

Te Arai dune lands

Community concerns about the environmental impacts of increased subdivision provision on the Te Arai dune lands of the Landscape Protection Zone Rural; Mangawhai/Pakiri



Christine Wild for the Te Arai Beach Preservation Society

2013

CM Wild evidence

Paragraphs 1-8

Te Arai Beach Preservation Society

TE ARAI PROTECTION SOCIETY
 INDEPENDENT REVIEW and MANAGEMENT
 PLAN for THE N. Z. DOTTEREL CARE GROUP
 John Ogden 2012
 Supported by ASB Community Trust

ARAI
 TEARAI.KETE.NET.NZ
 TE ARAI BLUE © ROWAN KLEVSTUJ

Te Arai's coastline has been shaped over millennia by exposure to swells and winds coming in from the Pacific Ocean. Lacking the protection of the Hauraki Gulf, Te Arai's high energy input makes for a prized surfing spot as well as an important habitat for many of New Zealand's threatened shore species.

Its wild character is not only enjoyed by visitors but is critical for these species survival. Its remoteness makes Te Arai one of Auckland's last coastal refuges.

You share Te Arai with:

16 FIND OUT ABOUT TE ARAI'S SIXTEEN THREATENED SPECIES - TEARAI.KETE.NET.NZ

Species photos kindly supplied by: [List of species names]

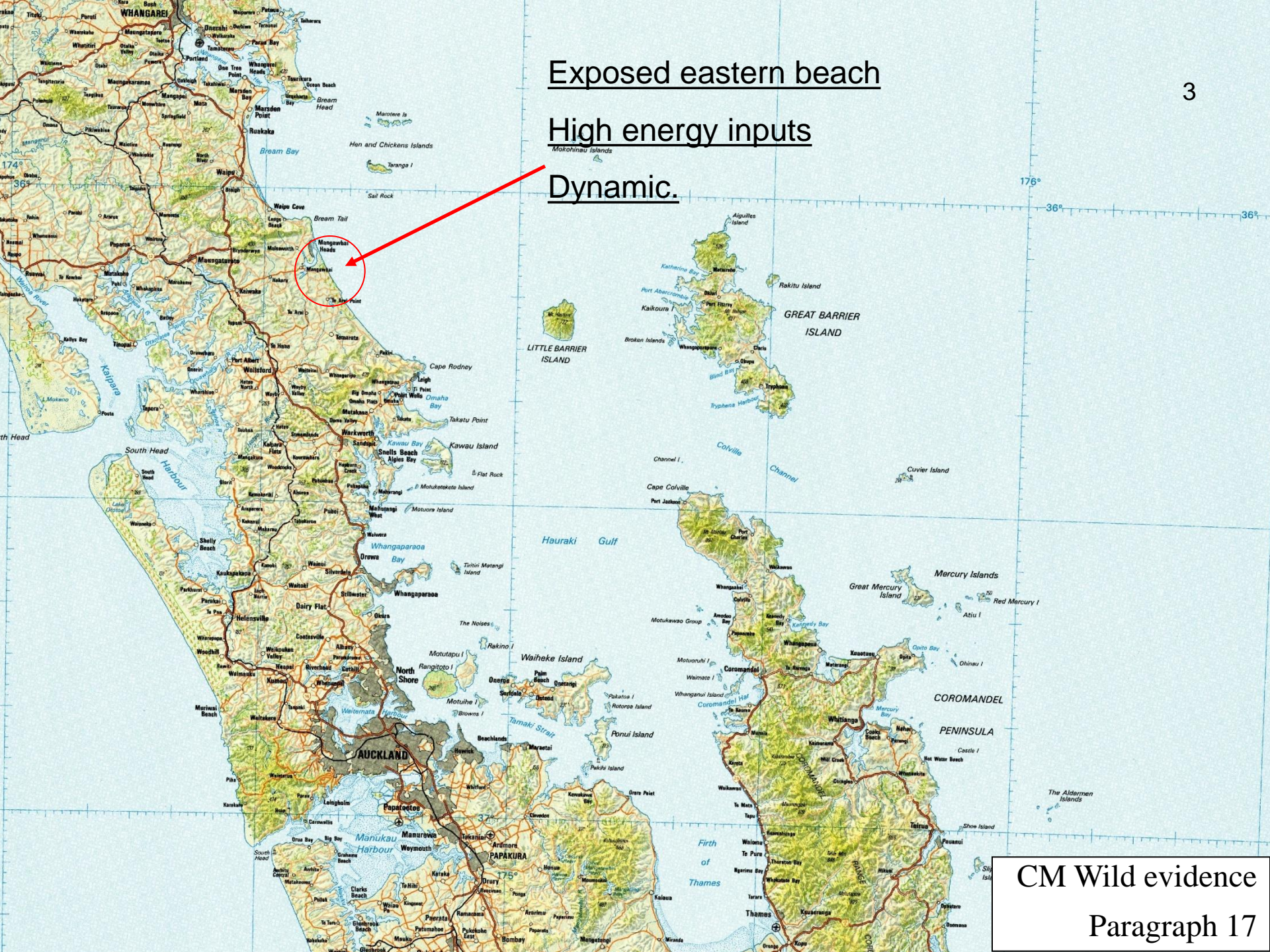


Female (left) and male New Zealand dotterels in breeding plumage



www.TEARAI.KETE.net.nz

CM Wild evidence
 Paragraphs 10-16



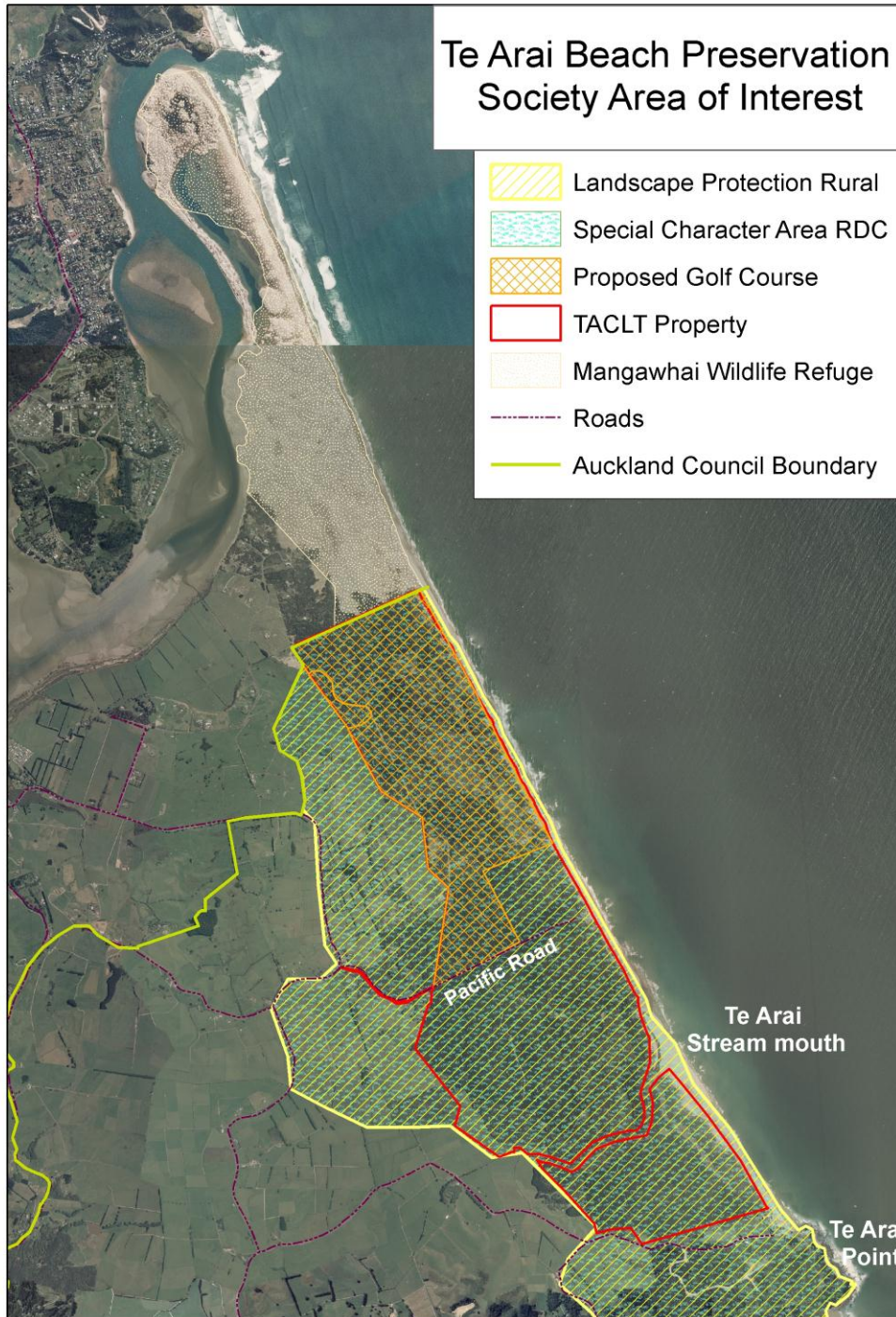
Exposed eastern beach

3

High energy inputs

Dynamic.

