ENVIRONMENTAL MANAGEMENT GROUP

Technical report

ISSN 1174 3077

HAWKE'S BAY REGIONAL COUNCIL

SAFEGUARDING YOUR ENVIRONMENT + KAITIAKI TUKU IHO

Tonkin & Taylor

Hawke's Bay Regional Coastal Environment Plan: Coastal Hazards

Additional Advice

(Volume 2 - Maps)

April 2008
EMT 08/07
HBRC Plan Number 4043

HAWKE'S BAY
REGIONAL COUNCIL

159 Dalton Street + Private Bag 6006 + Napier
Telephone (06) 835 9200
Fax (06) 835 3601
Regional Freephone (06) 0800 108 838
SAFEGUARDING YOUR ENVIRONMENT + KAITIAKI TUKU IHO

Environmental Management Group
Technical Report

Policy Section

Hawke's Bay Regional Coastal Environment Plan:
Coastal Hazards: Additional Advice
(Volume 2 - Maps)

Prepared by:
Richard Reinen-Hamill
Tonkin and Taylor Limited

18 April 2008
EMT 08/07
HBRC Plan Number 4043

© Copyright: Hawke's Bay Regional Council

Notes to Readers

1. The attached maps are depictions of reassessed positions of the Current Erosion Risk Zone (CERZ) and 2100 Erosion Risk Zone (2100ERZ) resulting from the assessment undertaken by Tonkin and Taylor Limited and reported in a letter report dated 18 April 2008 titled 'Hawke's Bay Regional Coastal Environment Plan: Additional Advice (Volume 1).' The attached maps do not illustrate the extent of Coastal Hazard Zone 3 (aka the 'Moderate Inundation Risk Zone), nor Rivermouth Hazard Zones.

2. Cadastral (property) information shown on these maps has been obtained from Land Information New Zealand. While efforts have been made to ensure accuracy of this data, because it has been obtained from other sources, Hawke's Bay Regional Council cannot guarantee the data is 100% accurate.

3. Aerial imagery (the photographic background of the attached maps) has been obtained by Hawke's Bay Regional Council from a variety of sources. Again, while efforts have been made to ensure accuracy of this data, because it has been obtained from other sources, Hawke's Bay Regional Council cannot guarantee the data is 100% accurate.

4. Hawke's Bay Regional Council has investigated the costs associated with acquiring better resolution aerial photography than currently held by HBRC. Acquisition of higher resolution ortho-rectified images was suggested by Tonkin and Taylor Limited.[1]

5. Hawke's Bay Regional Council has received quotes ranging from $3,000 to $15,000 for resampled[2] ortho-rectified aerial photography covering the coastal area of Hawke's Bay. The resampled imagery has been estimated as having a ±15metre horizontal error range. HBRC is currently aware of a nationwide project involving capturing ortho-rectified aerial photography for all of New Zealand. This project is due to commence in 2008 and completed by 2010. Documentation for this national project specifies ground sample resolution (GSD) as 0.6m (ie: 1 pixel equals 0.6m by 0.6m), and horizontal error range is intended to be ±2.6m.

6. Given this, resampled ortho-rectified aerial photography for coastal areas has <u>not</u> been purchased as this was not considered a cost effective improvement in aerial photography accuracy. Consequently, the aerial imagery used in the attached maps may cause some confusion, but any confusion caused by this does not invalidate accuracy of ERZs, coastal hazard zones or any other data depicted on the maps.

7. The CERZ and 2100ERZ positions depicted on the attached maps are for <u>information purposes only</u> at this time.

8. Positions of the revised CERZ and 2100ERZ depicted on the attached maps are not necessarily the actual extents of any or all coastal hazard zones that may be identified in the Regional Coastal Environment Plan (RCEP). Coastal Hazard Zones identified in the RCEP will be subject to further deliberations and debate by the RCEP Hearings Panel, then referred to the Hawke's Bay Regional Council for its consideration, and then possibly the Environment Court in the context of any appeals lodged in response to the Council's decision(s).

---

1 18 April 2008 Letter Report *"Hawke's Bay Regional Coastal Environment Plan: Additional Advice"* (pg12)

2 'Resampling' is modifying original aerial photo data from previous flights to perceived higher resolutions. Resampling is not recapturing photos or capturing new photo sets from a plane. Resampling processes may improve clarity of imagery, but does not improve accuracy of imagery.

