

# “We are all Millionaire’s:

Rich in natural coastal beauty”



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**SAND  
DUNES**

Sandy beaches, Rocky headlands

**Our Coast**

Coast on which the sun shines

**Tairawhiti**

# Tairāwhiti: East Coast

One of NZ's most spectacular coastlines:

- **Scenic landscapes**

(16+: bay after bay, km after km)



- **Historically/culturally significant sites**

(Te Kuri, Titirangi, waka, CLS...)





# Tairawhiti: East Coast

- ‘Whale Rider’, marine reserve at Whangara
- Largely undeveloped = highly valued/prized worldwide.
- High natural character



**“Unmodified coastal environments (FREE FROM BUILT ELEMENTS) have the highest degree of natural character and therefore have the highest priority for protection and preservation” - MfE**

# Tairawhiti

- **World-class:** surf breaks, diving, fishing...



- **Coastal people, lifestyle**  
(proximity to: swim, fish, dive, surf...)

- **Long hot summers, offshore winds**



All together: we live in coastal paradise 😊



Our  
Coast

# Prominent Rocky Headlands

Rocky, stable headlands



Hugely significant (historically, culturally)



Spectacular scenery





# Our Coast Beautiful Sandy Beaches



Safe for Swimming, surfing



Highly-movable beaches



High natural character

# Our Coast Productive Estuaries/Lagoons



Food sources



Culturally important



High natural character

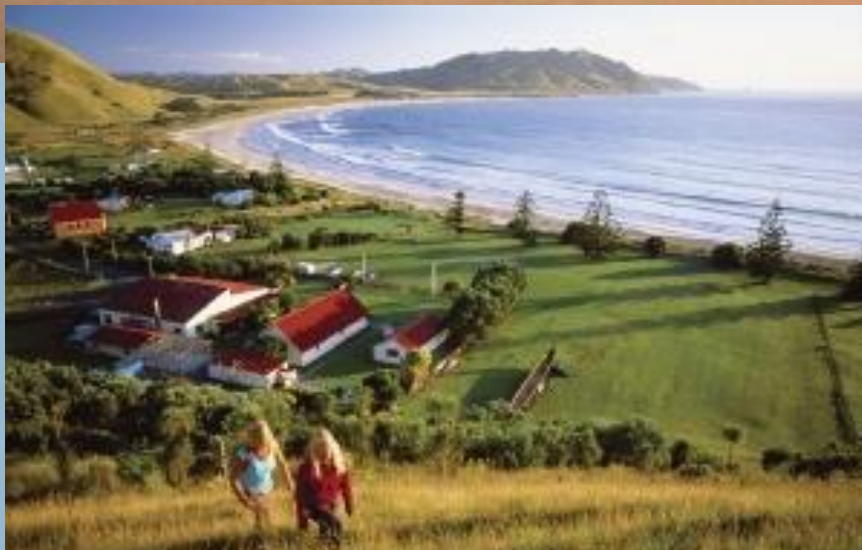


# Our Coast **Large Natural Sand Dunes**

## Range of Landforms



- Large foredunes
- Incipient, newly forming dunes



Examples:  
Wainui, Pouawa,  
Whangara, Kaiaua  
Beaches

# Our Coast **Large Natural Sand Dunes**



- Series of low dune ridges
- Sand spits

Examples:

Midway/Kopututea,  
Uawa/Tolaga Bay,  
Makorori





# Nat Character in Abundance



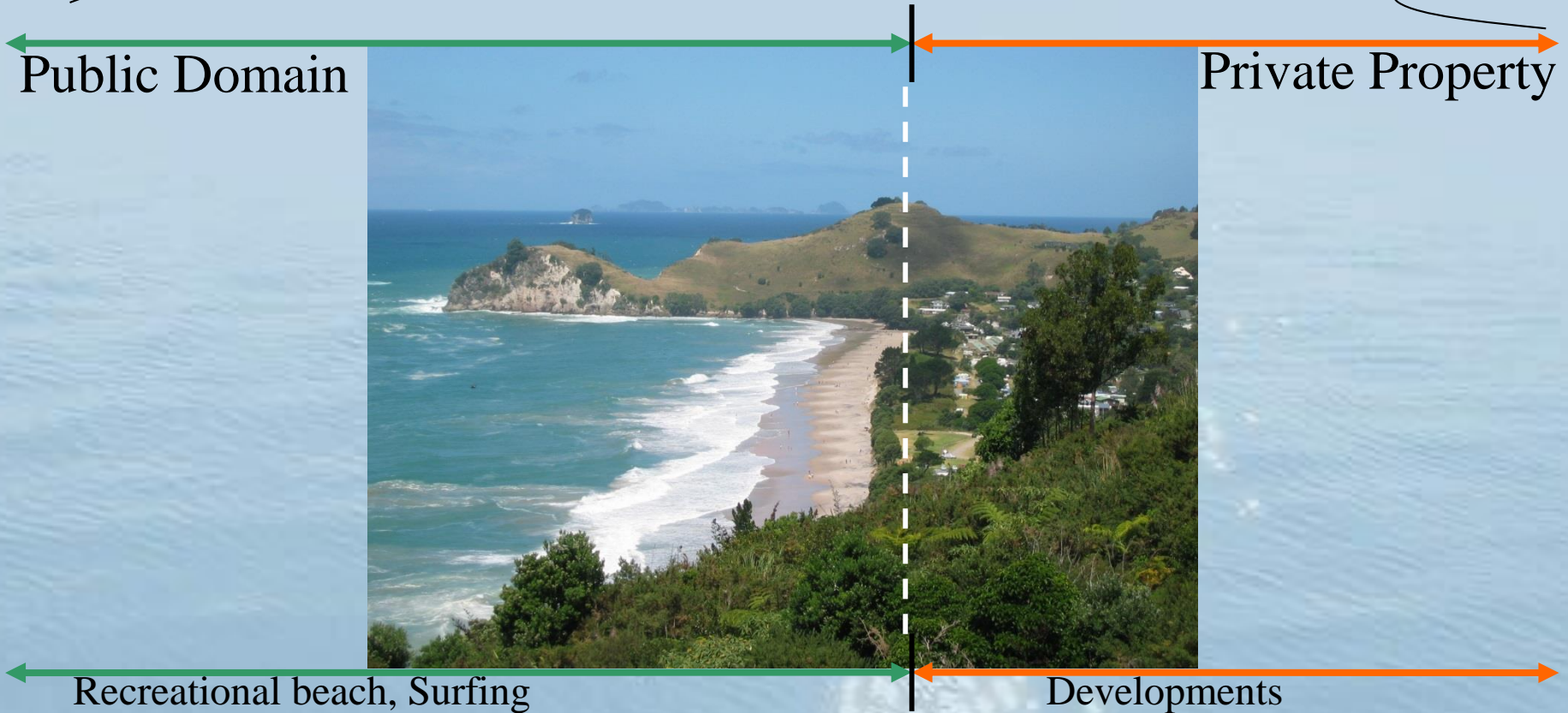
Extensive areas 'free from built elements... have the highest degree of natural character'



∴ 'highest priority for protection and preservation'