CM Wild evidence
Paragraph 17



Landscape Protection Rural Zone Objective 7.8.3.1.1

To protect and retain the natural, coastal, non-urban and "remote" character of the Mangawhai to Pakiri coastline and related inland area on the east coast ..

To protect and enhance wherever possible, the high value landscapes, and significant natural areas and features, including streams, rivers, lakes, estuaries, harbours and wetlands within the zone.

Proposed private plan change 166 area covers 616 hectares, or 60% of the northern part of the Landscape Protection Rural zone

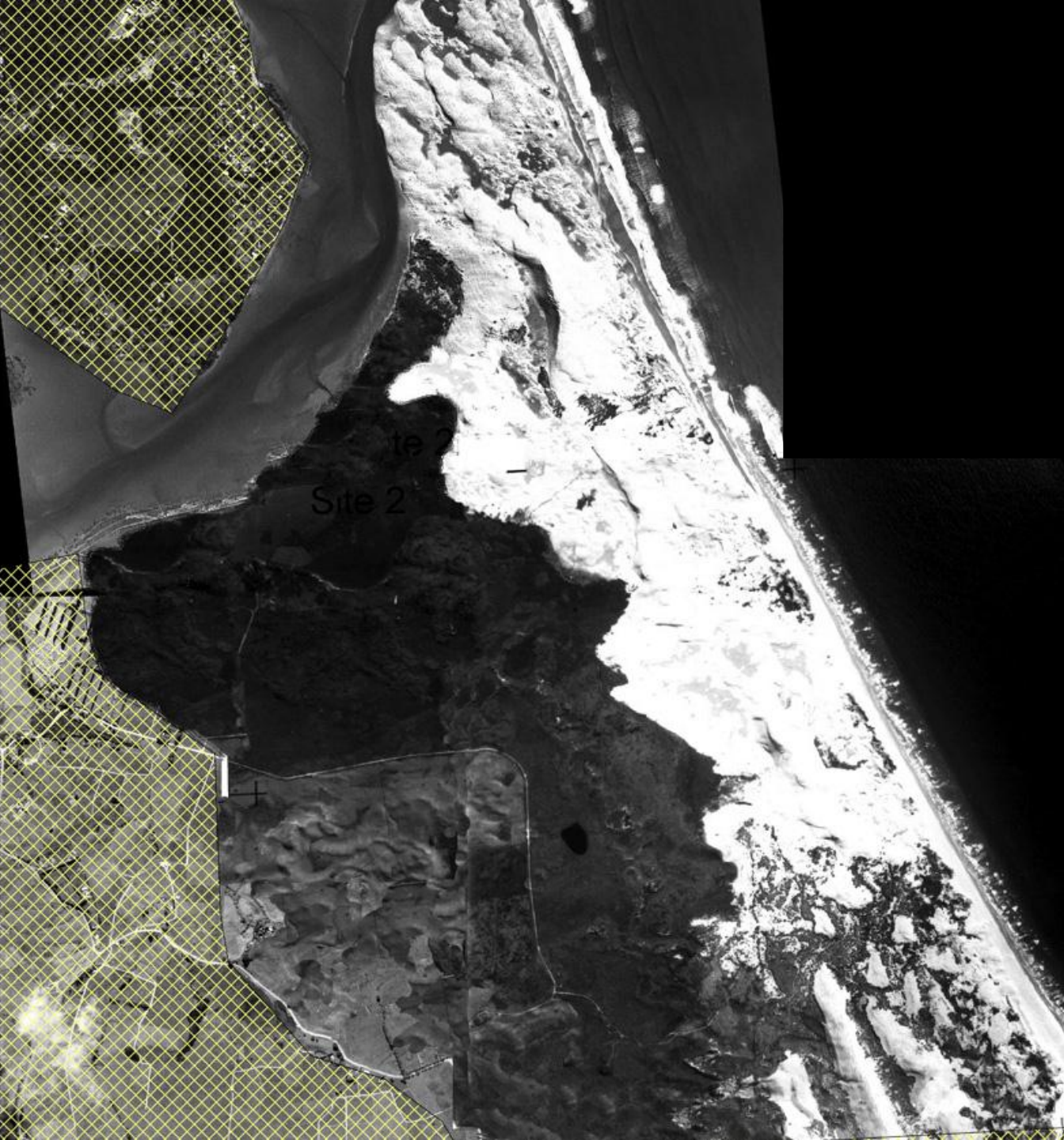
CM Wild evidence

Paragraph 19

Te Arai's ecosystems: past and present

**An environment of regional
and national significance**





6

Pre1940⁶

Unconsolidated
sand dunes
and
coastal
shrublands

Source; NZ Air Force, 1942

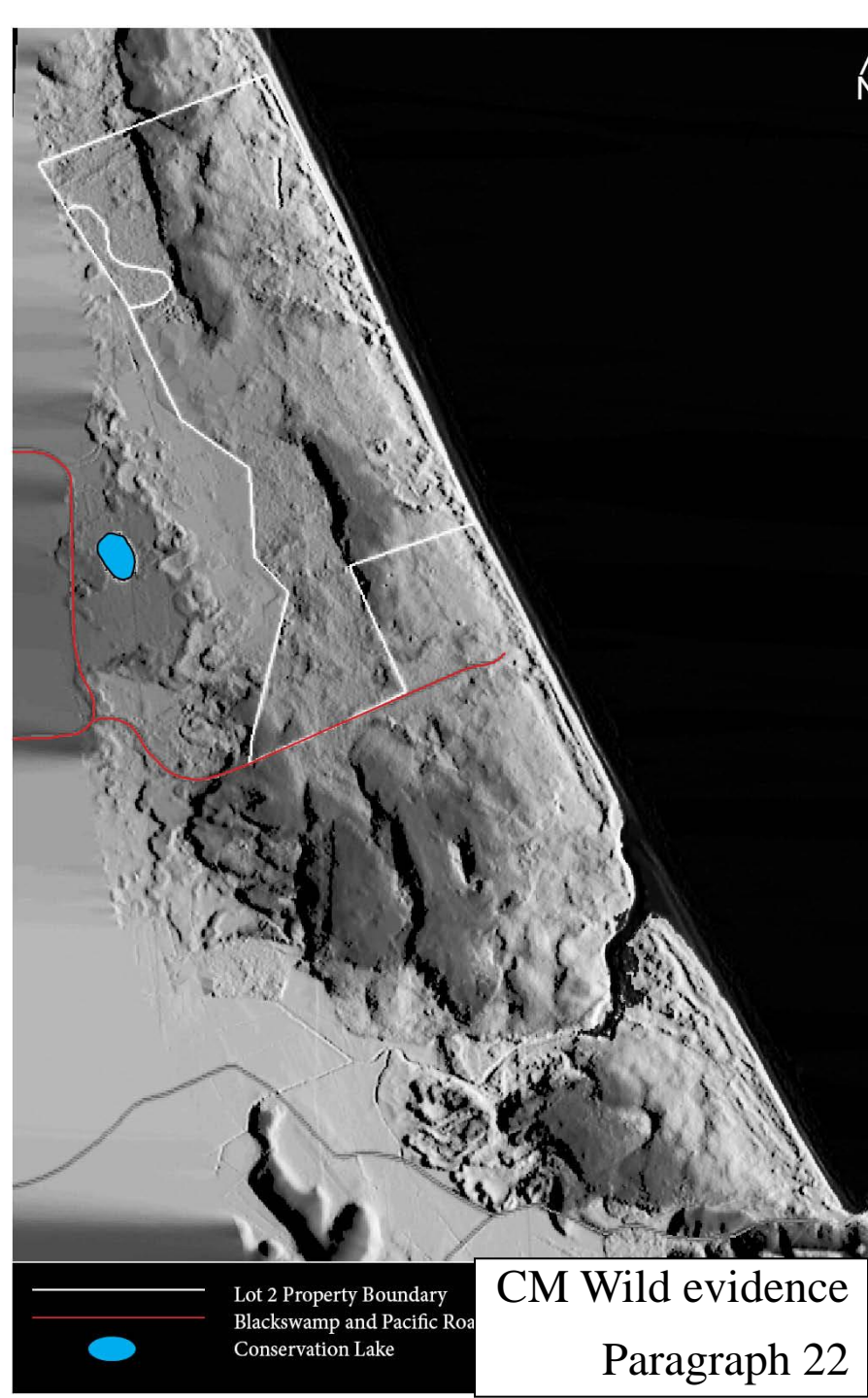
CM Wild evidence
Paragraph 20



1950-60s
State Forest

Swampland and
Shrubland drained
for farming. Pine,
Lupin and Marram
planted

Source; Terralink 2006



— Lot 2 Property Boundary
— Blackswamp and Pacific Road
● Conservation Lake

CM Wild evidence
Paragraph 22

Te Arai Today

Four important ecosystems
in eight impact zones

'Its outstanding natural values have been sustained mainly due to its remoteness'. (Ogden 2012).