TABLE OF CONTENTS

Location (in order of Appearance)	Map Title
Mahanga	Mahanga North
Pukenui Beach (Mahanga Beach)	Mahanga South (no aerial photo)
Oraka	Oraka
Taylor's Bay, Mahia Beach	Taylor's Bay
Mahia Beach	Opoutama South
Mahia Beach	Opoutama Central 1
Opoutama Beach	Opoutama Central 2 (no aerial photo)
Opoutama	Opoutama North (no aerial photo)
Tangoio	Tangoio North (no aerial photo)
Whirinaki (North)	Tangoio Mid (no aerial photo)
Whirinaki (Central)	Tangoio South (no aerial photo)
Whirinaki (South)	Esk River North (no aerial photo)
Bay View (North)	Esk River South (no aerial photo)
Bay View (Central)	Bay View North
Bay View (South)	Bay View South
Westshore (North)	Westshore Central
Westshore (South)	Westshore South
Napier City (Marine Parade)	Napier North
Napier City (Te Awa)	Napier South
Awatoto (North)	Awatoto North
Awatoto (South)	Awatoto South
Clive	Clive
Haumoana	Haumoana
Te Awanga	Te Awanga
Clifton	Clifton
Ocean Beach	Ocean Beach
Waimarama (North)	Waimarama North
Waimarama (Central)	Waimarama Central
Waimarama (South)	Waimarama South
Kairakau	Kairakau
Mangakuri	Mangakuri
Pourerere ('Entrance')	Pourerere North
Pourerere (South)	Pourerere South
Aramoana / Shoal Beach	Aramoana
Blackhead	Blackhead
Porangahau / Te Paerahi	Porangahau

C:\Program Files\Arc GIS\Bin\Templates\TONTAY\A3FP-MBV-MG.mxt: Wednesday, April 16, 2008 5:17:47 p.m.

Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
A3 SCALE 1:1,532

0 50 Meters

Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz

DRAWN	MCT	May 08
DRAFTING CHECKED		
APPROVED		
ARCFILE	Mahanga_N2008.mxd	
SCALE (AT A3 SIZE)	1:1,532	
PROJECT No.	20514.002	

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Mahanga North - Revised 2008

FIG. No. Figure 1. REV. 0

C:\Program Files\Arc GIS\Bin\Templates\TONTAY\A3FP-MBV-MG.mxt: Wednesday, April 16, 2008 5:17:47 p.m.

Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
A3 SCALE 1:10,000

0 500 Meters

Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz

DRAWN	MCT	May 08
DRAFTING CHECKED		
APPROVED		
ARCFILE	Mahanga_S2008.mxd	
SCALE (AT A3 SIZE)	1:10,000	
PROJECT No.	20514.002	
FIG. No.	Figure 1.	REV. 0

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Mahanga South - Revised 2008

Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2009 - Table 4.2.
A3 Scale 1:4,000

