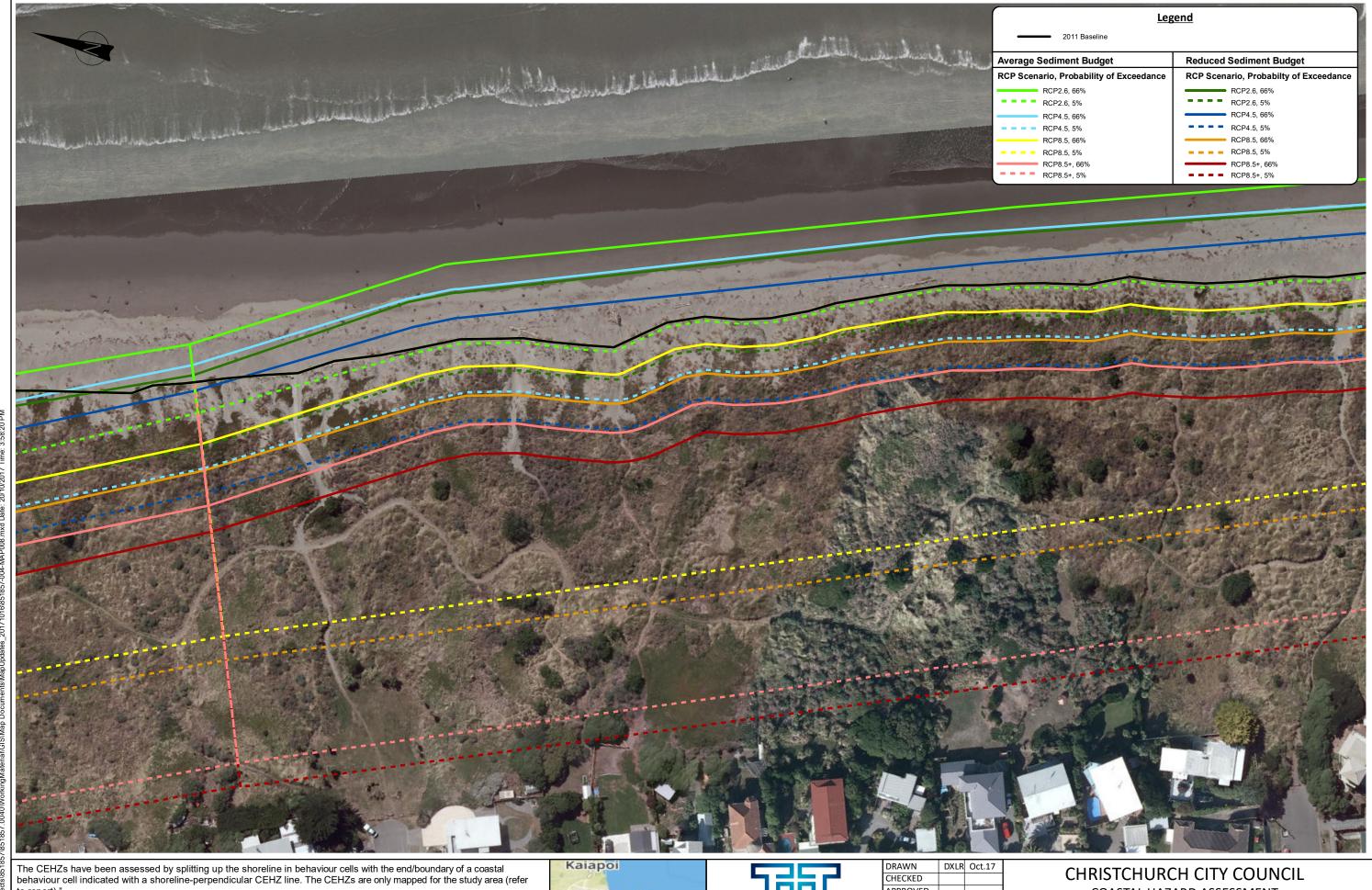
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#### COASTAL HAZARD ASSESSMENT Open Coast - 2065

**Erosion Hazard Zones** 

Figure H -24(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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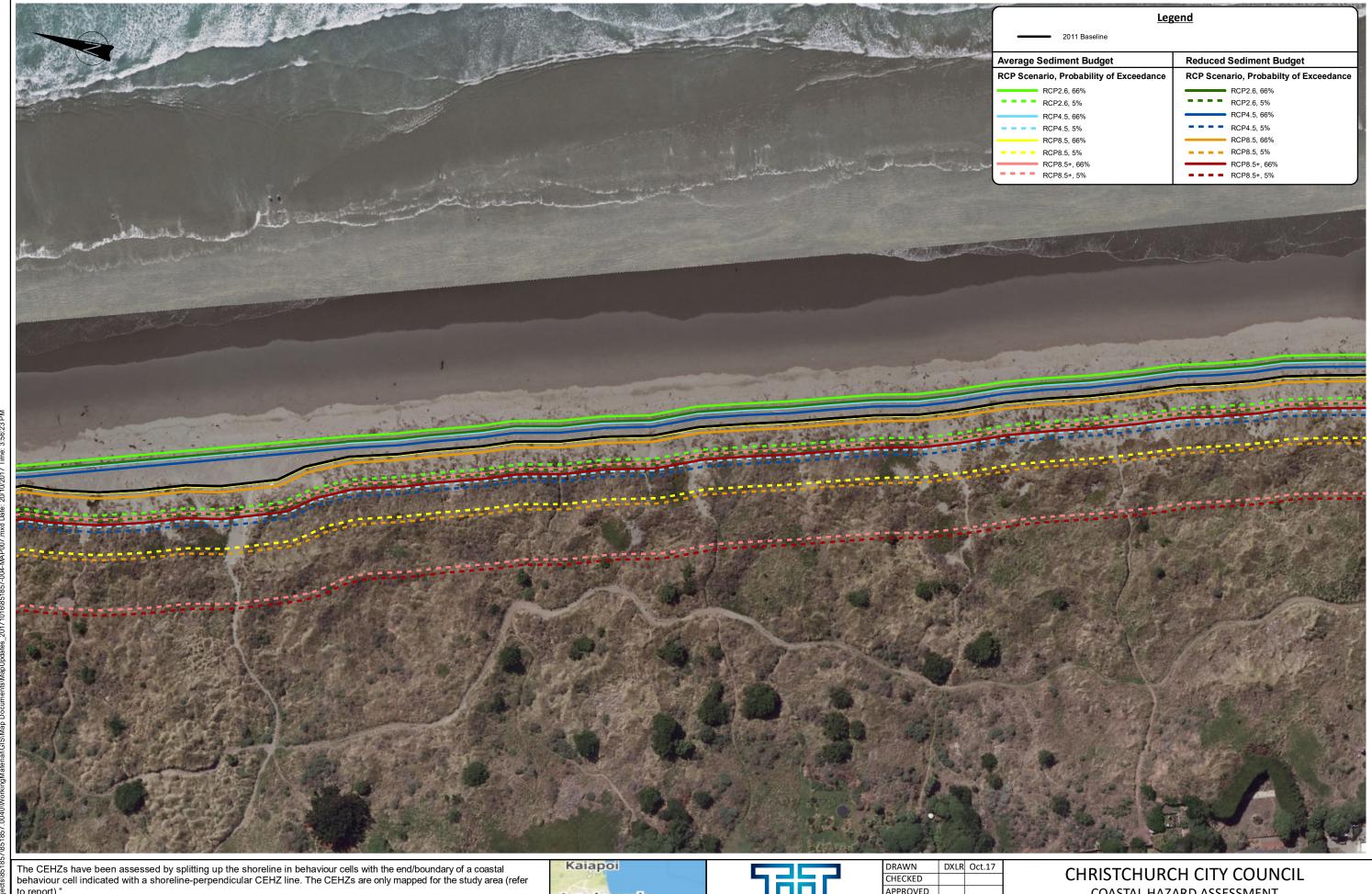
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COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -24(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)