>Peat

>Freshwater

> Dunes

and

Shore

*“The coastal dunes and beach system on, and adjacent to the subject site at Te Arai beach,
are of regional and national ecological, wildlife and heritage significance.”*

Dunes are recognised as a matter of national importance in Part II section 6 of the RMA, and in the New Zealand Coastal Policy Statement (Policy 1.1.2(c)) and must be protected from inappropriate subdivision, use, and development as a matter of national priority.”
(Stanley 2009)

Te Arai Threatened and At Risk species:National threat categories

Birds

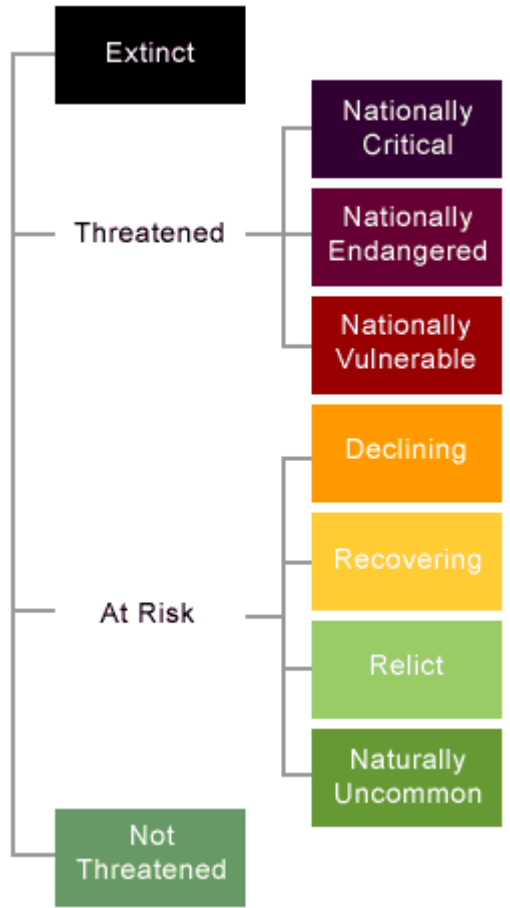
		zone
1 NZ Fairy tern	1.Nationally critical	1, 7
2 Grey Duck	1.Nationally critical	8
3. Australasian bittern	2.Nationally endangered	7 ,8, 4a
4. Black billed gull (Larus bulleri)	2.Nationally endangered	1, 7
5. Northern NZ dotterel	3.Nationally vulnerable.	1, 2a, 2b, 7
6. Caspian tern	3.Nationally vulnerable	1, 7
7. Banded dotterel	3.Nationally vulnerable	1, 7
8. Red billed gull	3.Nationally vulnerable	1, 2a, 2b, 7
9. Pied shag	3.Nationally vulnerable	1, 7
10. White-fronted tern	4. Declining	1, 7
11. North Island fernbird	4. Declining	7,8
12. Pied stilt	4. Declining	1, 7
14 Spotless Crake	6. Relict	7, 8
13 Banded rail	7. Naturally uncommon	7, 8

Herpetofauna and Arachnid

15. Auckland green gecko	Gradual decline	6
16. Katipo Spider	Serious Decline	2a, 2b
17. Shore skink	Rare on mainland Auckland	2a, 2b, 3, 7

Flora:

18. Rawiri	Serious Decline	6
19. Sand Tussock	Gradual Decline	7
20. Pingao	Gradual Decline	2a, 2b, 7
21 Sand Coprosma	Gradual Decline	2a
22 Empodisma minus	Regionally Critical	4a



CM Wild evidence
Paragraph 26, 30

Threatened Species : the where as well as the what.

Fig. 2 Study skins collected by W.J. Cheeseman and prepared by E. Cheeseman. Scale: exposed culmen length (mm). A, black stilt (*Himantopus novaezelandiae*) LB3413, Mangere 1879 (66.2). B, fairy tern (*Sterna nereis*) LB4931, Orakei 1878 (26.8). C, kaka (*Nestor meridionalis*) LB2455, Titirangi 1878 (41.8). D, kokako (*Callaeas wilsoni*) LB4520, Titirangi 1878 (28.2). E, tui (*Prothemadera novae-seelandiae*) LB4434, Titirangi 1877 (24.5). Photos: John Pusateri.



Regional Significance Te Arai Ark for threatened coastal species on Auckland mainland



NZ fairy tern-
Internationally, nationally
and locally significant



Sand tussock
16 plants left on mainland Auckland
6 Te Arai and 10 Pakiri
Source DoC Threatened plant database



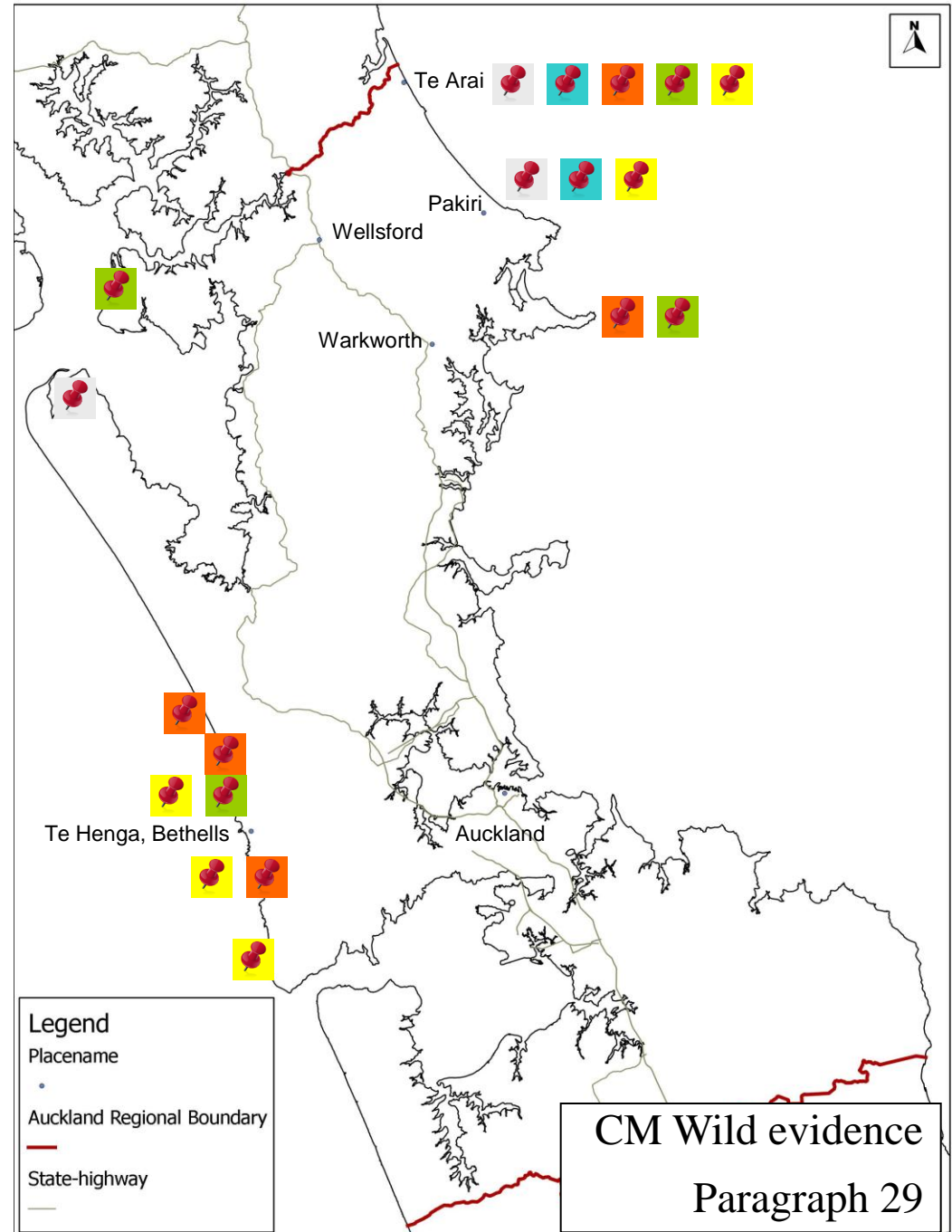
Sand Coprosma remains only at
Te Arai, Karekare, Kariotahi,
Muriwai and Tawharanui
Source DoC Threatened plant database