0 50 100 200 m

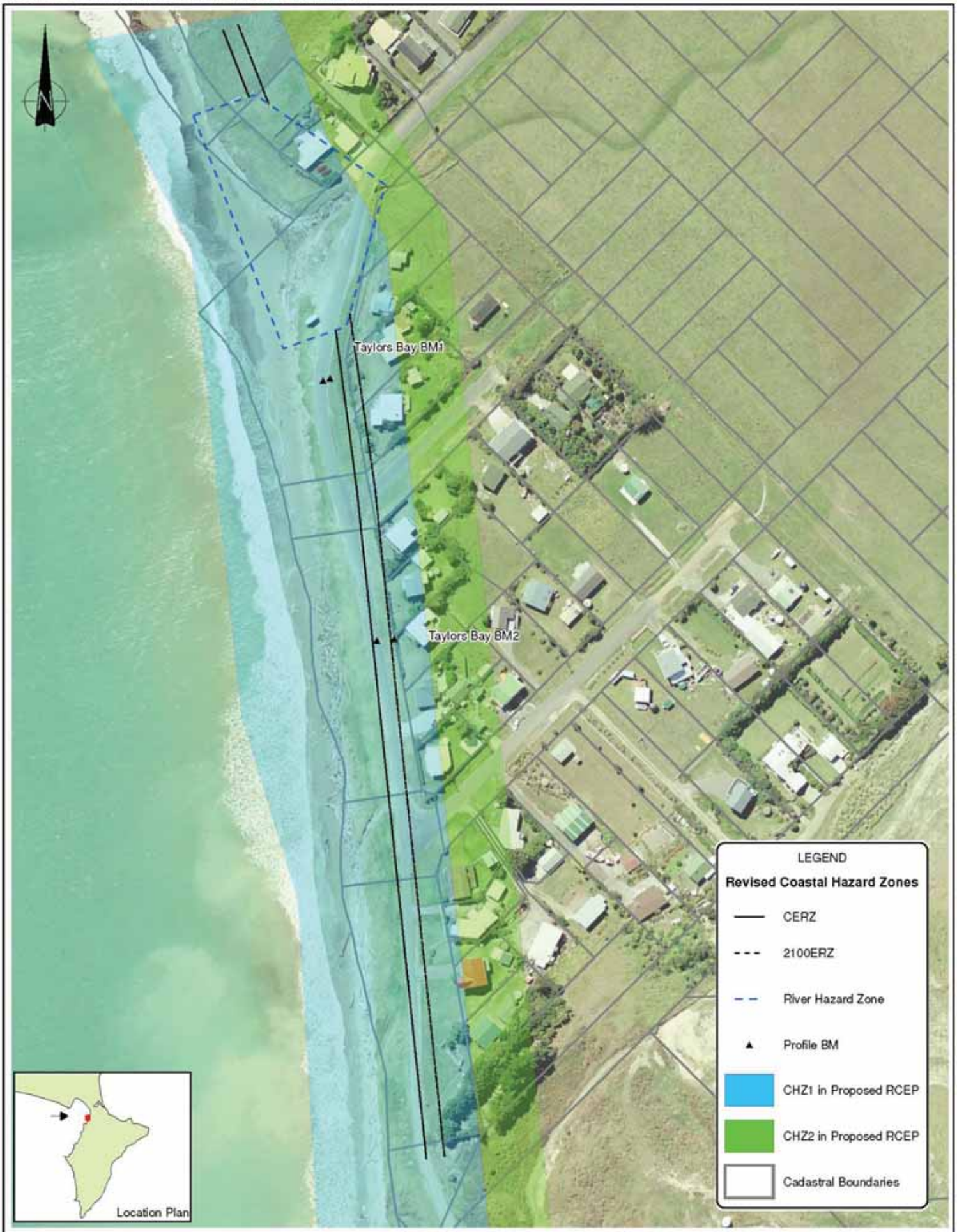
HAWKE'S BAY REGIONAL COUNCIL

DRAWN	MCI	Mar 09
DRAWING CHECKED		
APPROVED		
PROJECT		
SCALE AT A3 SIZE	1:4,000	
PROJECT No.	20514.002	

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Oraka - Revised 2008

FIG. No. Figure 1. REV. 0

C:\Program Files\Arc GIS\Bin\Templates\TONTAY\A3FP-MBV-MG.mxt: Wednesday, April 16, 2008 5:17:47 p.m.



Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
A3 SCALE 1:1,500

0 50 Meters

Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz

DRAWN	MCT	May 08
DRAFTING CHECKED		
APPROVED		
ARC/FILE	Taylors Bay2008.mxd	
SCALE (AT A3 SIZE)	1:1,500	
PROJECT No.	20514.002	

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Taylor's Bay - Revised 2008

FIG. No. Figure 1.

REV. 0

C:\Program Files\Arc GIS\Bin\Templates\TONTAY\A3FP-MBV-MG.mxt: Wednesday, April 16, 2008 5:17:47 p.m.

Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
A3 SCALE 1:2,500

0 50 100 Meters

Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz

DRAWN	MCI	May 08
DRAFTING CHECKED		
APPROVED		
ARC/FILE	Opoutama_S2008.mxd	
SCALE (AT A3 SIZE)	1:2,500	
PROJECT No.	20514.002	

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Opoutama South - Revised 2008

FIG. No. Figure 1.

REV. 0

C:\Program Files\Arc GIS\Bin\Templates\TONTAY\A3FP-MBV-MG.mxt: Wednesday, April 16, 2008 5:17:47 p.m.

