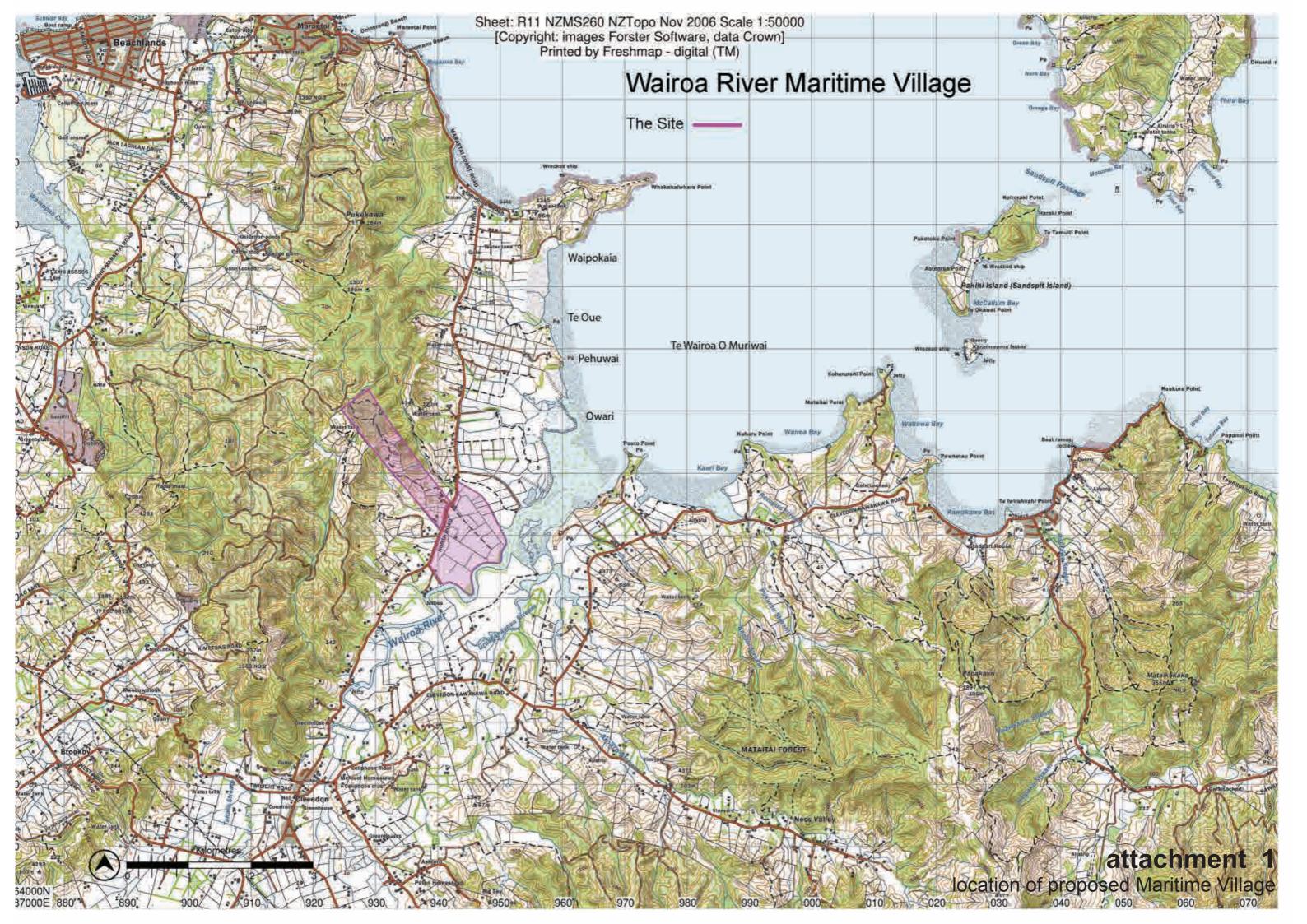
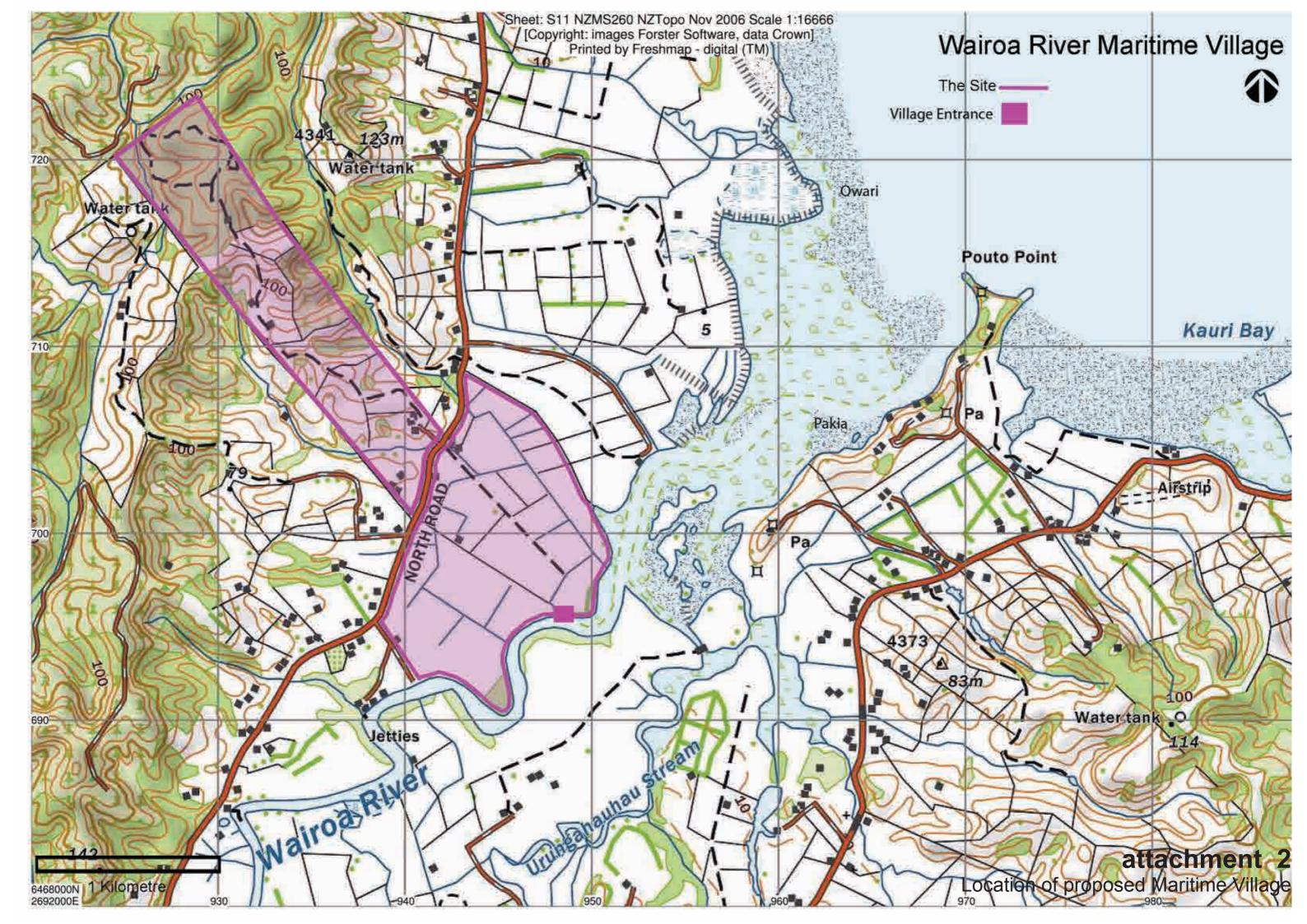