Tairawhiti has what the world wants! Coastal paradise

# Protecting Our Coast



**A place we all SHARE: tricky boundary**



# The Coast is a System

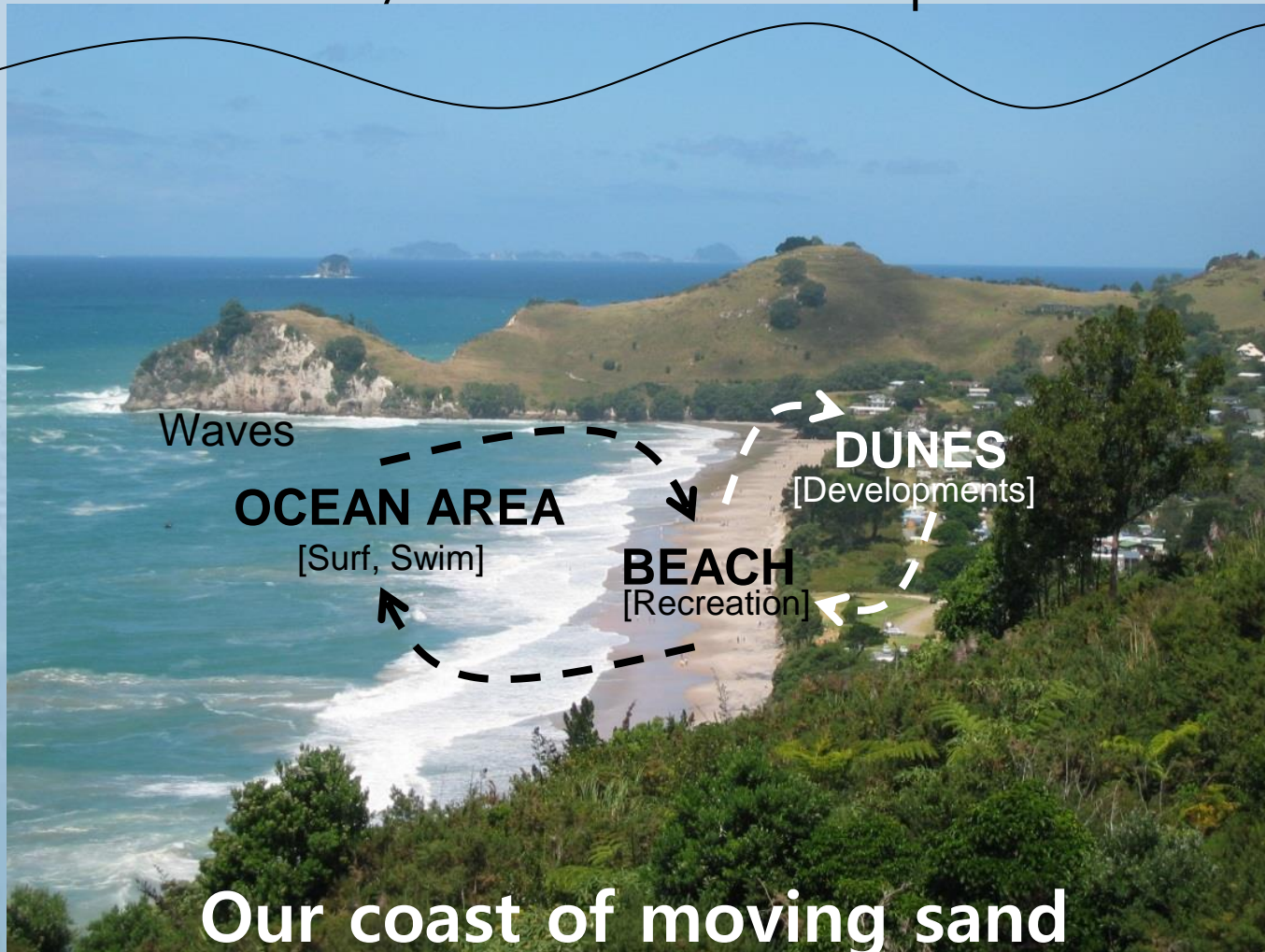
w/ Boundaries



Consider entire coastal system, not just one part

# The Coast is a System

w/ 3 interconnected parts



**Our coast of moving sand**

Sand constantly moves BETWEEN the parts



# Sand: designed to MOVE

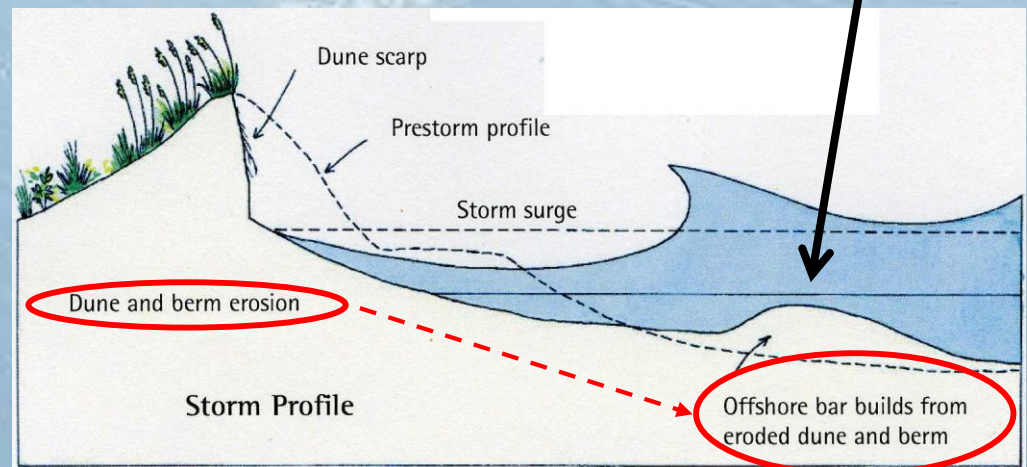
∴ beaches and dunes move too

Waves & currents create sand movement

During storms: sand moves & beach CHANGES SHAPE:

1. A broad, flat beach area (wave dissipation); and
2. Underwater sandbars are built in surf zone

As wave size ↑  
sand in motion ↑  
beach shape Δ ↑



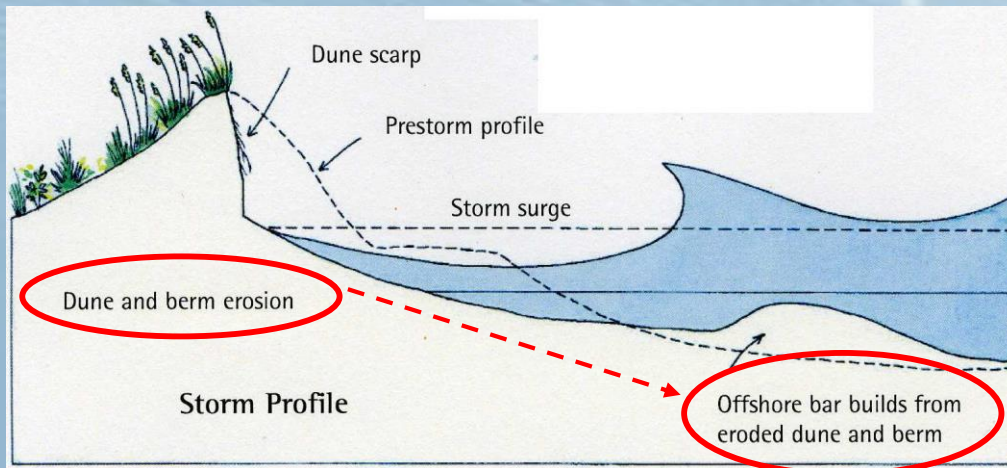
# MOVING SAND PROTECTS US

Erosion is a strategic retreat: a defense mechanism

Sand moves from berm/dunes to an underwater bar:

→ forces waves to break in surf zone

∴ max. wave energy not at shoreline 😊 (where houses are)



**Underwater sandbars**  
=  
**natural protection**  
+  
**world class surf breaks**



# DUNES = STORE OF SAND

## 1. Store of sand for beach:



= Natural sand buffer from storms

= Help build underwater sandbar (our surf breaks)

## 2. Beach needs dunes; dunes need beach

# Our Priorities



**Moving beach and dune sand performs a vital function – an ecosystem ‘service’.**

**1<sup>st</sup> Priority: Protect the function of beaches/dunes (sand) -**

- (a) Sand is to move freely (unimpeded exchanges) between dunes-beach-ocean area**
- (b) Sand-sharing between sand dunes and beaches (and the ocean area) is enhanced.**



# Our Priorities



**Our dunes, in a natural state, have high natural character**

2<sup>nd</sup> Priority: Protect areas w/ high natural character -

(a) Recognise & preserve sand dunes as natural landforms and landscapes, and development-free headlands (our natural coastal beauty)

**Here in Tairāwhiti...**

# **We are Millionaires**

Rich with natural coastal beauty



Thank you