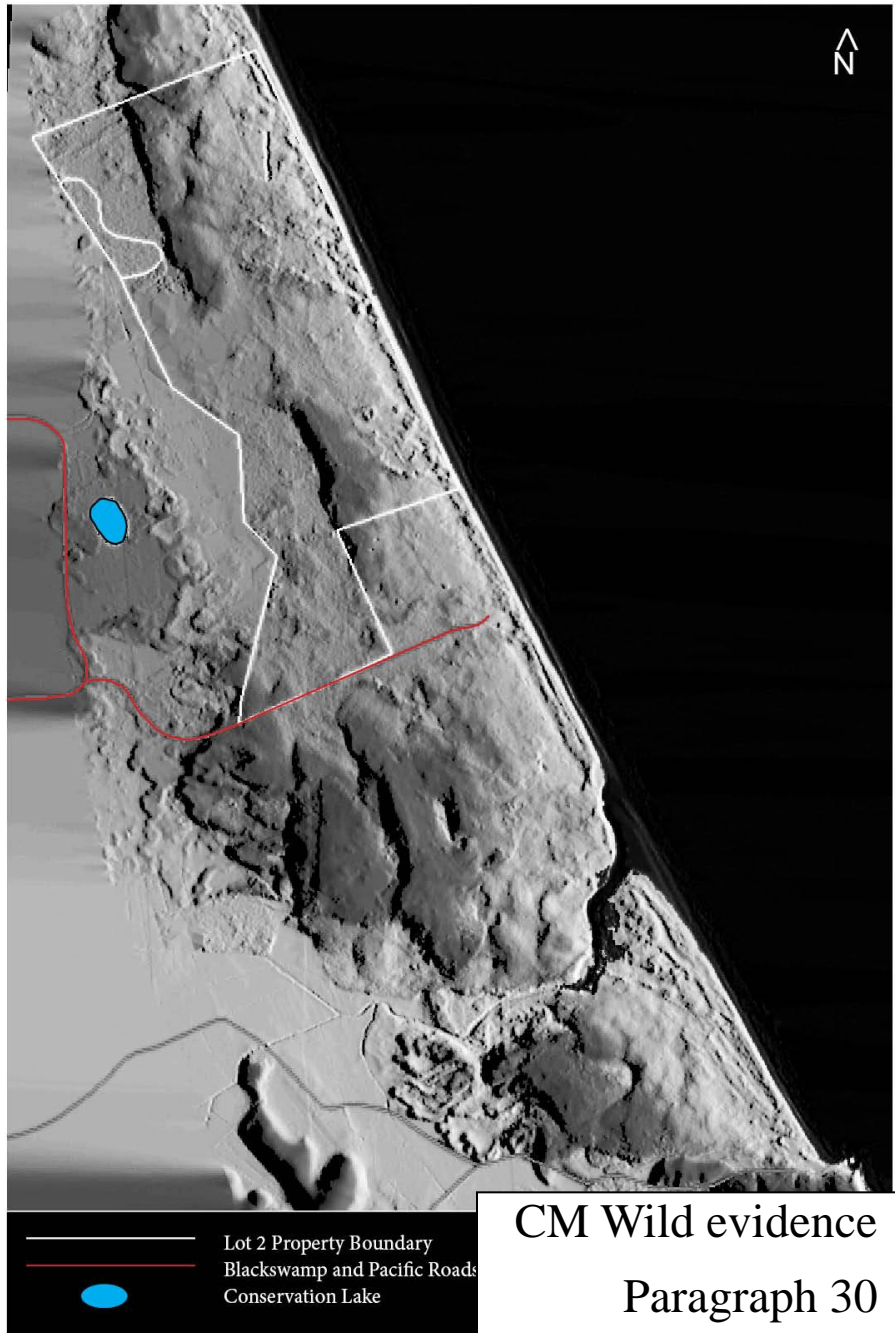
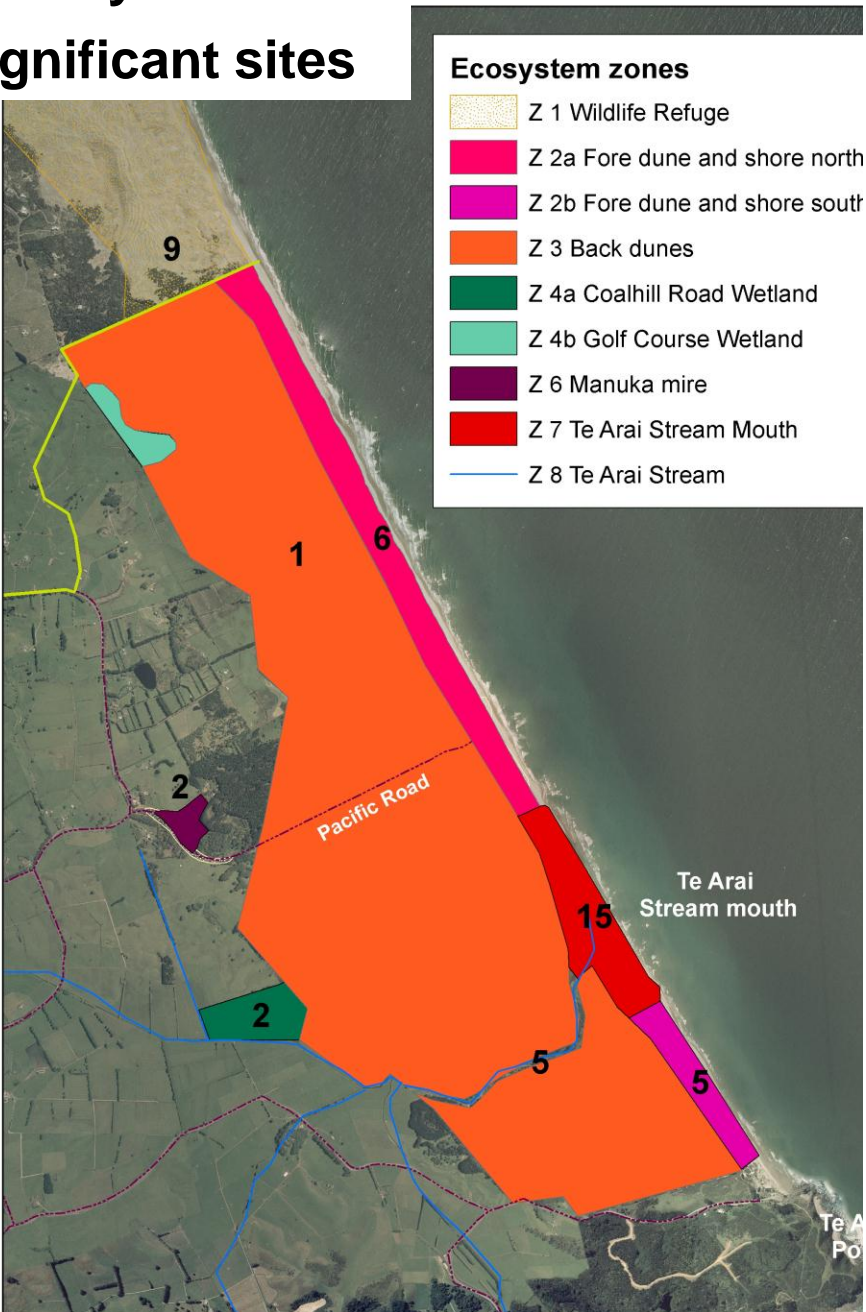
Shore Skink
Te Arai, Taporā, Tawharanui
NI Skink Recovery Plan 2002-2012
D.o.C Threatened Species Plan 48