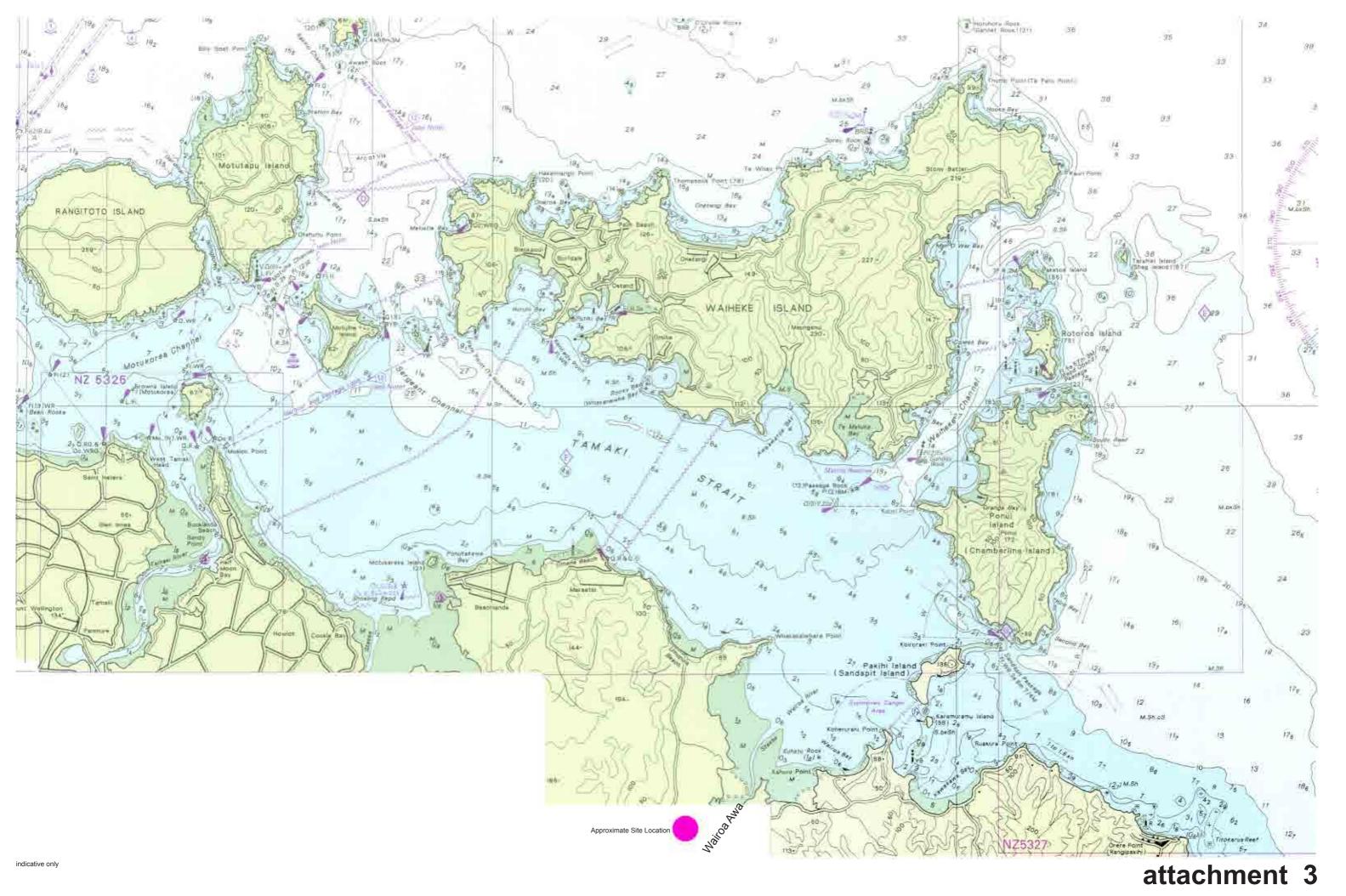