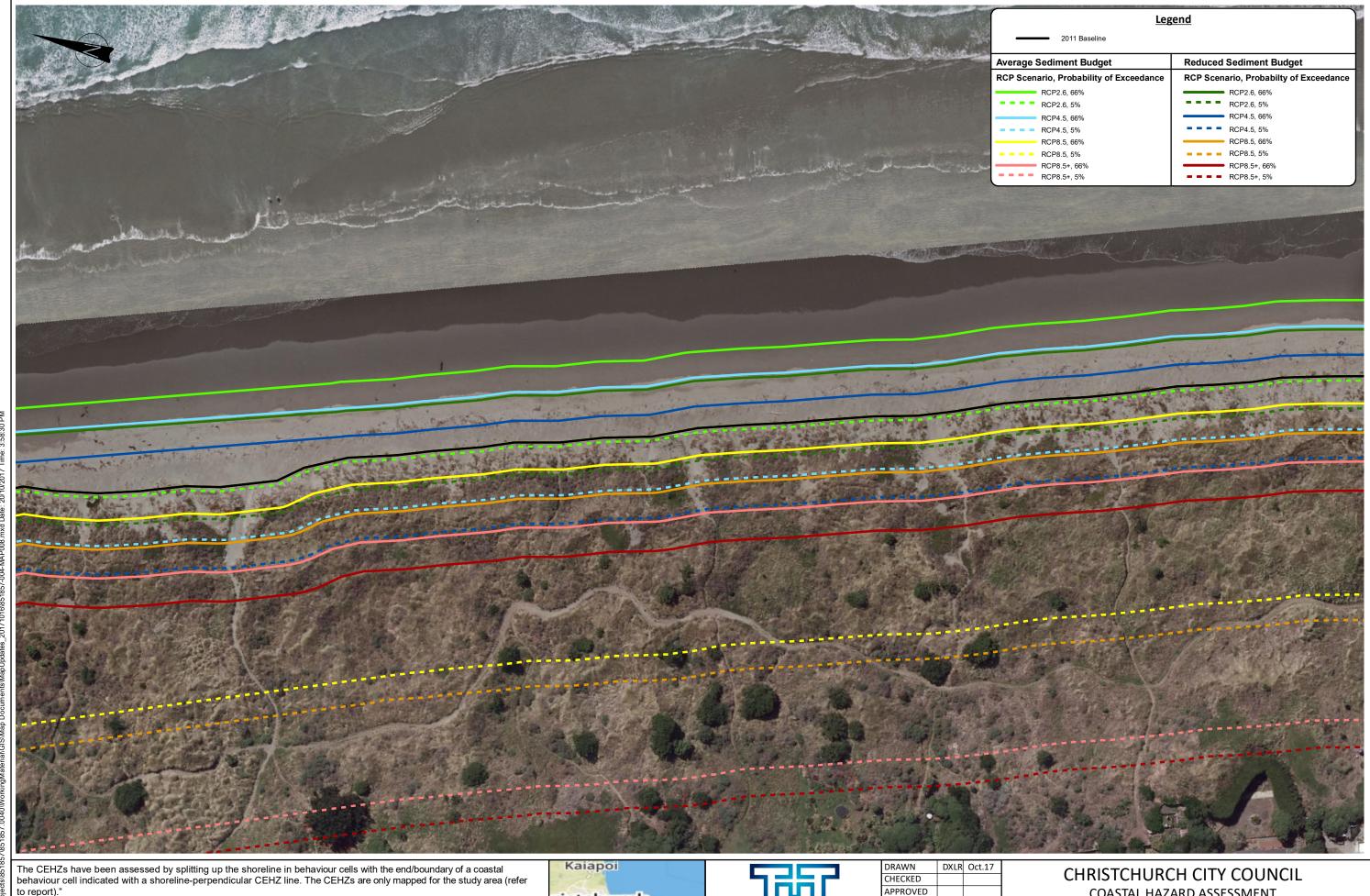


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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -25(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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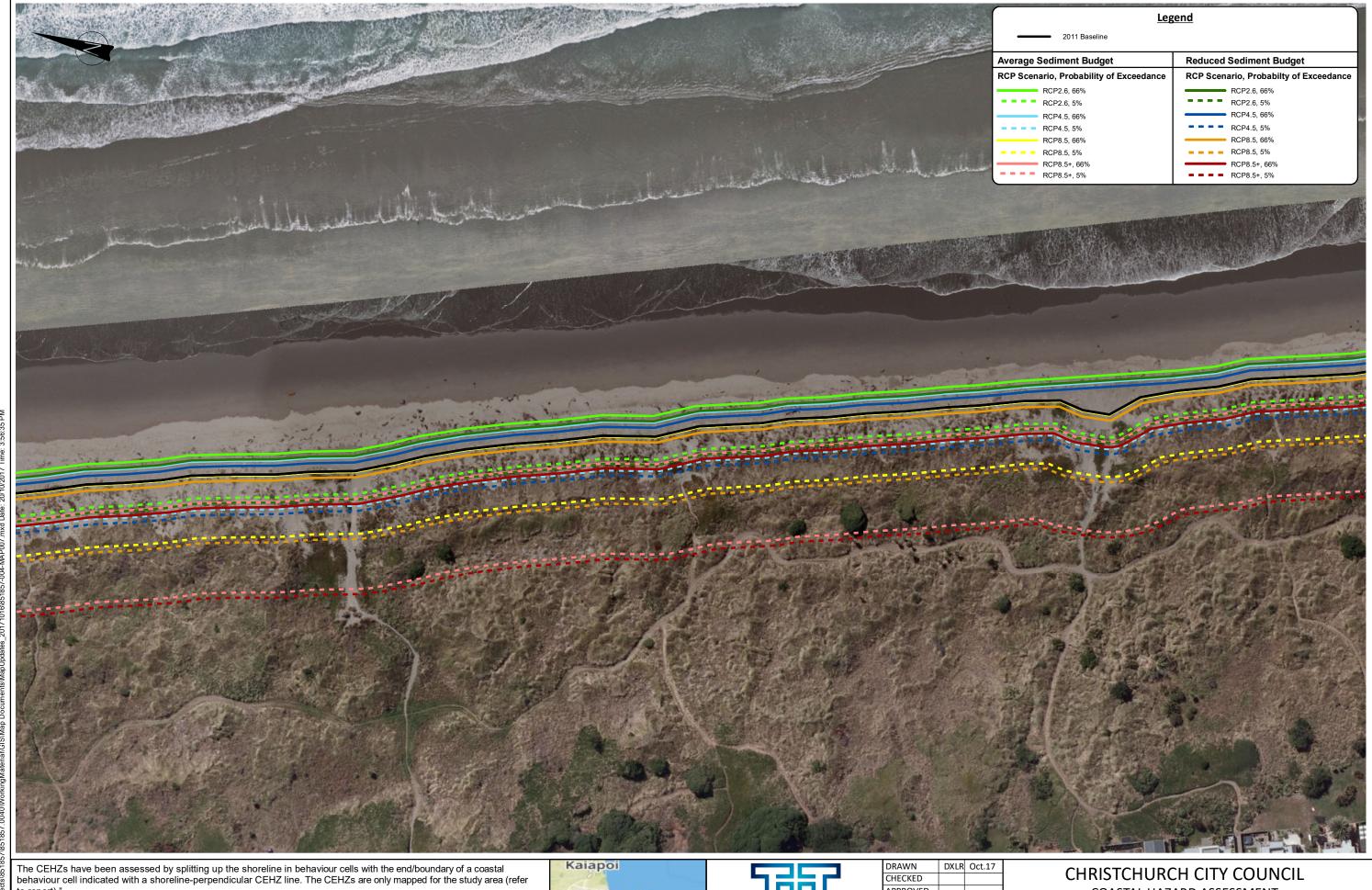
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### COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -25(b)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)





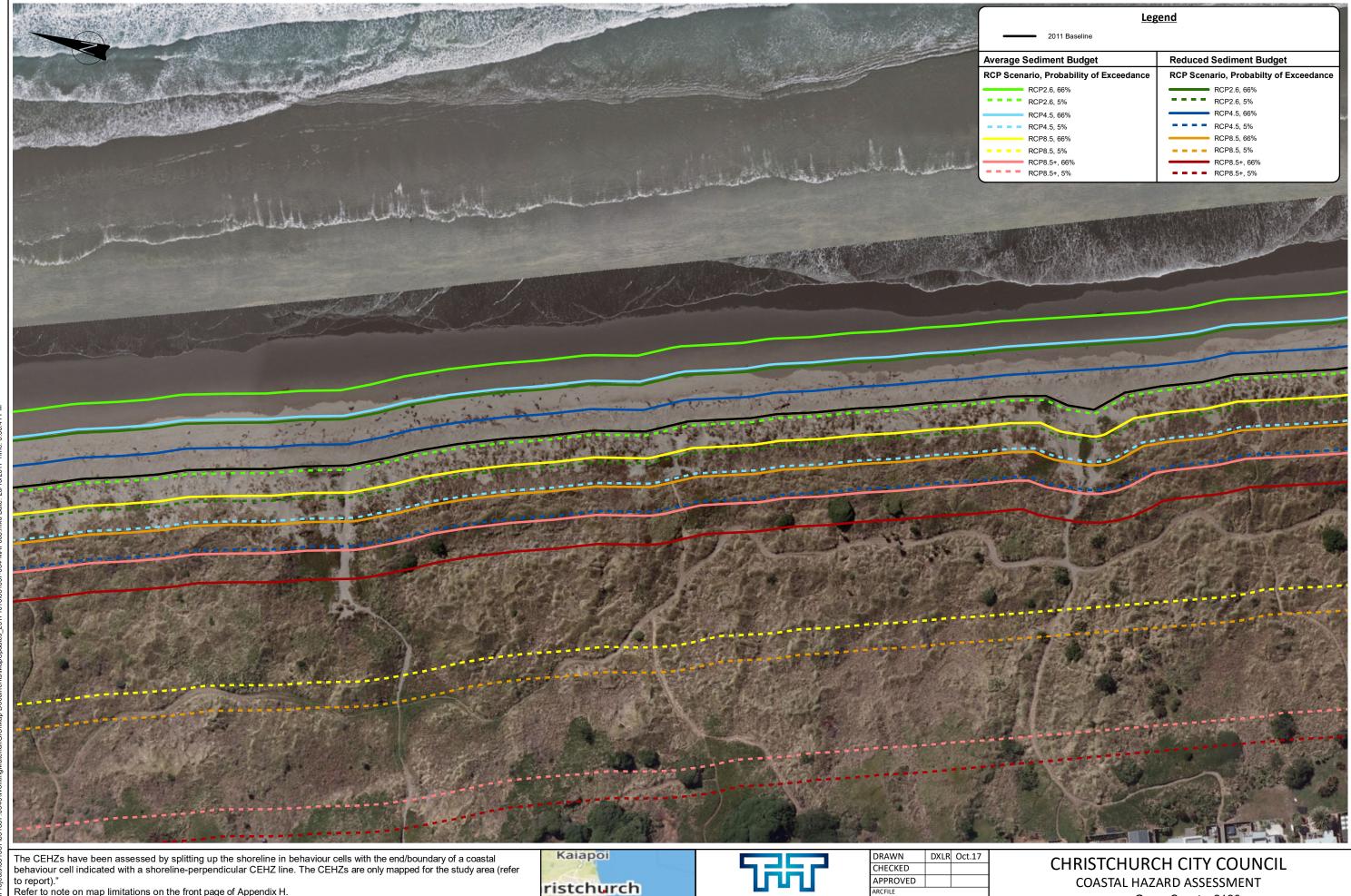
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -26(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)