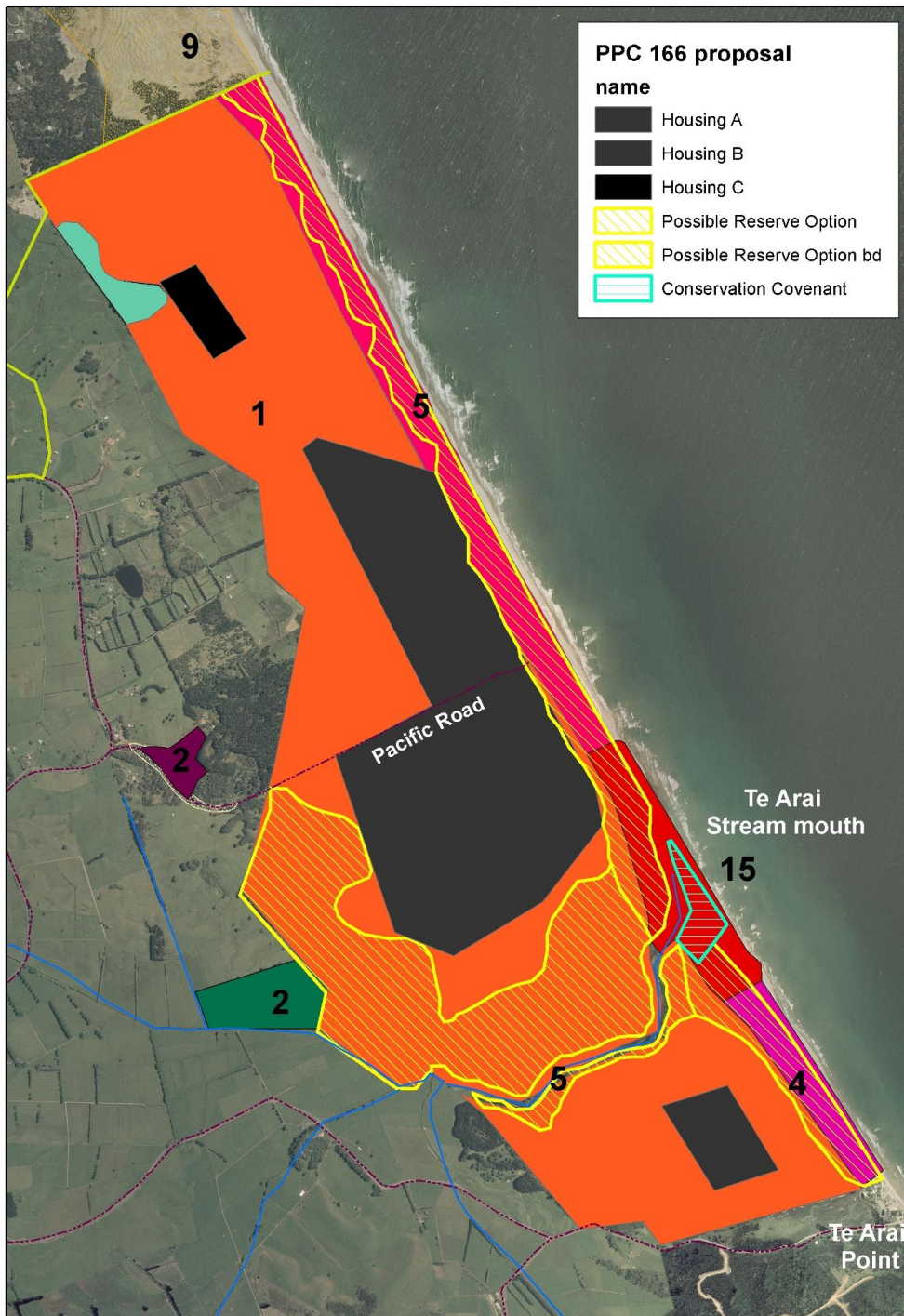


Pingao + Katipo
Source DoC Threatened plant database



Locally significant sites





The relationship of the proposed housing zone and land proposed for gifting into public ownership in lieu of SEP application to the habitat zones and threatened species distribution.

TACLT area required to meet SEP requirements should the application be successful.

550m dune restoration setback



SEP Discretionary in

Discretionary Activities may be appropriate in the zone and are assessed against assessment criteria which are included in the Plan, the Objectives and Policies of the Plan and the relevant matters set out in the Act.

Rule 7.15.2

Policy 7.4.10

Rule 7.14.4

Subdivision for Significant Enhancement Planting

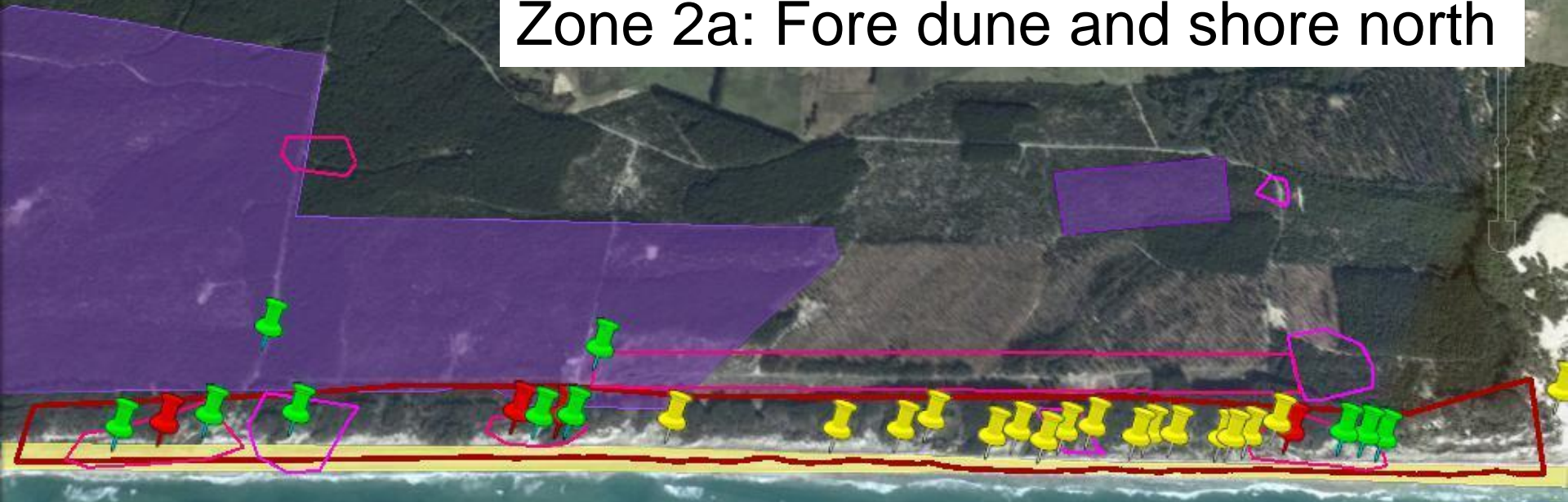
SEP rules require all plantings to adjoin existing native vegetation. The coastal fore dune plants predominantly provide this on the TACLT site.

CM Wild evidence

Paragraph 32

Threatened dune species

Zone 2a: Fore dune and shore north



Skink and Spider Survey 2008

Boffa Miskell (sites surveyed in pink)

Katipo	RED	93 individuals found
Shore Skink	GREEN	22 individuals found

Coprosma Acerosa Survey ARC 2009

	YELLOW	18 patches found
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Z2 Fore dune and shore north



CM Wild evidence

Paragraph 34

Google earth

Image © 2013 DigitalGlobe

2006

Imagery Date: 7/28/2006 36°07'53.99" S 174°37'16.26" E elev 18 m eye alt 2.20 km









CM Wild evidence
Paragraph 37

Zone 7 Te Arai Stream Mouth

- Utilised by 15 threatened or at risk species

- Including providing nesting areas for
 - : NZ Fairy Tern - **Nationally Critical**
 - : Northern NZ dotterel - **Nationally Vulnerable**

CM Wild evidence

Paragraph 37-40



Te Arai Stream

Proposed Golf Course site

Mangawhai Wildlife Refuge

Nesting Areas

- Red NZ Fairy tern
- Yellow Northern NZ Dotterel
- Blue Caspian tern

NZ Fairy Tern- Critically Important Habitat.



“Since the 1950s it appears
that habitat loss, modification and
degradation coupled with increased
disturbance by humans
has been the major cause of the
decline in Fairy Tern” (distribution) Parrish 1993