to the evidence of Di Lucas Registered NZILA Landscape Architect Wairoa River Maritime Village, Clevedon, March 2009







Te Wairoa Water Ways Context (LINZ Hydrograph 1999)





Village Site

Geographx (NZ) Ltd 2009 Base photo 2003/04

attachment 5 Maraetai (Tamaki Strait) Context



Village Site

Geographx (NZ) Ltd 2009 Base photo 2003/04

attachment 6 Te Wairoa, looking North



Te Wairoa O Muriwai, from Koherurahi (left) to Whakakaiwhara (right)

Village Site



Geographx (NZ) Ltd 2009 Base photo 2003/04

attachment 7 Te Wairoa, looking South



Tauranga Kawau & Taka te Kauere lie on the estuarine floodplains that include the site between the promontories of Pouto & Pehowai

Village Site

Geographx (NZ) Ltd 2009 Base photo 2003/04

attachment 8 Te Wairoa

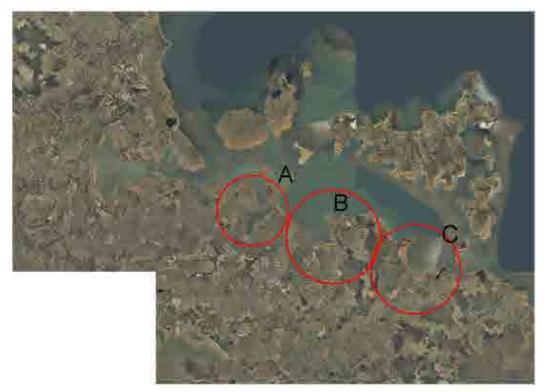




attachment 9 Maraetai (Tamaki Strait) Landscape Values



attachment 10 South East Manukau Visual Assessment, LA4, 1993



Locator Map



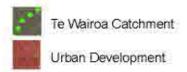




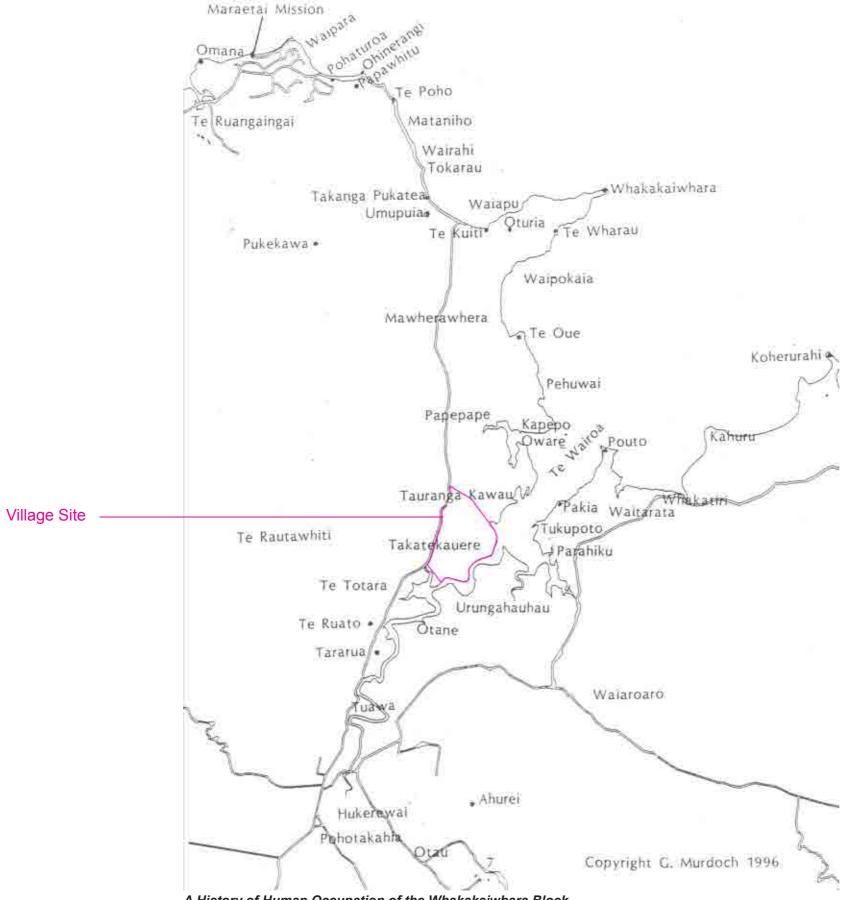
(A) Tamaki River

(B) Turanga Creek, Waikopua Creek & Mangemangeroa Creek

(C) Wairoa River

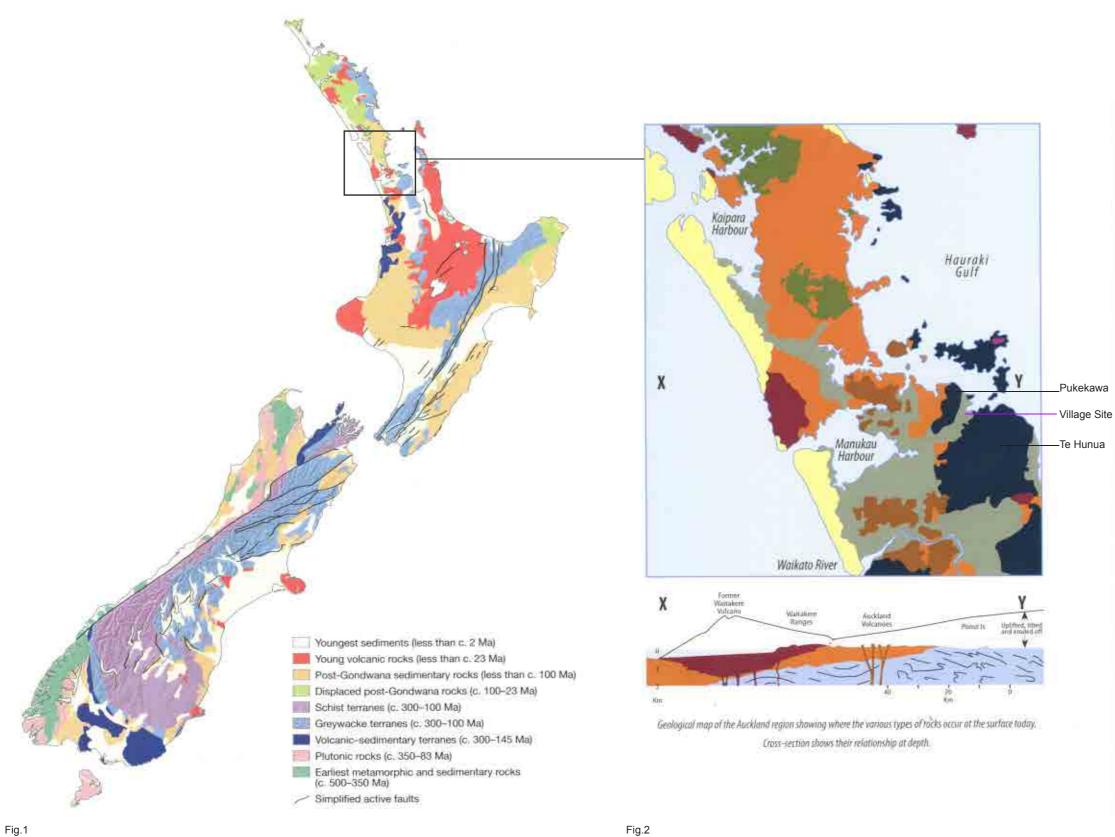


attachment 11 Catchment Comparison



A History of Human Occupation of the Whakakaiwhara Block, Prepared by G.J Murdoch for the ARC Regional Parks Service, 1996

attachment 12 Maori Placenames - Te Wairoa



A Continent on the Move, New Zealand Geoscience into the 21st Century, Graham I J, 2008, pg 31