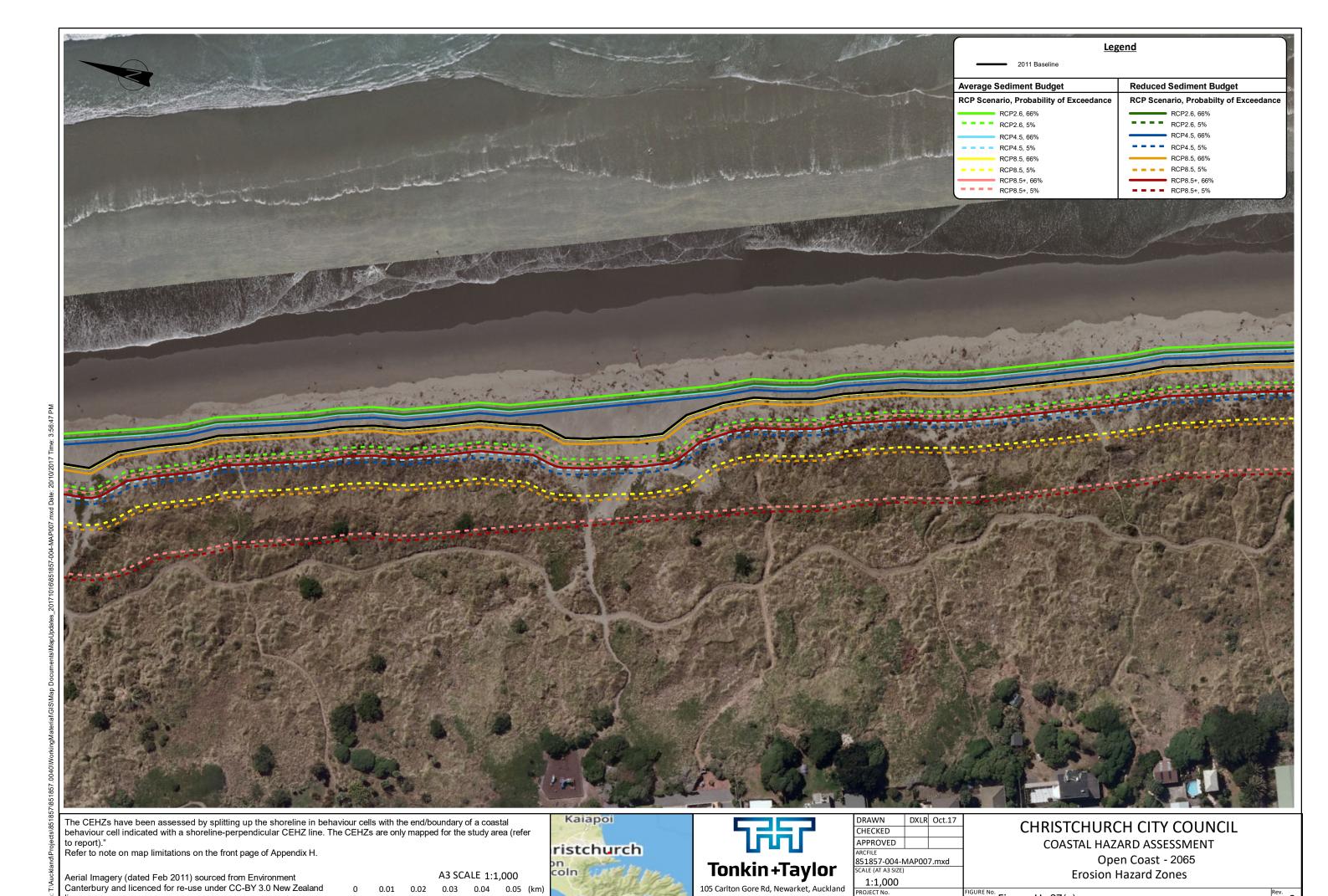




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	Erosion Hazard Zones

Figure H -26(b)

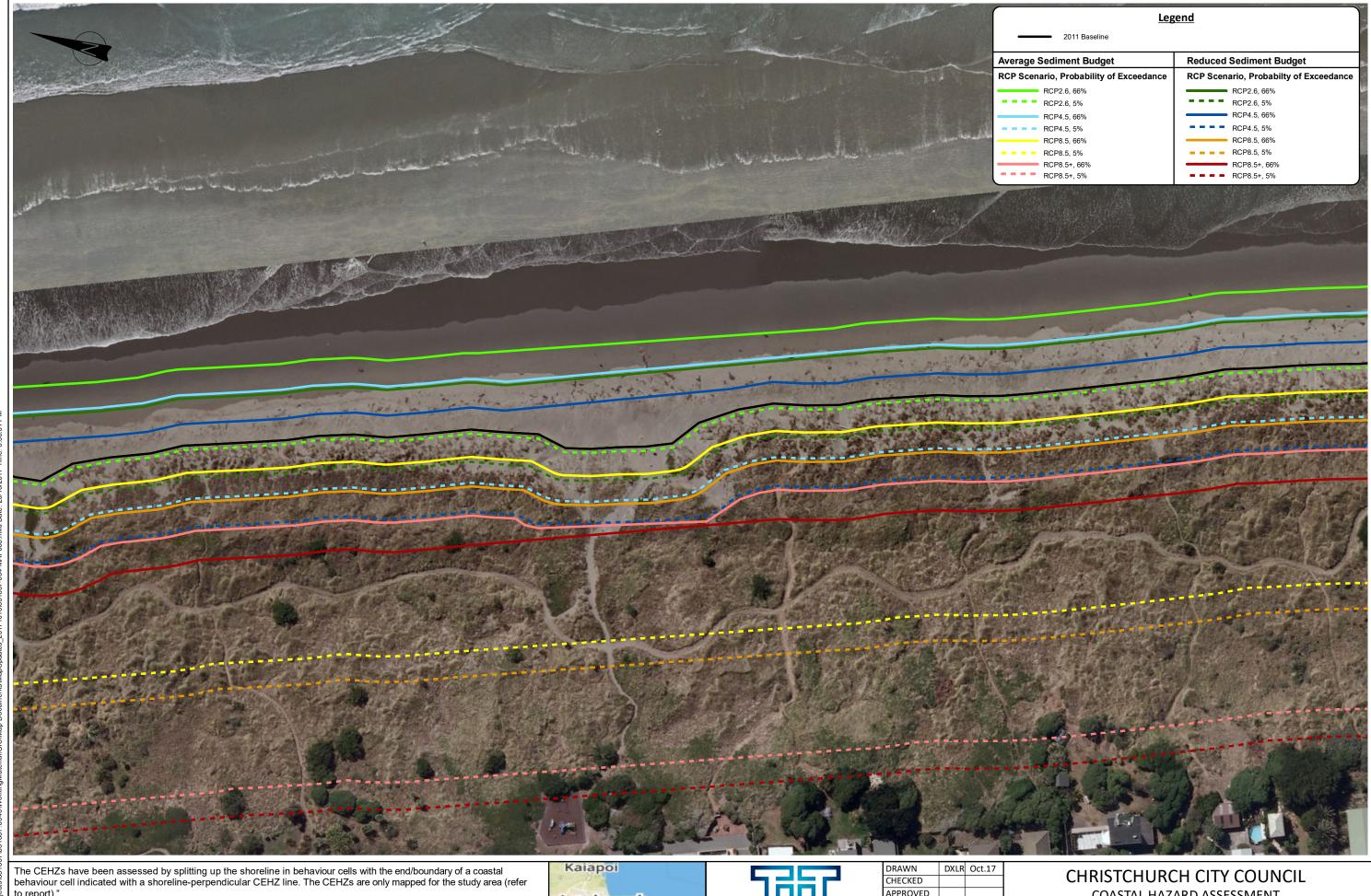


**Location Plan** 

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Figure H -27(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)