CM Wild evidence

Paragraph 38-41

NZ Fairy tern use Te Arai stream for

Courting

Nesting

High tide roosting

Feeding

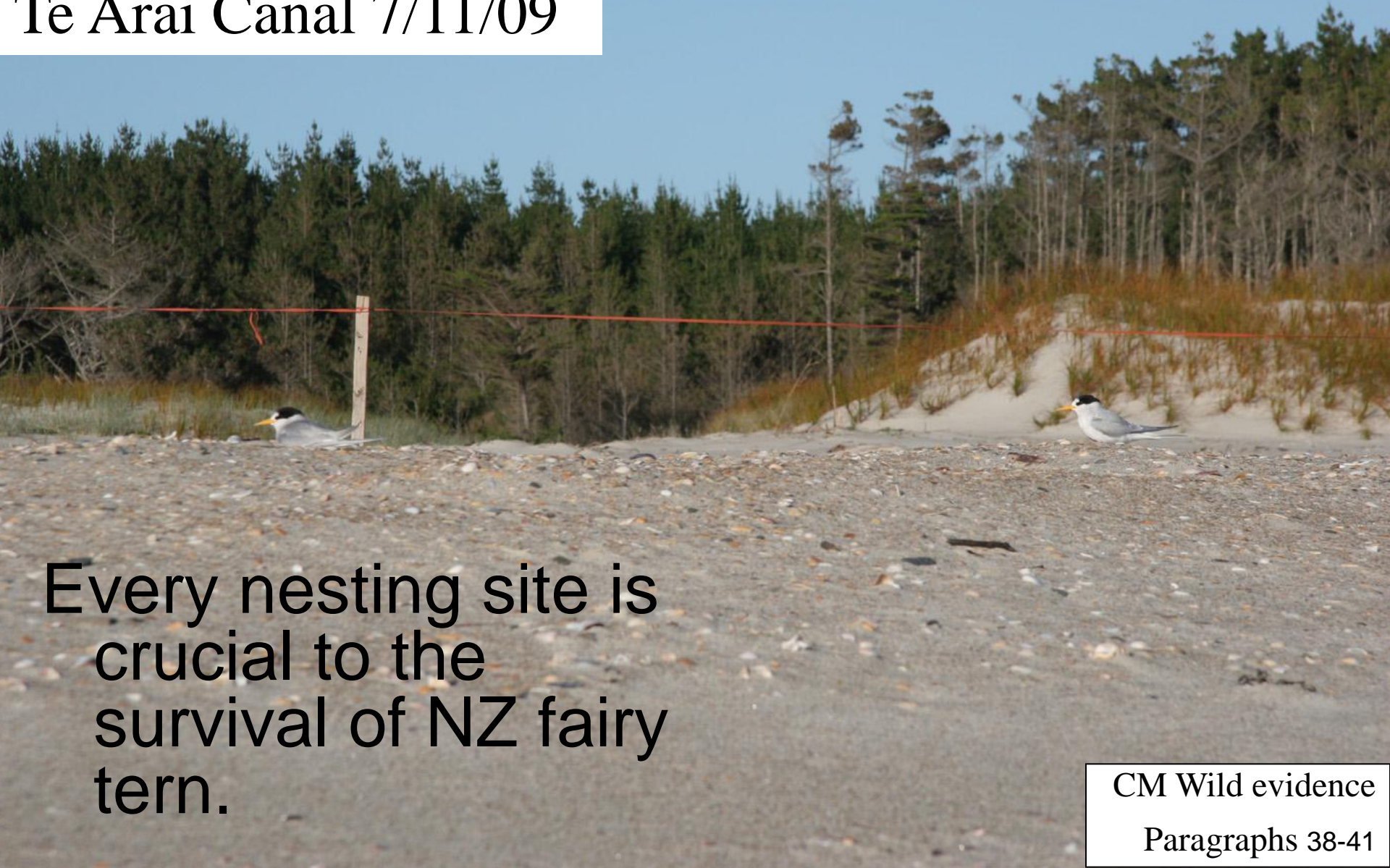
Teaching young to fish

Post breeding flocking site

CM Wild evidence
Paragraph 38-41

NZ Fairy Tern pair prospect nesting


Te Arai Canal 7/11/09



Every nesting site is
crucial to the
survival of NZ fairy
tern.

A well resourced, well trained, efficient, reliable and experienced Community of Care already exists at the Te Arai Stream Mouth.

Rosters provided daylight care for this bird until the nest was destroyed at night.

A Fairy tern is shown sitting on a nest of two eggs on a sandy beach. The bird has a black cap and a yellow beak. The nest is located on un-vegetated sand. The background shows a wide expanse of beach with scattered shells and debris.

Fairy tern sitting on two eggs at
Te Arai Stream mouth 2012.
Fairy tern nest on un-vegetated sand.
le SEP of no benefit to them.

CM Wild evidence

Paragraph 40

The first egg laid at
Te Arai 2012.



CM Wild evidence
Paragraph 38-41



Northern NZ Dotterels

- Currently, 8-9 pairs nest at the Stream mouth each year. With six to seven more spread north and south
- Mangawhai/Te Arai is the most important site for nationally NNZD.

“Te Arai Stream is a site of national significance for New Zealand dotterels in its own right. In recent years, the number of pairs at this site has increased, and pairs now breed in the dunes up to 1 km south of the stream” (Dowding 2006)



CM Wild evidence
Paragraph 42-46



Te Arai Stream Dotterel nesting sites 2011-12



CM Wild evidence
 Paragraphs 26-27

CM Wild evidence
 Paragraph 42-46

Te Arai Stream Dotterel and Fairy Tern nesting sites 2012-2013



CM Wild evidence
Paragraph 42-46

Studies show human disturbance negatively effects shorebirds by “modifying key behavioral traits that are crucial to their survival and reproduction”

(Burger 1991,1994, Lord et al 2001, Verhst et al 2001)

- a) Changes in foraging behavior resulting in less time spent feeding, shifts in feeding times, and decreased food intake.
- b) Decreased parental care when disturbed birds spend less time attending the nest, thus increasing exposure and vulnerability of eggs and chicks to predators.
- c) Decreased nesting densities in disturbed areas and population shifts to less impacted sites.
- d) Chick deaths- trampling, starvation and predation.