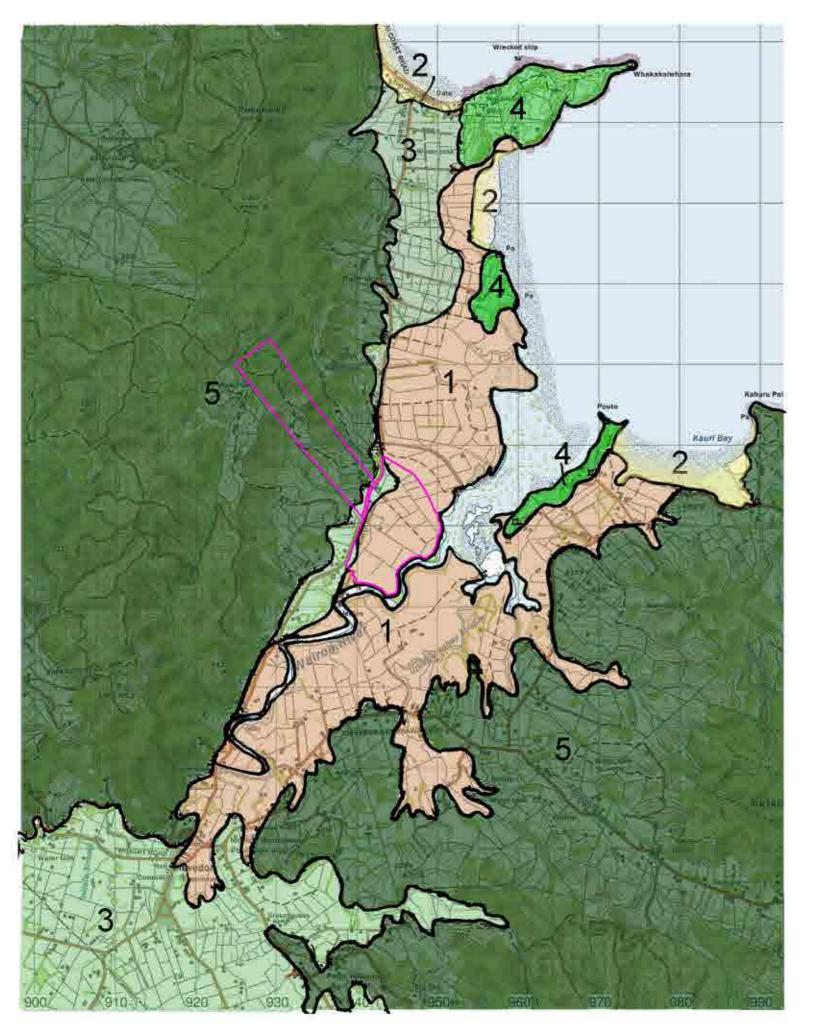
Fig.2

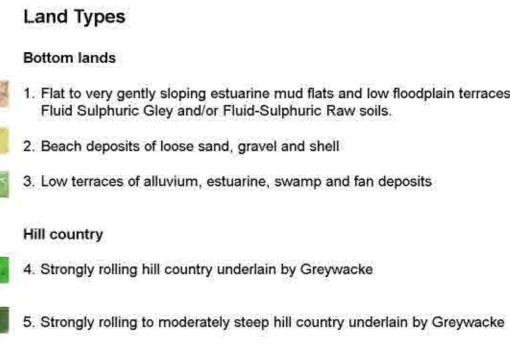
A Field Guide To Auckland, Exploring the Region's Natural and Historic Heritage, Cameron E, Hayward B, Murdoch G, 2008, pg 10-11

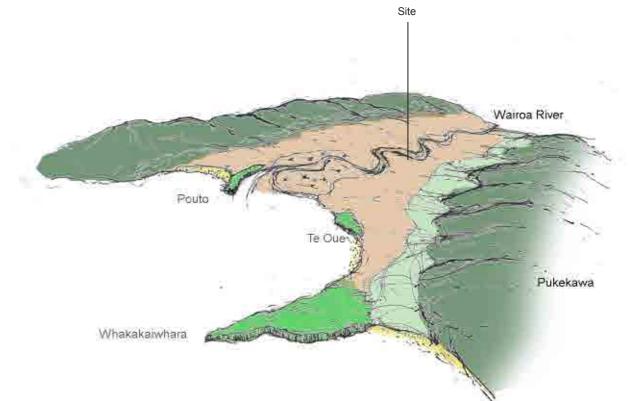
Timeline for the Auckland region

	Years ago					
	7200	Present coastline formed				
	Million ye	Million years ago				
	0-0.25	Auckland volcance; erupted				
	0.5-1.5	Franklin volcanoes erupted				
	0-2	Yo-yo sea levels of the Ice Ages with young coastal sand				
-		dunes deposited				
		Young tiver plain, swamp & mudflat sediments deposited				
	15-3	Little Barrier strato-volcano erupted				
	2-3	Hauraki Gulf & Firth of Thames subside				
	3-5	Auckland region uplifted & tilted to the west				
	5-16	Auckland region eroded to a low-lying plain				
	8-15	Basalt, andesite & rhyolite volcances erupted at Leigh,				
	-	Waiheke & Great Barrier				
	15-16	Auckland region uplifted out of sea				
7	15-22	Waitakere & Kaipara volcanoes' andesite erupted (flows,				
		intrusions, conglomerate)				
	1822	Waitemata Sandstones deposited (in Waitemata Basin)				
	20	Sub-seafloor failure of displaced older rocks on northern				
		slopes of Waitemata basin				
	22-25	Ocean floor rocks displaced onto Northland (Northland				
		Allochthon)				
	30-100	Auckland region eroded to a low-lying plain				
	55-80	Tasman Sea opened and New Zealand formed				
	100-140	Uplift forms mountains on coast of Gondwanaland				
	140-250	Ancient greywacke rocks accumulate in sea off coast of				
-		Gondwanaland				

attachment 13 Auckland Region Geological Map





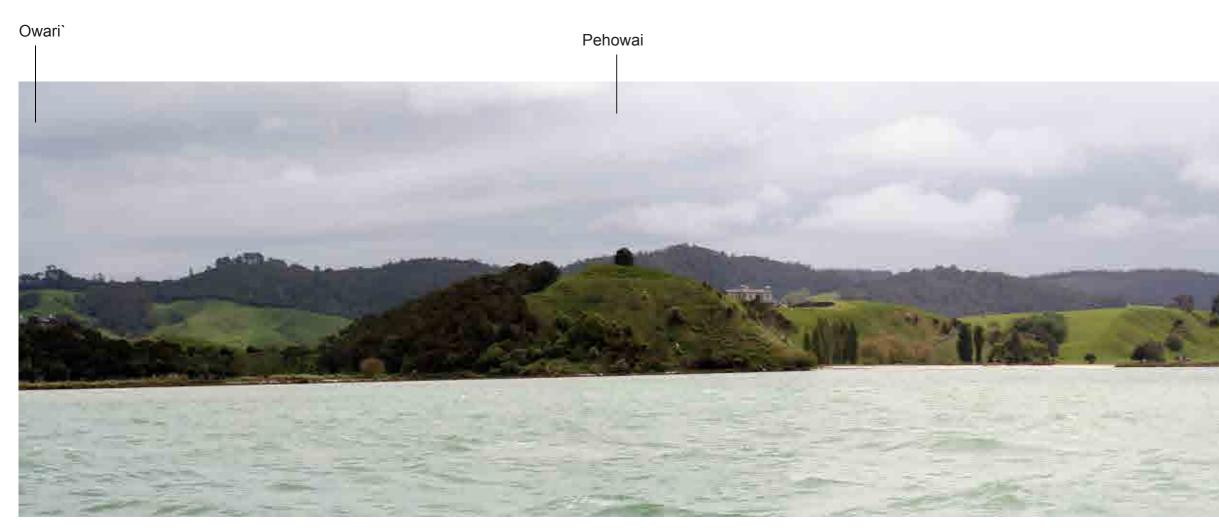


1. Flat to very gently sloping estuarine mud flats and low floodplain terraces with Fluid Sulphuric Gley and/or Fluid-Sulphuric Raw soils.