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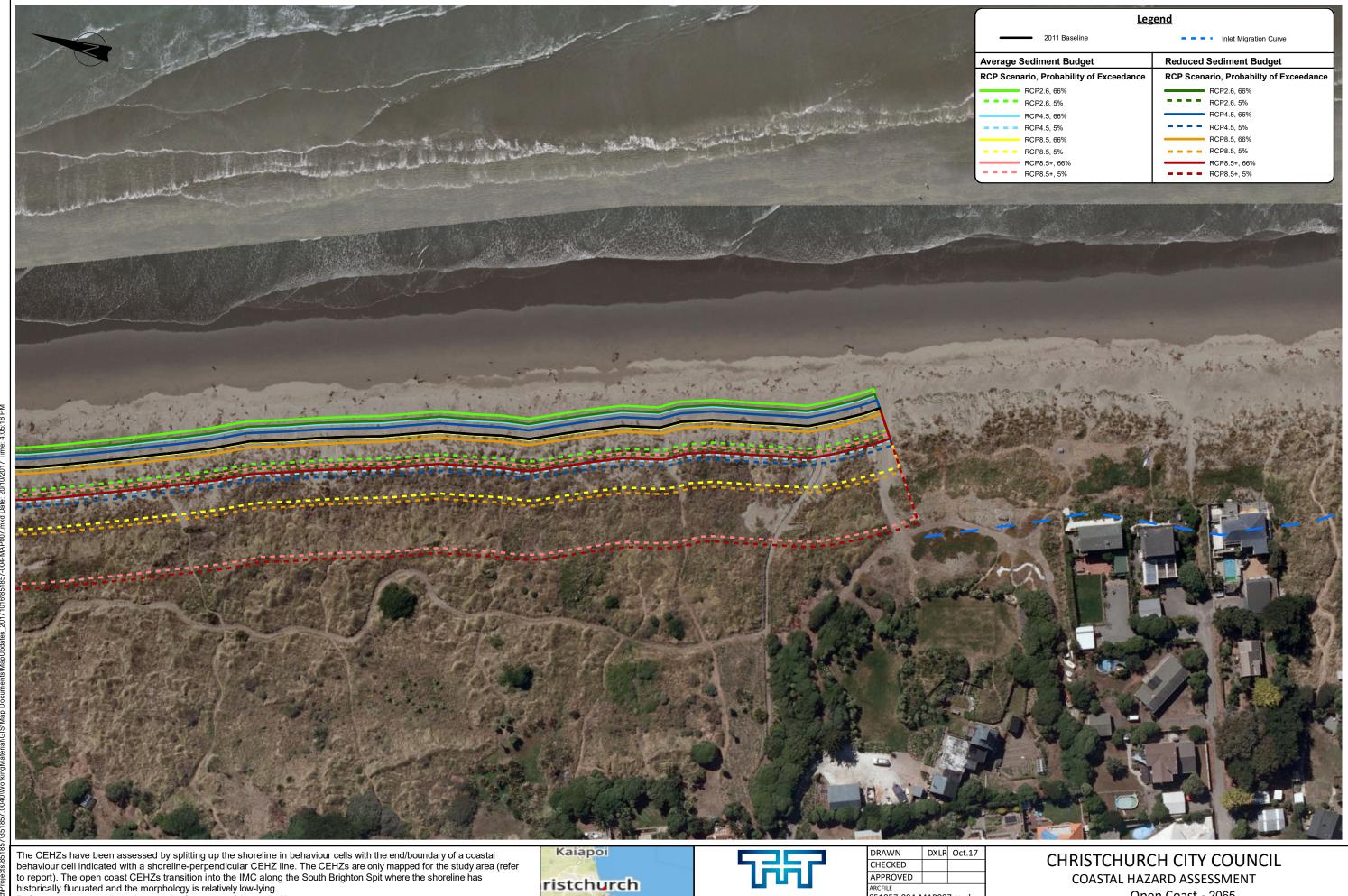
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## COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -27(b)



Refer to note on map limitations on the front page of Appendix H.

A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)



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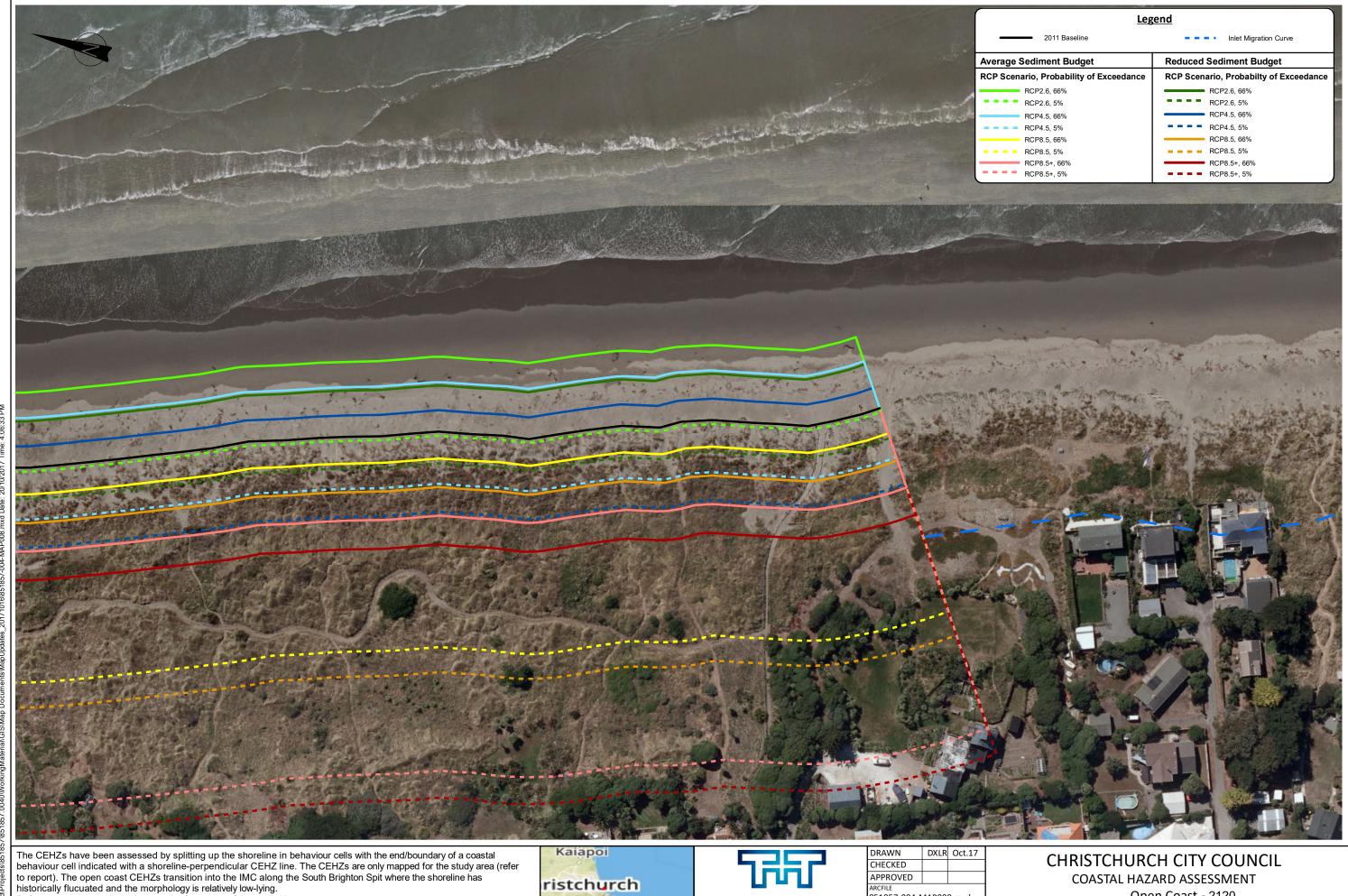
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -28(a)



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A3 SCALE 1:1,000 0.01 0.02 0.03 0.04 0.05 (km)

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COASTAL HAZARD ASSESSMENT Open Coast - 2120

**Erosion Hazard Zones** 

Figure H -28(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The open coast CEHZs transition into the IMC along the South Brighton Spit where the shoreline has historically flucuated and the morphology is relatively low-lying.

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A3 SCALE 1:3,000 0.03 0.06 0.09 0.12 0.15 (km)