CM Wild evidence

Paragraph 48

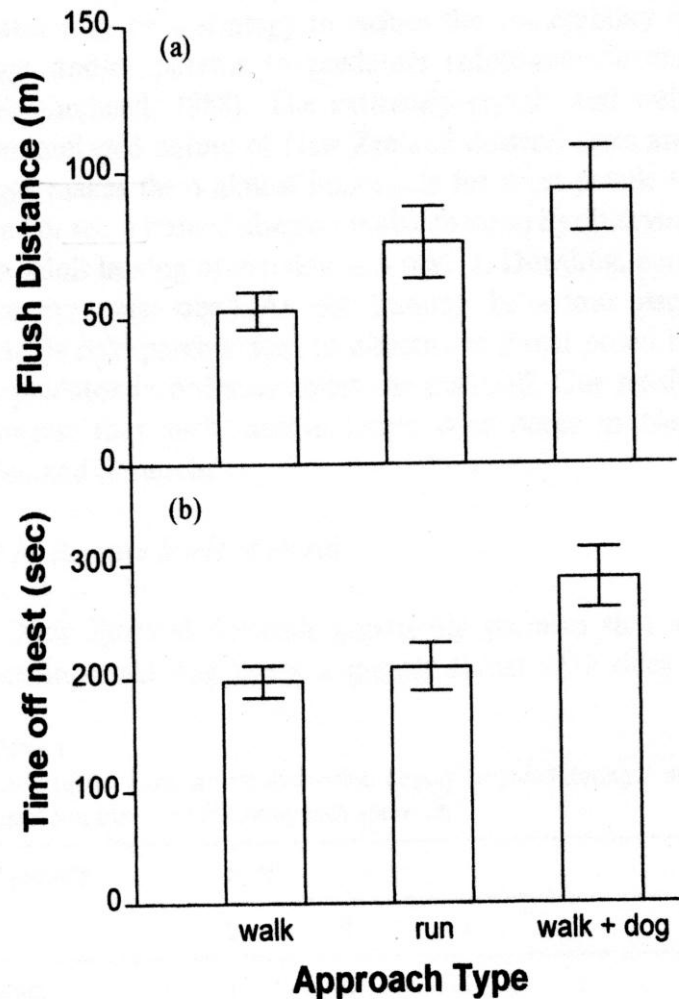


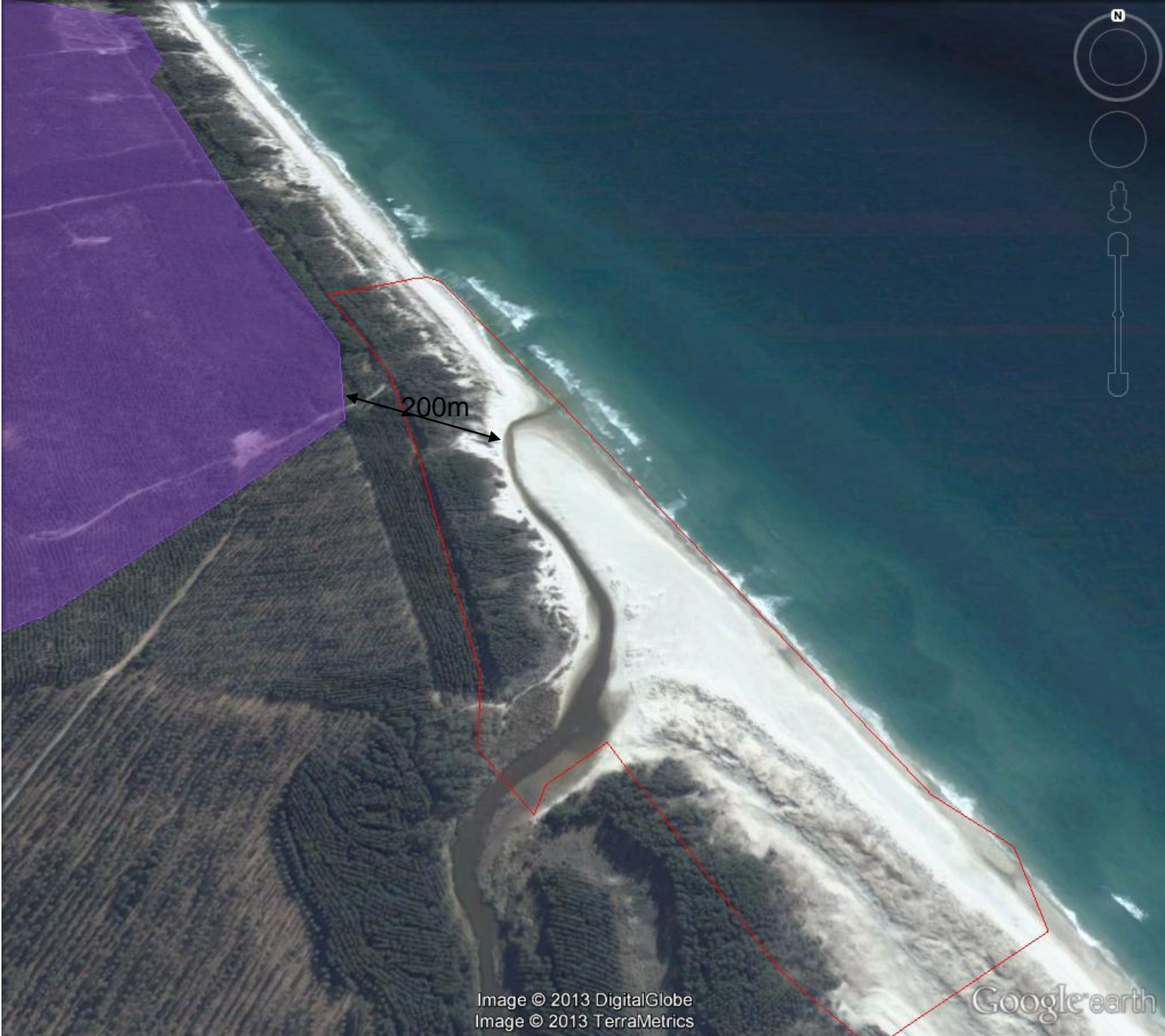
Fig. 19. Effects of people on beaches walking, running, or walking with a dog on dotterel behavior.

Flush distance is the distance the person or dog is from the nest when the sitting bird leaves. (Lord et al., 2001).



Te Arai Stream mouth July 2013

CM Wild evidence
Paragraph 49



200m

Image © 2013 DigitalGlobe
Image © 2013 TerraMetrics

Google earth

2006

Imagery Date: 7/28/2006 36°08'49.43" S 174°38'10.74" E elev 1 m eye alt 800 m



Te Arai Stream mouth July 2013

CM Wild evidence
Paragraph 49

Zone 8 Te Arai Stream through TACLT property

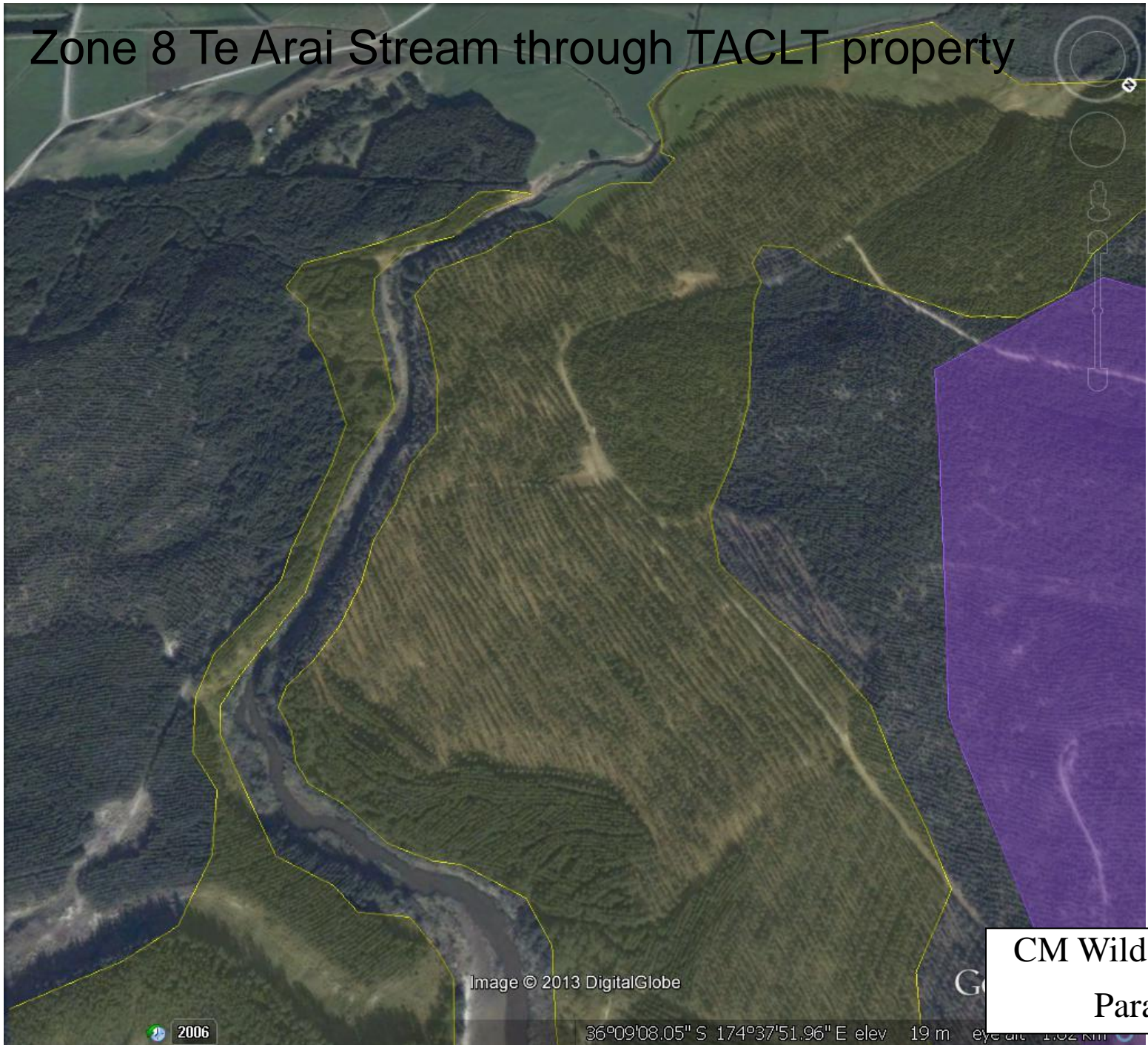


Image © 2013 DigitalGlobe

CM Wild evidence
Paragraph 48

2006

36°09'08.05" S 174°37'51.96" E elev 19 m eye alt 1.02 km

Zone 8 Te Arai Stream

Grey Duck

Australasian bittern

North Island fernbird

Banded rail

Spotless Crake

1. **Nationally critical**

2. **Nationally endangered**

5. **Declining**

5. **Declining**

5 **Declining**



CM Wild evidence

Paragraph 50

Te Arai Stream



CM Wild evidence
Paragraph 48

Environmental Impacts of the proposed increase in subdivision provision on the Te Arai dunes is likely to result in:

Increased people presence.