Notes: Aerial photograph sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
A3 SCALE 1:2,500

0 50 100 Meters

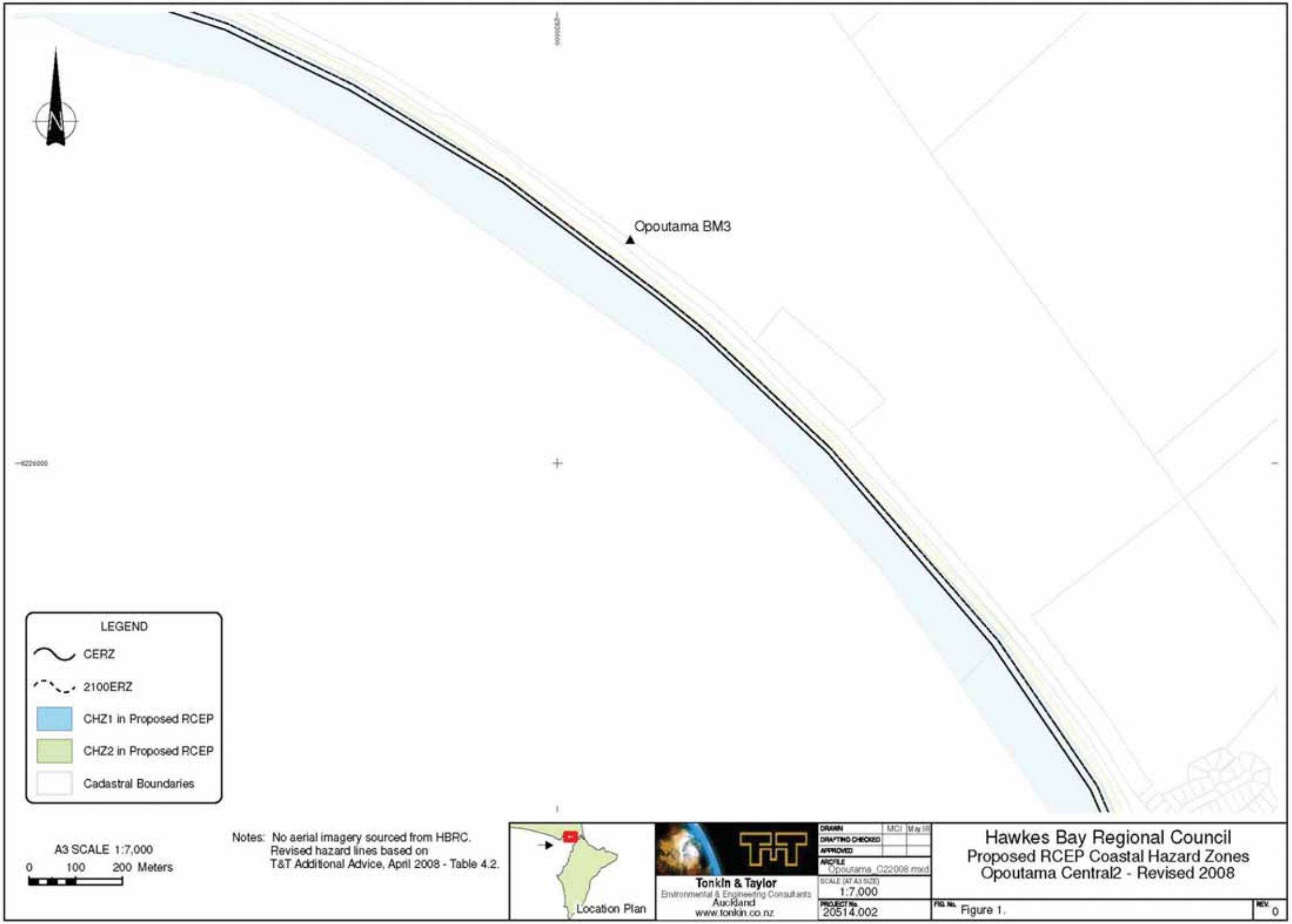
Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz

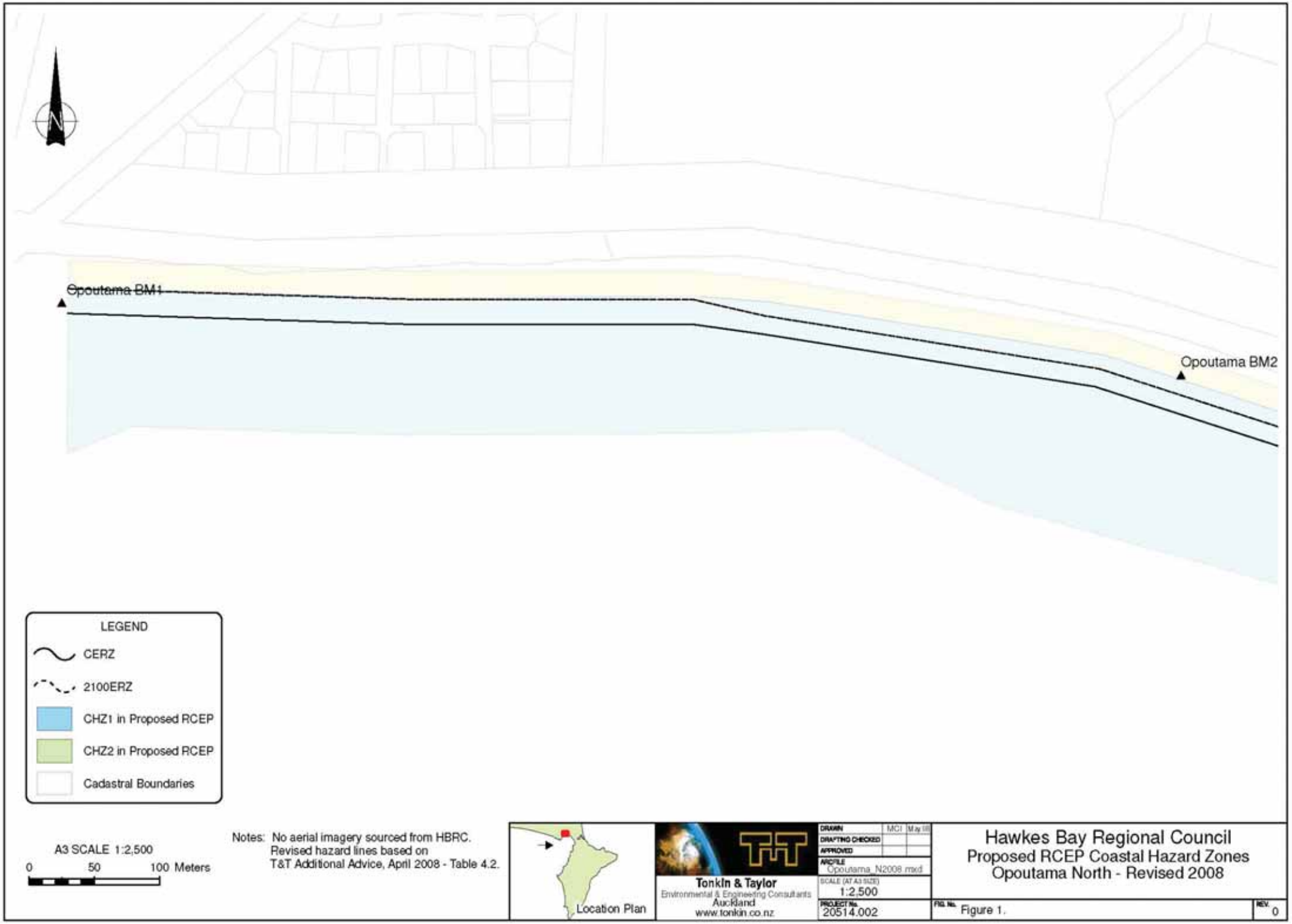
DRAWN	MCT	May 08
DRAFTING CHECKED		
APPROVED		
ARCFILE	Opoutama_C12008.mxd	
SCALE (AT A3 SIZE)	1:2,500	
PROJECT No.	20514.002	

Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Opoutama Central1 - Revised 2008

FIG. No. Figure 1.

REV. 0


Opoutama BM3
LEGEND
CERZ
2100ERZ
CHZ1 in Proposed RCEP
CHZ2 in Proposed RCEP
Cadastral Boundaries
A3 SCALE 1:7,000
0 100 200 Meters
Notes: No aerial imagery sourced from HBRC.
Revised hazard lines based on
T&T Additional Advice, April 2008 - Table 4.2.
Location Plan
Tonkin & Taylor
Environmental & Engineering Consultants
Auckland
www.tonkin.co.nz
DRAWN MCI May 08
DRAFTING CHECKED
APPROVED
ARCFILE Opoutama_C22008.mxd
SCALE (AT A3 SIZE) 1:7,000
PROJECT No. 20514.002
Hawkes Bay Regional Council
Proposed RCEP Coastal Hazard Zones
Opoutama Central2 - Revised 2008
FIG No. Figure 1.
REV. 0



L:\T_S\SUPPORT\ARCVIEW\TONKIN & TAYLOR\ASFL_HAM.MXD Sunday, April 6, 2008 3:02:16 p.m.