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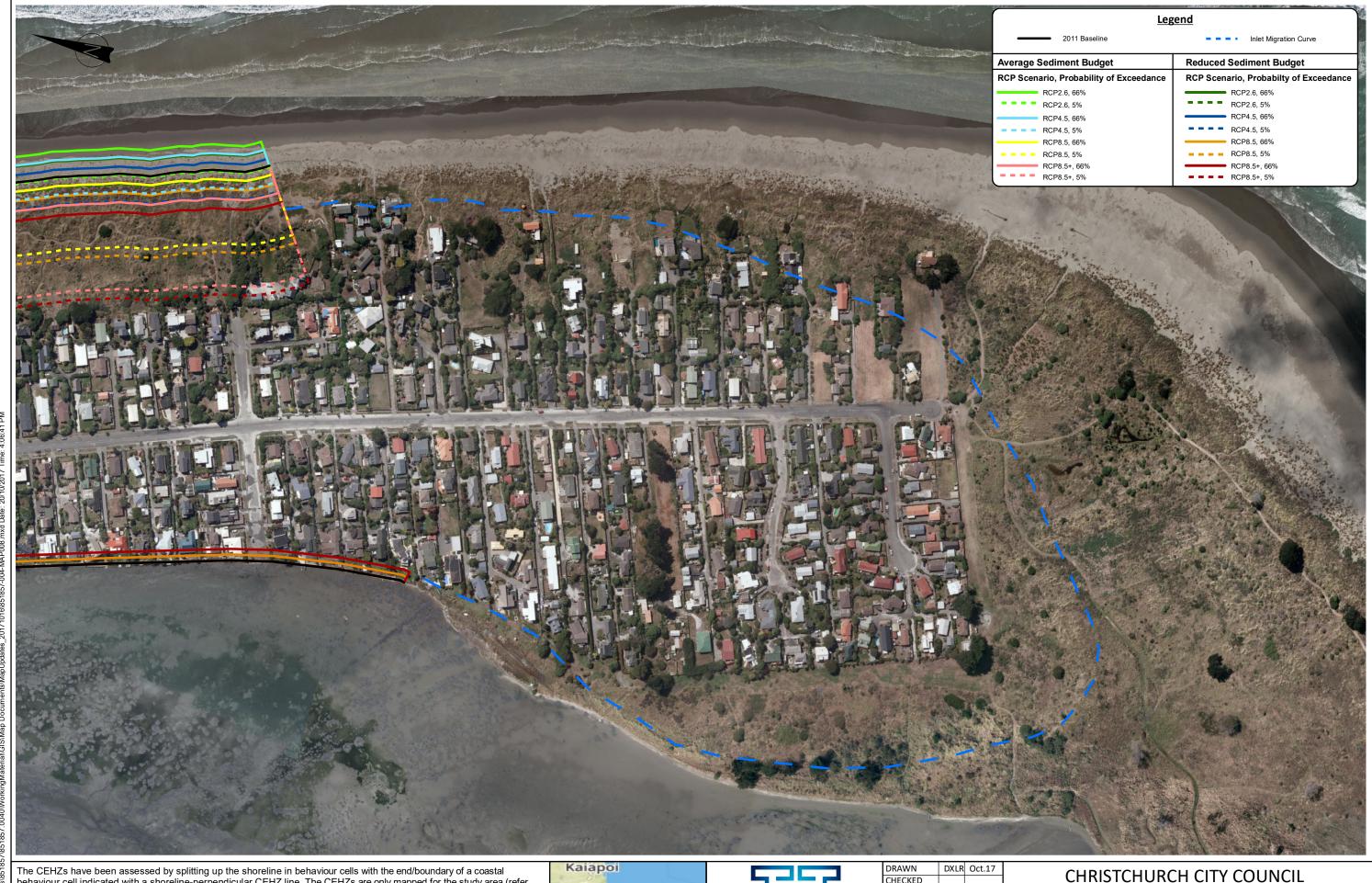
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COASTAL HAZARD ASSESSMENT Open Coast - 2065 **Erosion Hazard Zones** 

Figure H -29(a)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The open coast CEHZs transition into the IMC along the South Brighton Spit where the shoreline has historically flucuated and the morphology is relatively low-lying.

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:3,000 0.03 0.06 0.09 0.12 0.15 (km)



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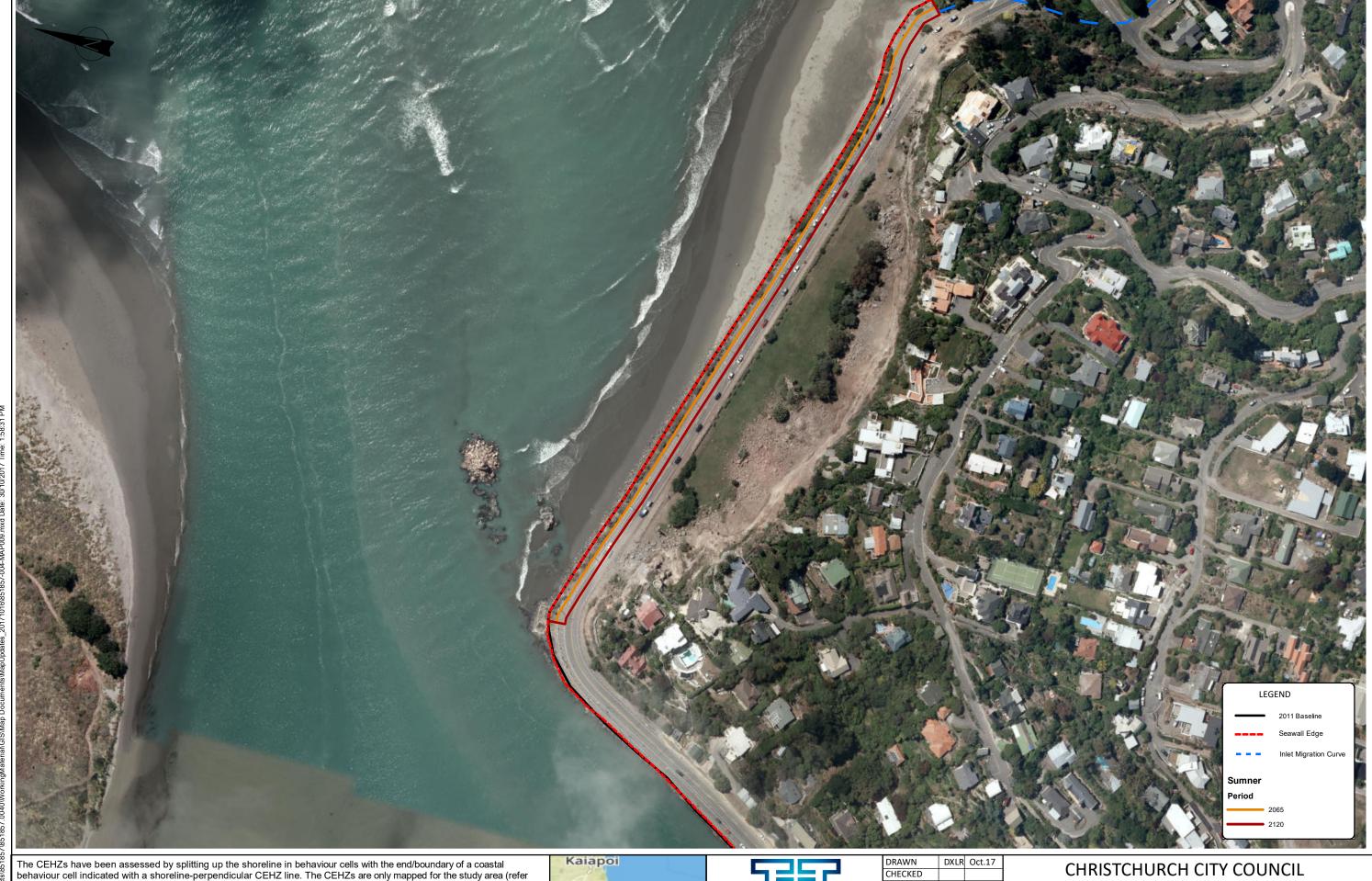
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COASTAL HAZARD ASSESSMENT Open Coast - 2120 **Erosion Hazard Zones** 

Figure H -29(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The Sumner CEHZs transition into the IMC along the unprotected, unconsolidated shoreline where the shoreline has historically flucuated and the morphology is relatively low-lying.

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A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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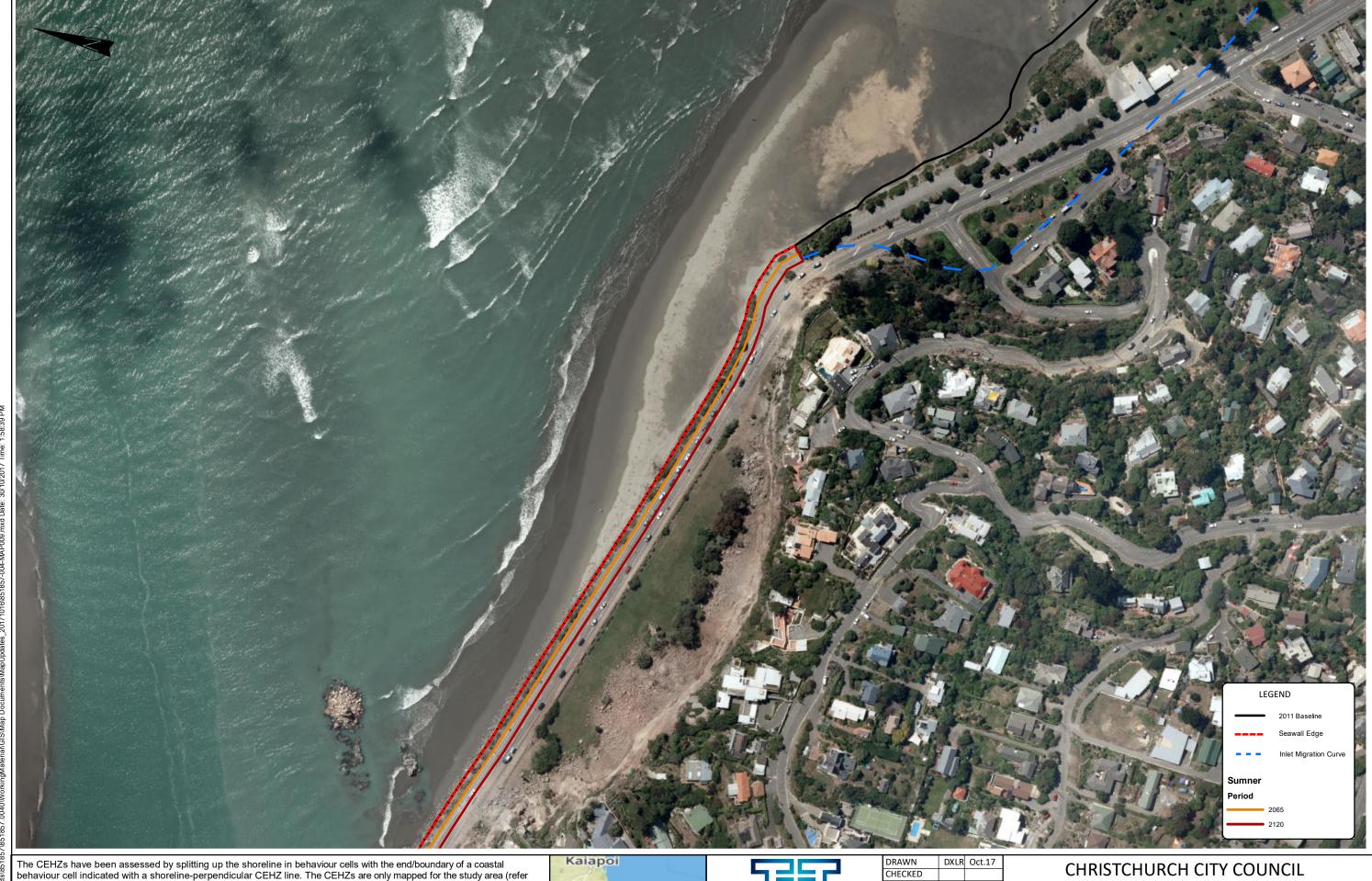
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COASTAL HAZARD ASSESSMENT Open Coast (Sumner)

**Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The Sumner CEHZs transition into the IMC along the unprotected, unconsolidated shoreline where the shoreline has historically flucuated and the morphology is relatively low-lying.