attachment 14

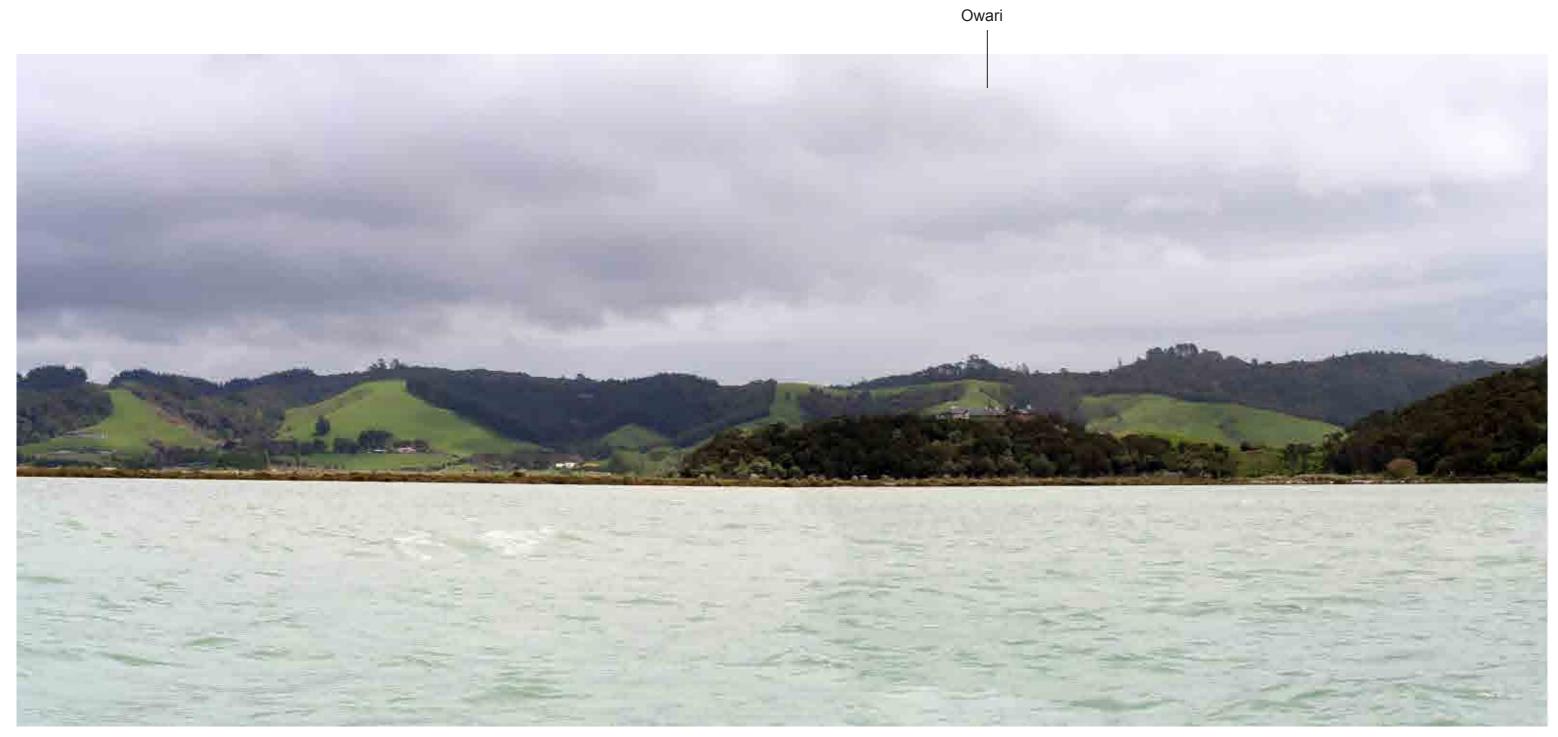
Te Wairoa Land Types (Ian Lynn, Landcare Research, 2008)