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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COASTAL HAZARD ASSESSMENT Open Coast (Sumner)

**Erosion Hazard Zones** 



A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)





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COASTAL HAZARD ASSESSMENT Open Coast (Sumner)

**Erosion Hazard Zones** 



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A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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COASTAL HAZARD ASSESSMENT

Open Coast (Sumner) - 2065 **Erosion Hazard Zones** 

Figure H -33(a)



A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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Open Coast (Sumner) - 2120

**Erosion Hazard Zones** 

Figure H -33(b)



A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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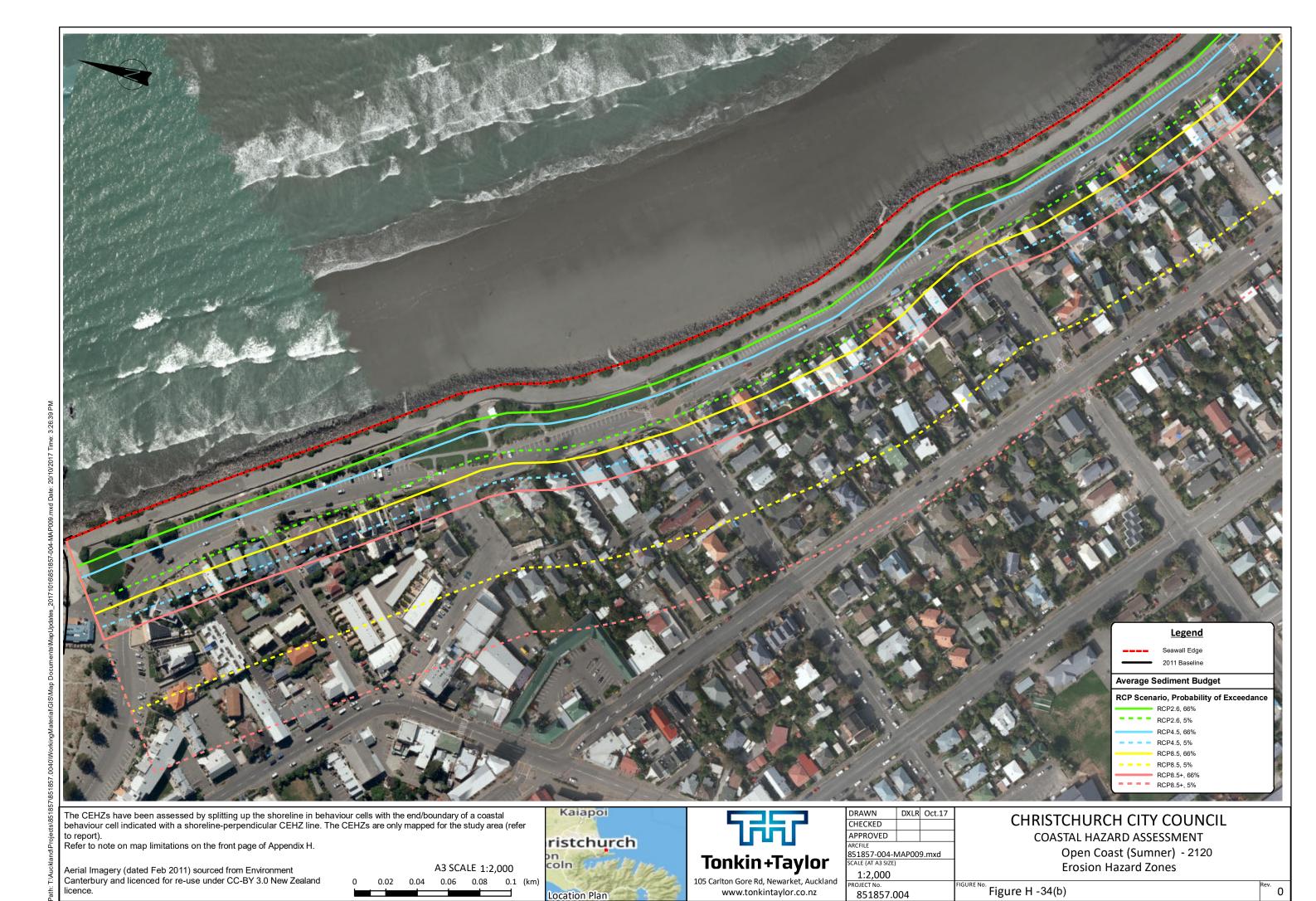
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Open Coast (Sumner) - 2065 **Erosion Hazard Zones** 

Figure H -34(a)





A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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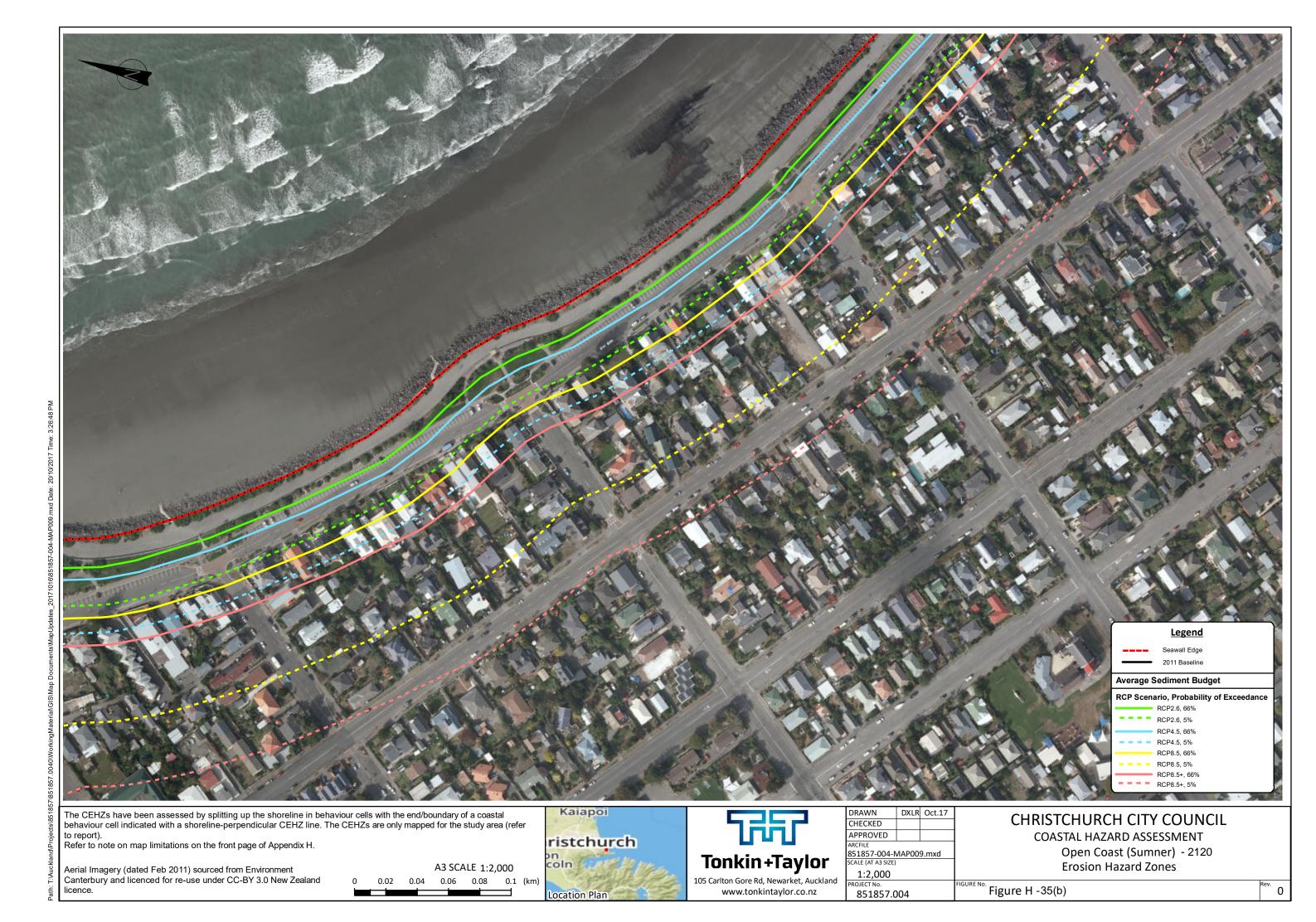
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**Erosion Hazard Zones** 

Figure H -35(a)





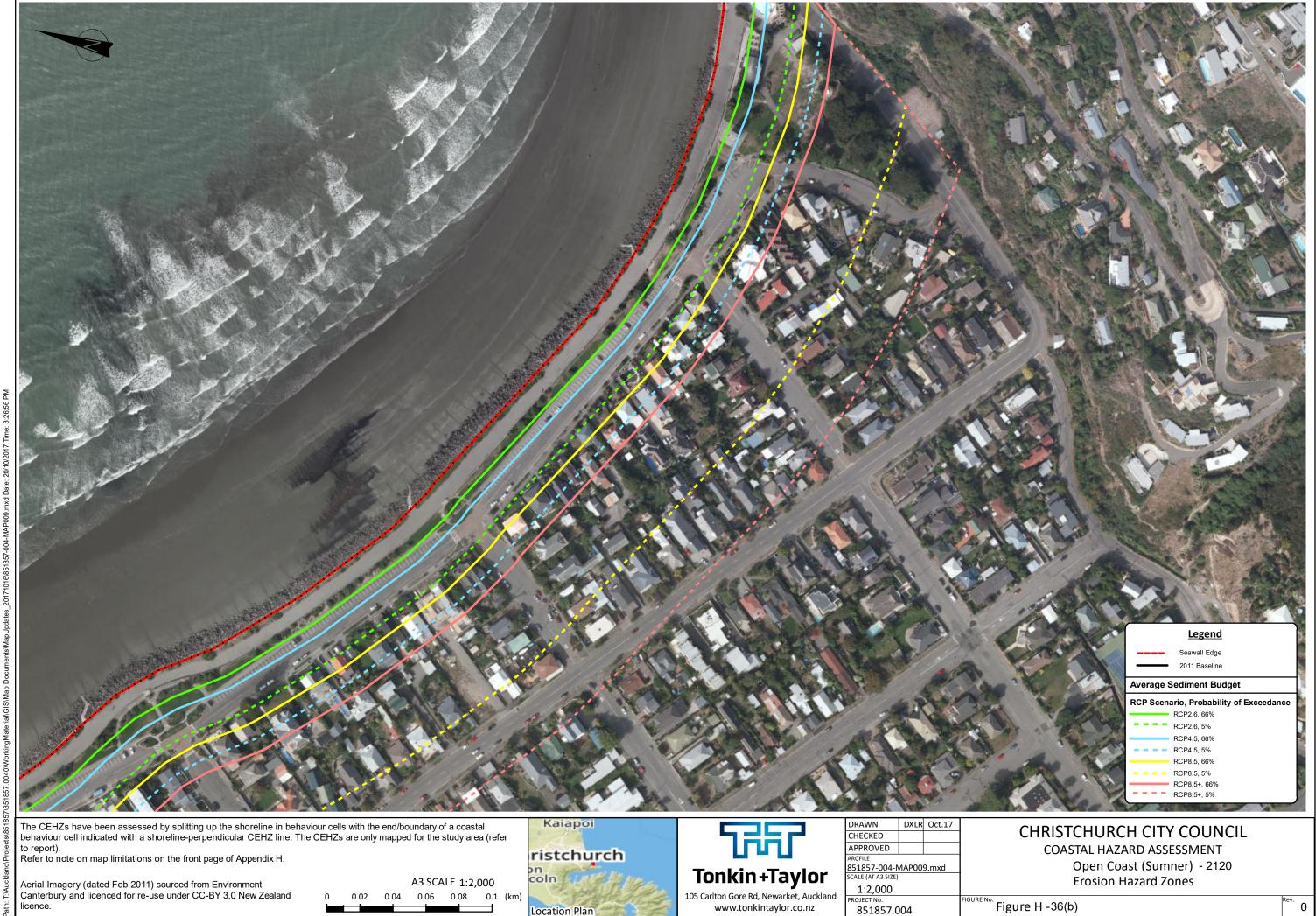
0.02 0.04 0.06 0.08 0.1 (km)

**Location Plan** 

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Figure H -36(a)



**Location Plan** 



A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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Open Coast (Sumner) - 2065 **Erosion Hazard Zones** 

Figure H -37(a)



A3 SCALE 1:2,000 0.02 0.04 0.06 0.08 0.1 (km)



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Open Coast (Sumner) - 2120 **Erosion Hazard Zones** 

Figure H -37(b)



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The open coast CEHZs transition into the IMC along the South Brighton Spit where the shoreline has historically flucuated and the morphology is relatively low-lying.

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:12,000 0.1 0.2 0.3 0.4 0.5 (km)



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COASTAL HAZARD ASSESSMENT

Avon-Heathcote Section 1 **Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report). The open coast CEHZs transition into the IMC along the South Brighton Spit where the shoreline has historically flucuated and the morphology is relatively low-lying.

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:13,000 0.6 0.75 (km)



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COASTAL HAZARD ASSESSMENT Avon-Heathcote Section 3 **Erosion Hazard Zones** 



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A3 SCALE 1:11,000 0.1 0.2 0.3 0.4 0.5 (km)



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Avon-Heathcote Section 2 **Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report).

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:3,000 0.03 0.06 0.09 0.12 0.15 (km)



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ROJECT No. 851857.004 COASTAL HAZARD ASSESSMENT Alandale **Erosion Hazard Zones** 



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A3 SCALE 1:15,000 0.45 0.6 0.75 (km)



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COASTAL HAZARD ASSESSMENT Teddington **Erosion Hazard Zones** 

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A3 SCALE 1:8,000 0.27 0.36 0.45 (km)

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COASTAL HAZARD ASSESSMENT Charteris Bay **Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report).

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:4,000 0.045 0.09 0.135 0.18 0.225 (km)



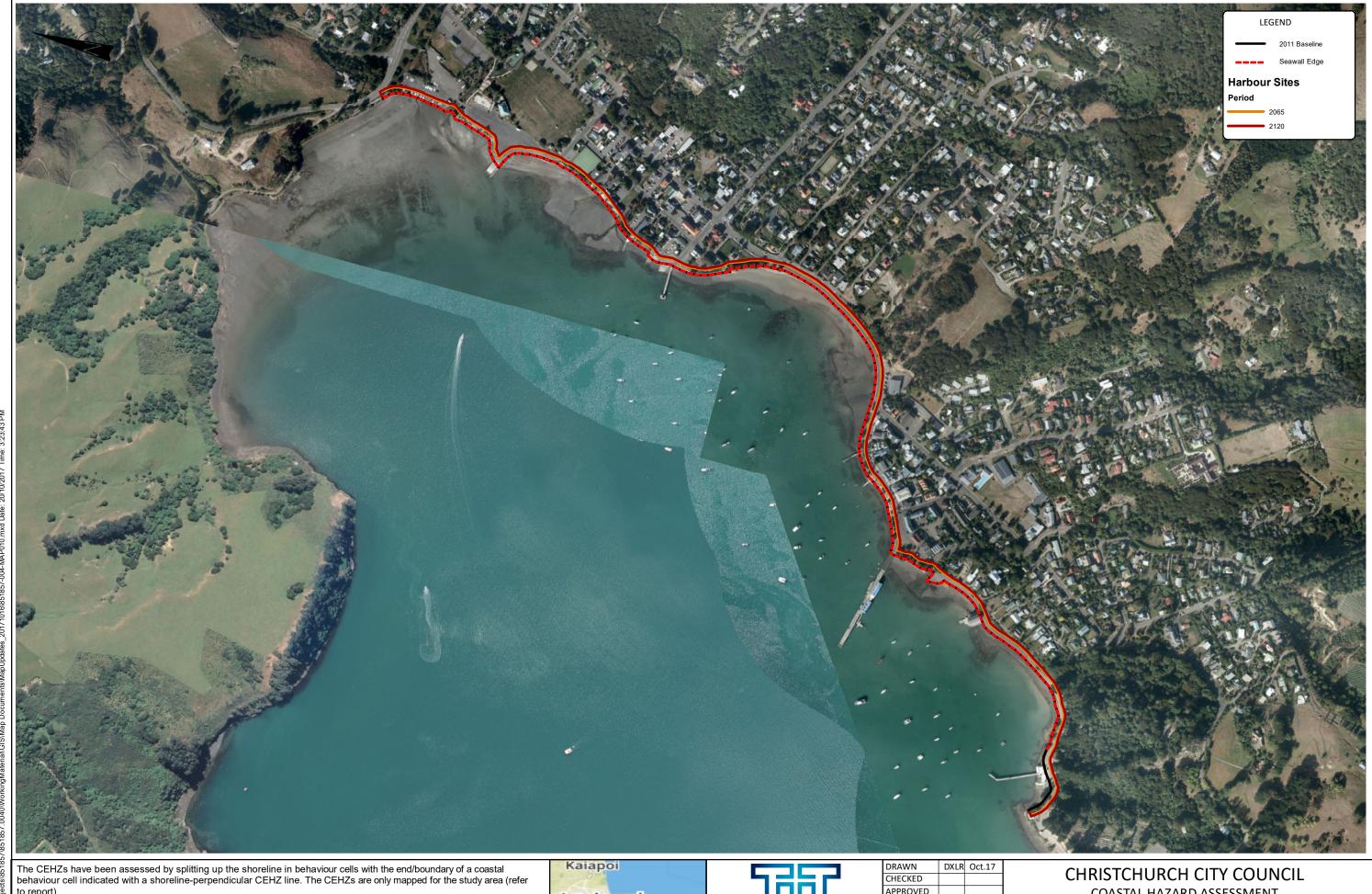


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CHRISTCHURCH CITY COUNCIL COASTAL HAZARD ASSESSMENT Purau **Erosion Hazard Zones** 