attachment 15 Te Wairoa o Muriwai



Pehowai to right

attachment 16 Te Wairoa o Muriwai



Pukekawa



attachment 17 Te Wairoa o Muriwai





attachment 18 Te Wairoa o Muriwai

Te Pouto





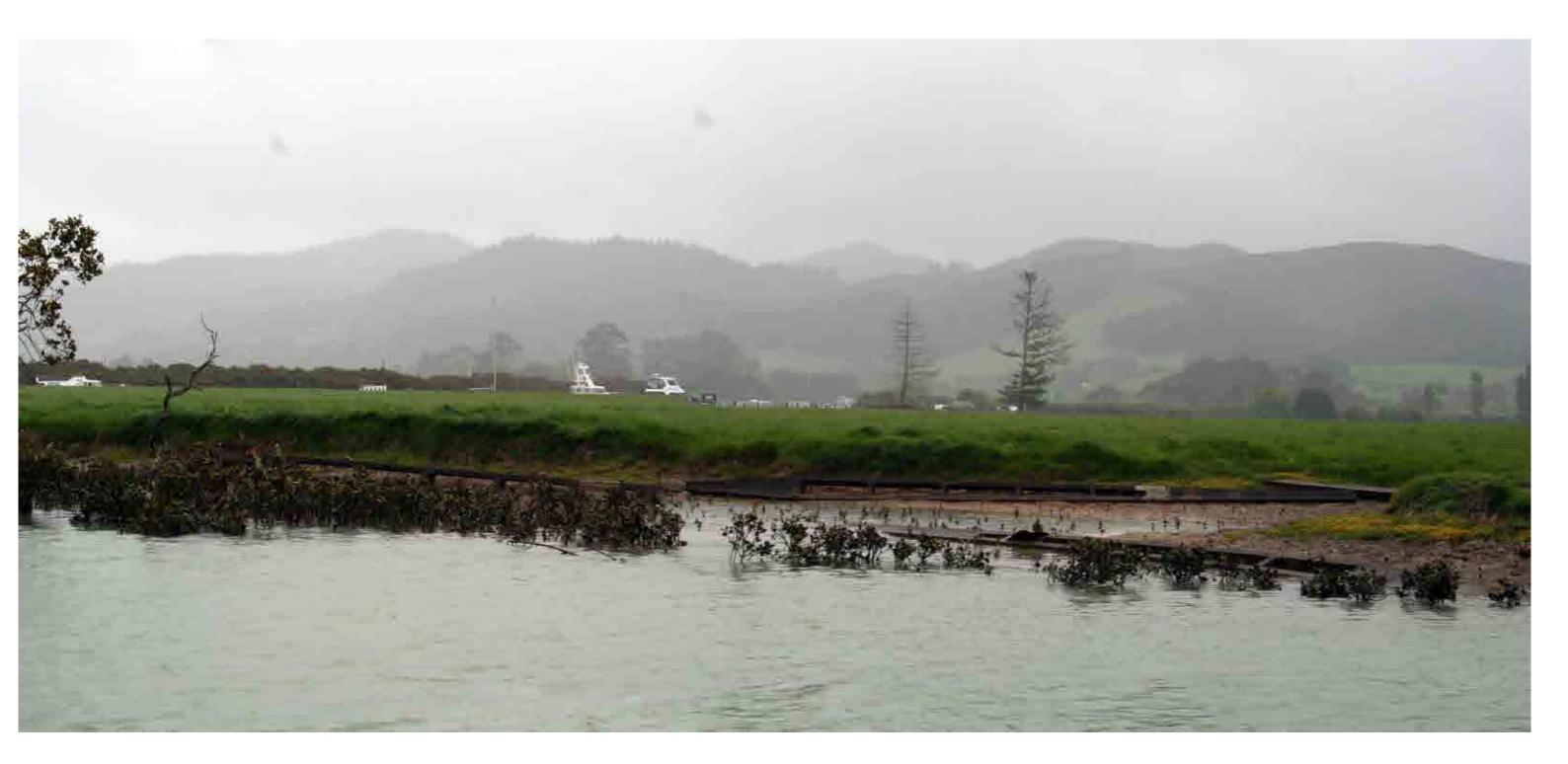


attachment 20 Te Wairoa



-Ruato Urupa





attachment 23 Te Wairoa



from Umupuia Beach

Waiheke	Waiheke Channel	Ponui	Whakakaiwhara (Duder Regional Park)		
				4	
			A STATE OF THE OWNER	Careto and	
		232			
				-	