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A3 SCALE 1:6,000 0.195 0.26 0.325 (km) 0.065 0.13

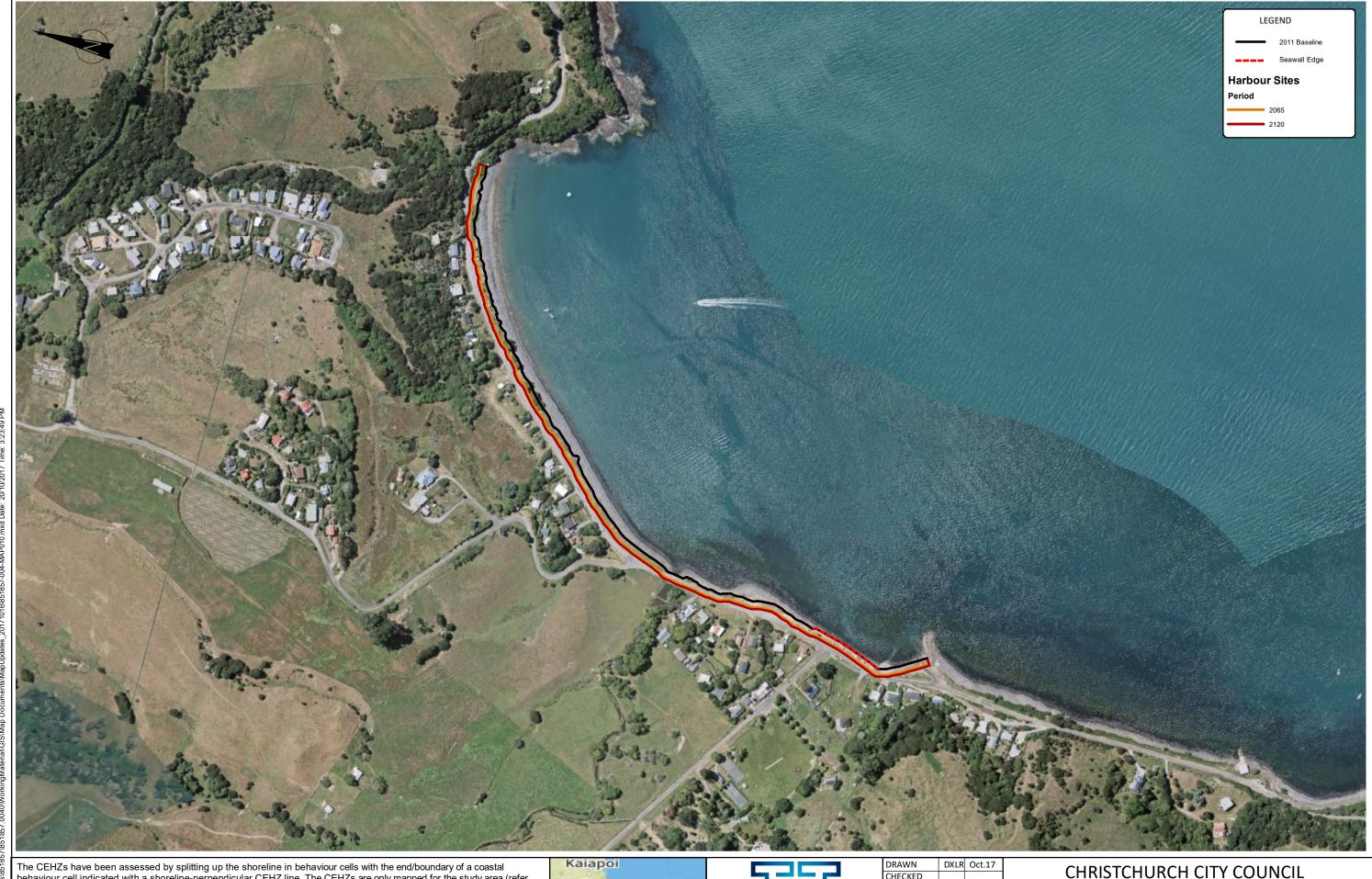


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COASTAL HAZARD ASSESSMENT Akaroa North **Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report).

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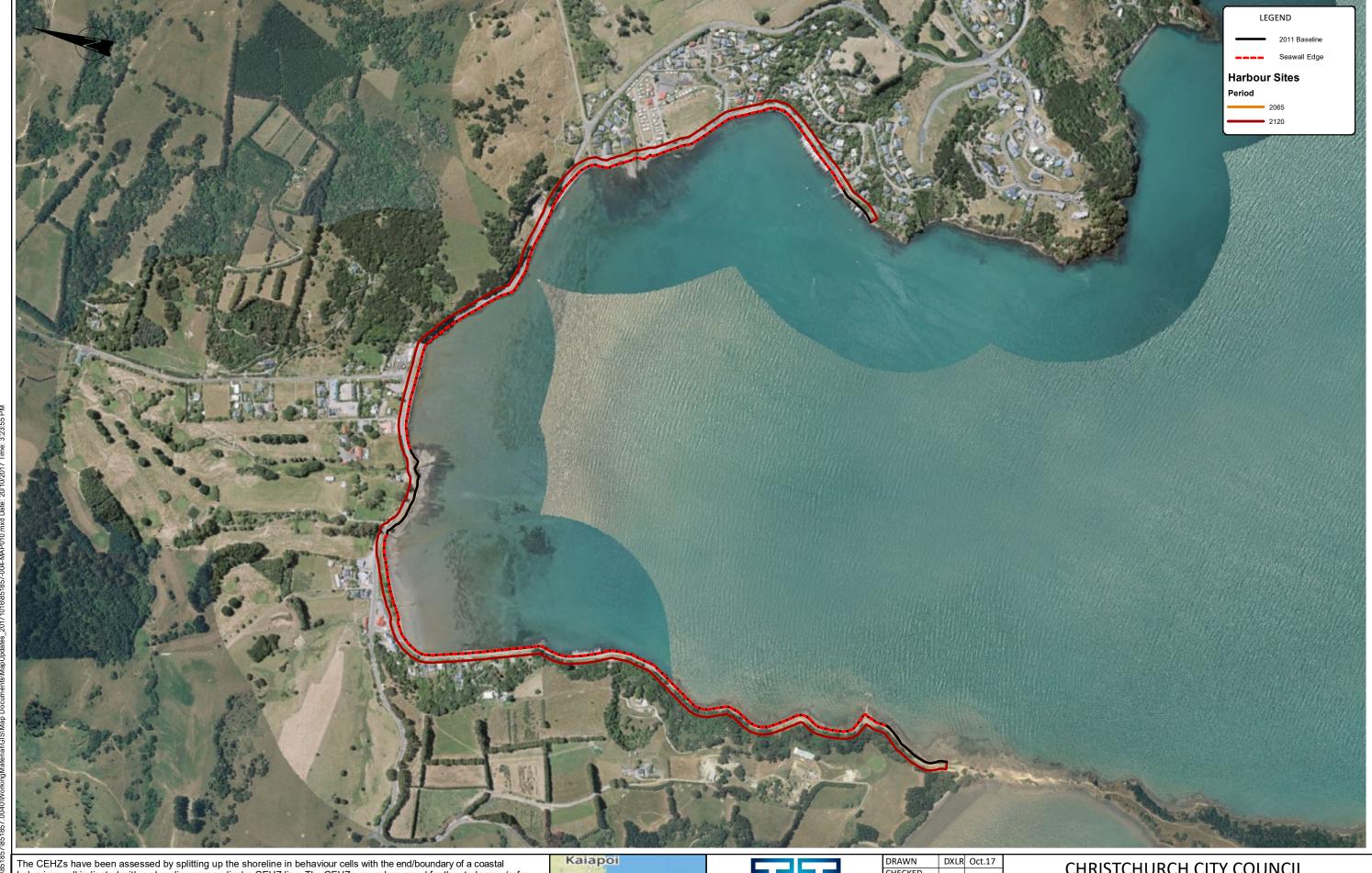
A3 SCALE 1:4,000 0.045 0.09 0.135 0.18 0.225 (km)



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COASTAL HAZARD ASSESSMENT Wainui **Erosion Hazard Zones** 



The CEHZs have been assessed by splitting up the shoreline in behaviour cells with the end/boundary of a coastal behaviour cell indicated with a shoreline-perpendicular CEHZ line. The CEHZs are only mapped for the study area (refer to report).

Refer to note on map limitations on the front page of Appendix H.

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A3 SCALE 1:8,000 0.27 0.36 0.45 (km)



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CHRISTCHURCH CITY COUNCIL COASTAL HAZARD ASSESSMENT Duvauchelle **Erosion Hazard Zones** 



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A3 SCALE 1:4,000 0.135 0.18 0.225 (km)

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COASTAL HAZARD ASSESSMENT Takamatua **Erosion Hazard Zones**