from Umupuia Beach









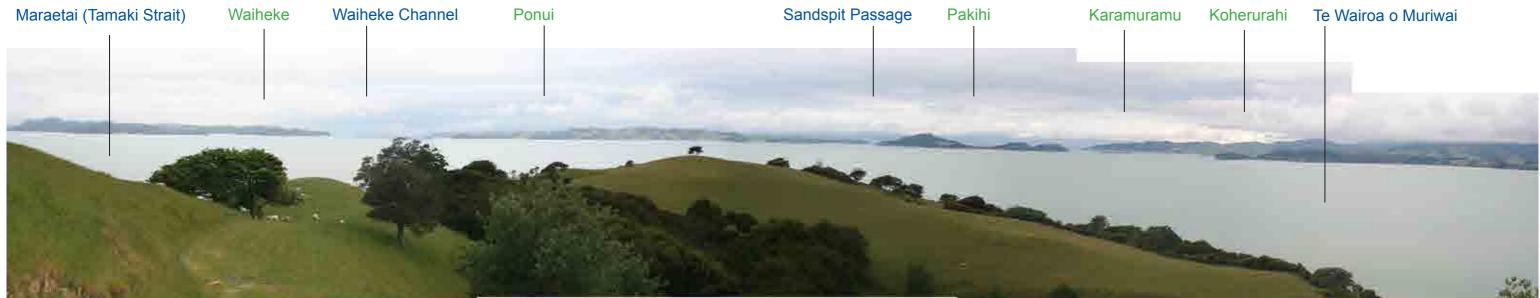
Entry to Duder Regional Park





Duder Regional Park





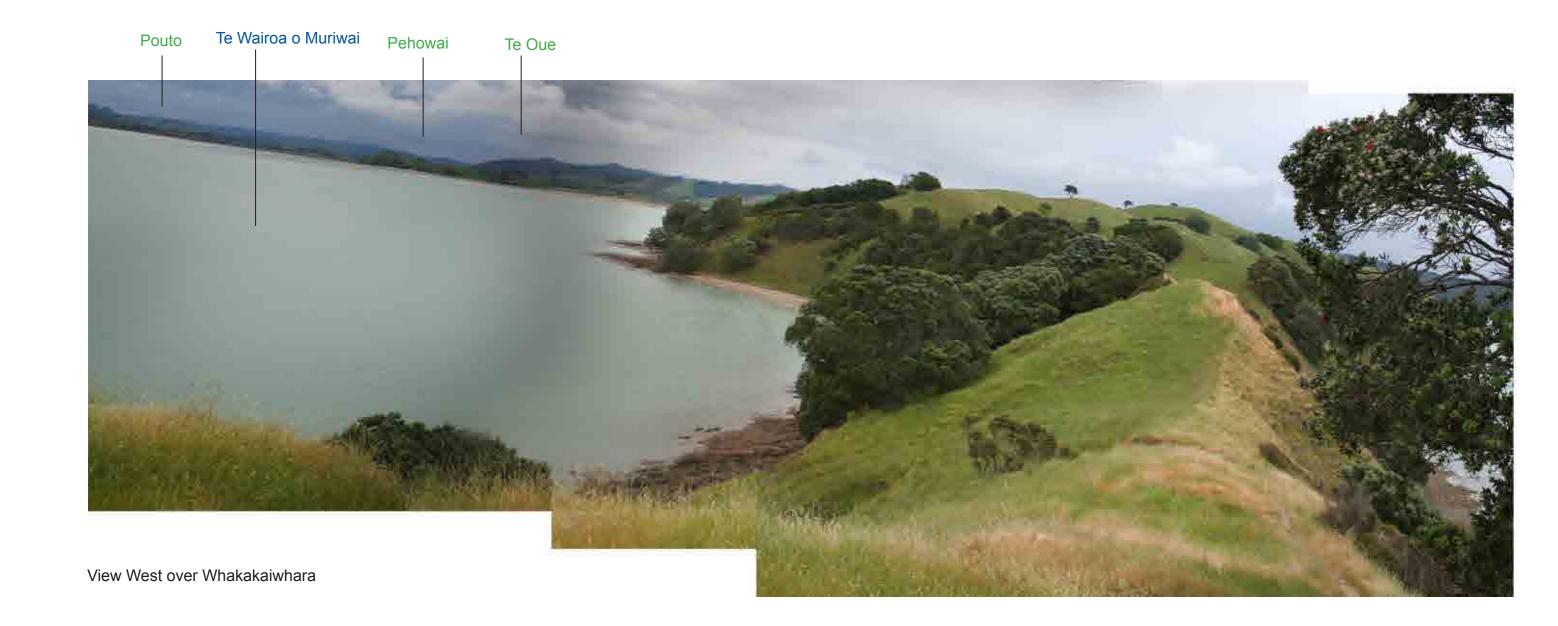
Whakakaiwhara



Whakakaiwhara



Whakakaiwhara towards Te Wairoa

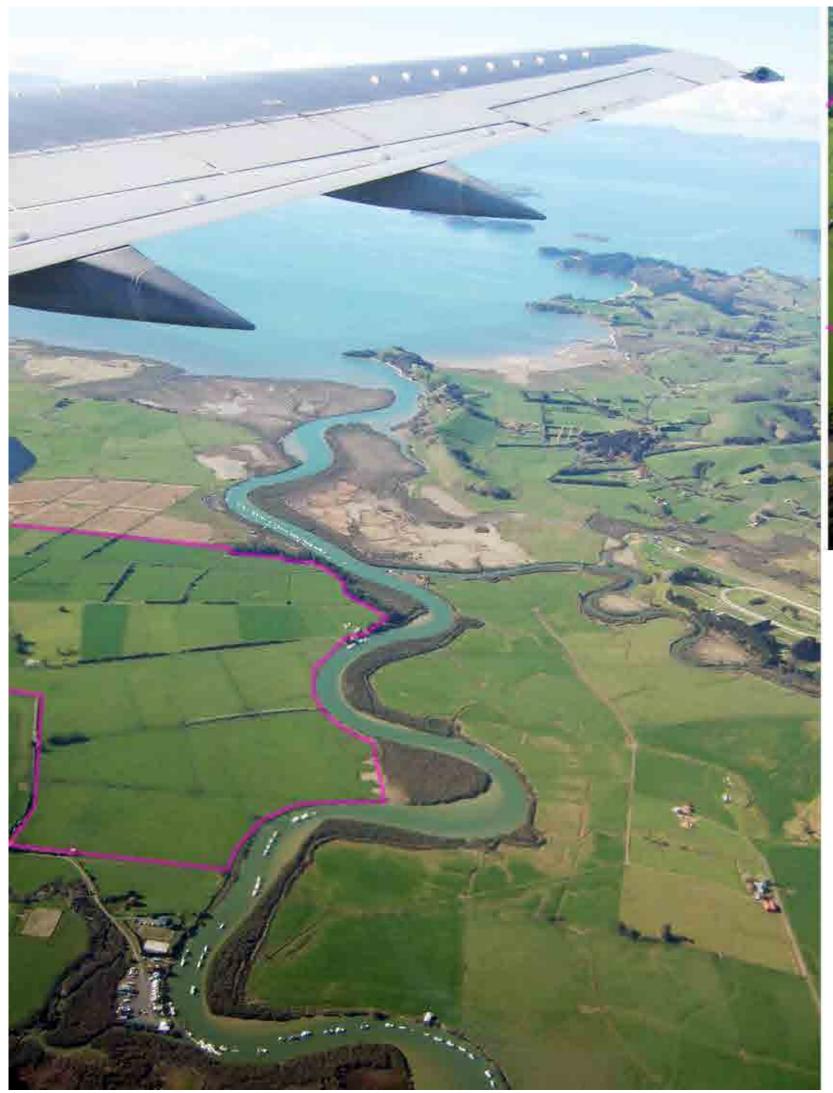








View West on Whakakaiwhara (Duder Regional Park)





Lucas Associates

landscape architects 'Marokapara' 351 Manchester Street Christchurch Aotearoa New Zealand



Phone: (03) 365-0789 Fax: (03) 365-0798 theteam@lucas-associates.co.nz www.lucas-associates.co.nz