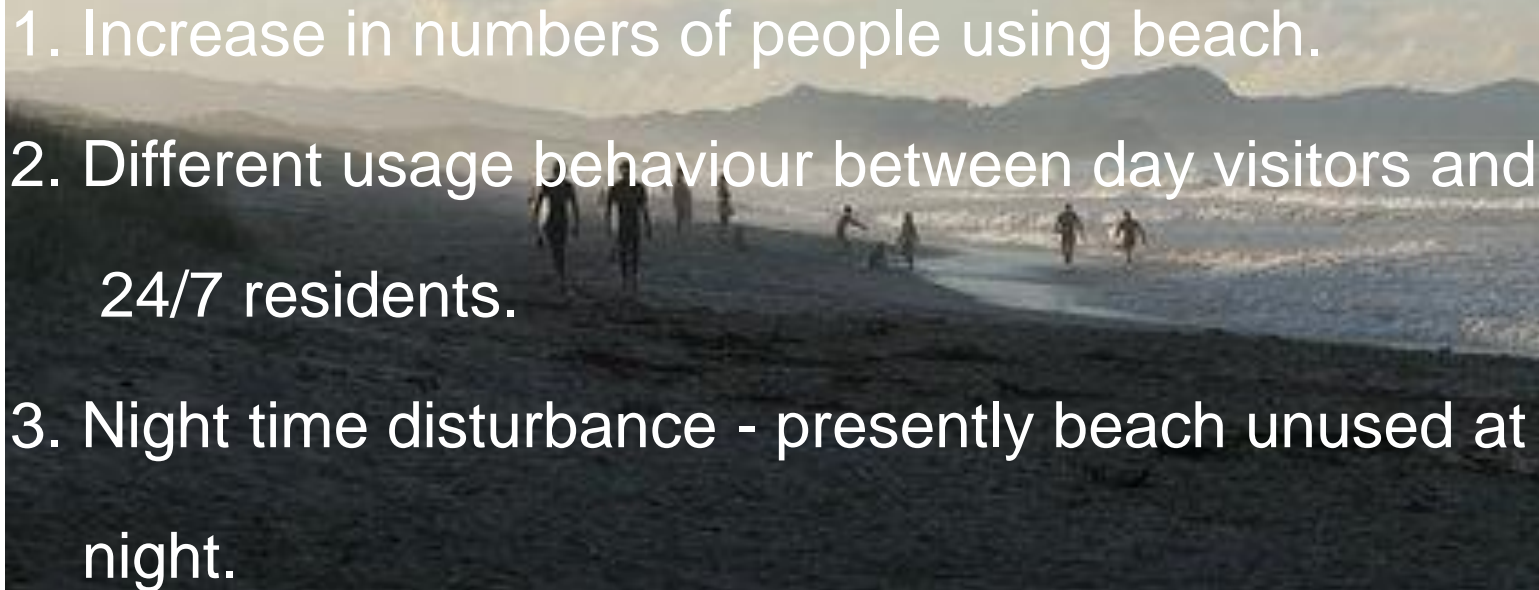
Increased human associated pest species both fauna and flora.

Increased loss and degradation of habitat.

CM Wild evidence

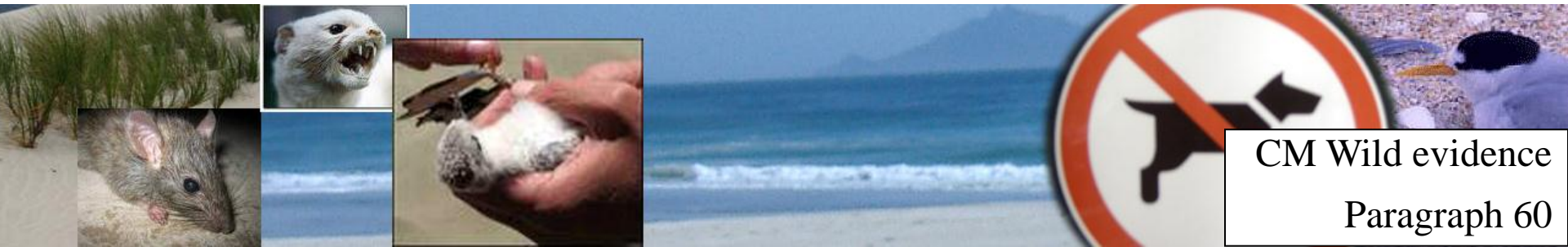
Paragraph 53

Residential settlement within Te Arai Dunelands will change beach usage patterns

- 
1. Increase in numbers of people using beach.
 2. Different usage behaviour between day visitors and 24/7 residents.
 3. Night time disturbance - presently beach unused at night.

Residential Settlement within the Te Arai Dune lands will introduce more pest threats ⁴³

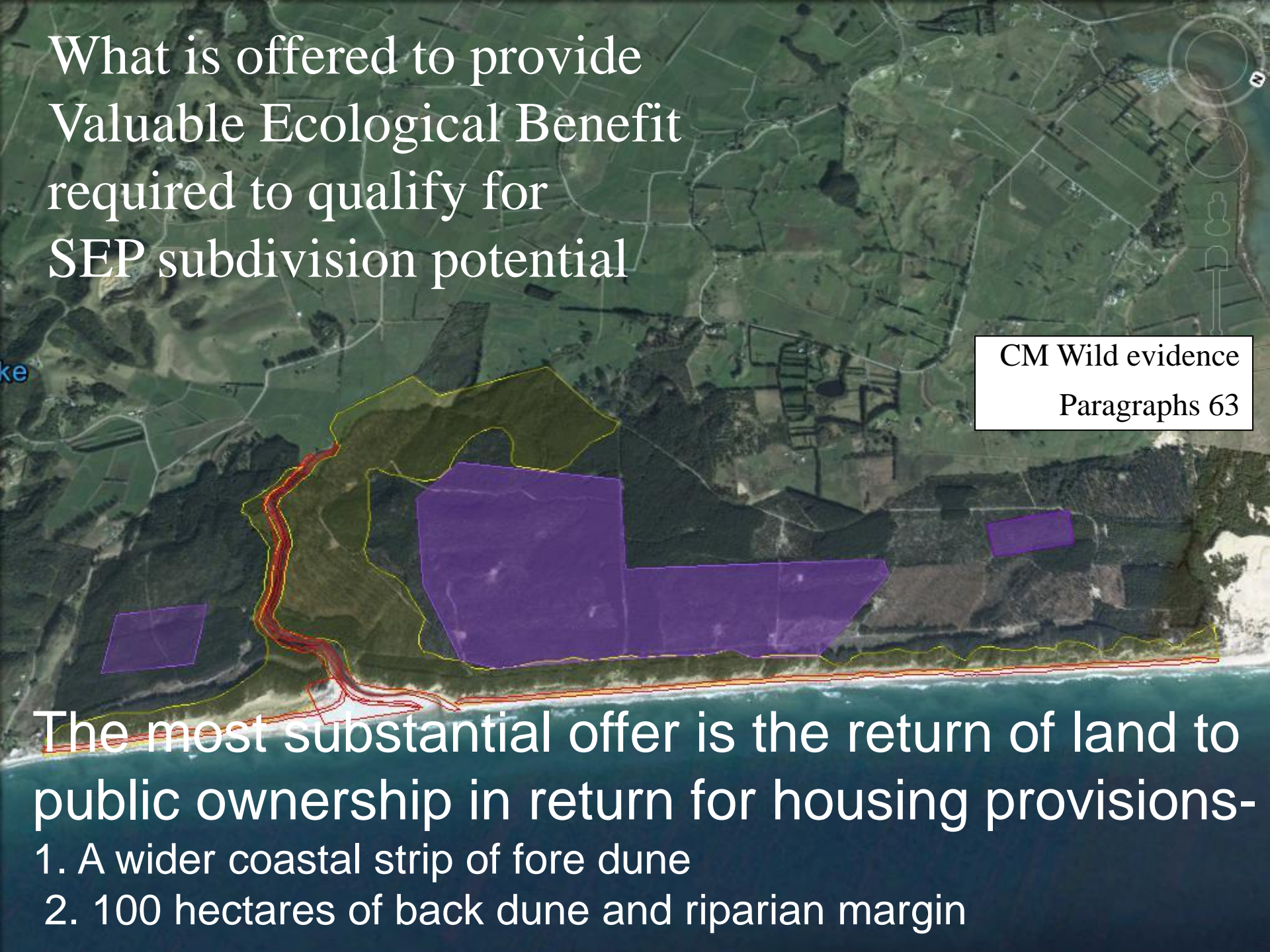
- Change in ecology, e.g. Pine forest to human settlement.
- Increase of animal predators associated with human occupation.
- Weed infestation- garden escapee
- Bio-security - introduction of housing associated pests e.g. argentine ants, rainbow skinks



That species experience range reductions and extinctions as a result of human induced disturbance is an undisputed fact.

**NZ fairy tern are in a precarious state.
Precaution is warranted.**

What is offered to provide
Valuable Ecological Benefit
required to qualify for
SEP subdivision potential



CM Wild evidence
Paragraphs 63

The most substantial offer is the return of land to
public ownership in return for housing provisions-

1. A wider coastal strip of fore dune
2. 100 hectares of back dune and riparian margin

1. A wider coastal strip of fore dune

Benefits

- Reduction in exotic species as pine and macrocarpa protection wedge are removed.
- Weed control
- rabbit control over a larger area than now.

Disbenefits

- Removal is done with heavy machinery causing large impact.
- Strip is backed by houses and golf course over 2/3's of its length with their inherent disturbance factors.
- More people using the beach over longer periods.
- A lot less fore dune is being offered for protection than if SEP provisions were applied for.

Impact threatened species present

- +VE for Sand Tussock, Pingao, Katipo, Sand Coprosma **if** they survive the clearance and access points through dunes are adhered to.
- VE for Shore skink, Northern NZ Dotterel.

CM Wild evidence

Paragraphs 64

2. 100 hectares of back dune

There are very few ecological benefits to be had from the back dune land offered. Unless perhaps it was returned to its un-vegetated state. Large colonies of seabirds nested in the dunes before they were planted in pines. However erosion covenants on the land prohibit this because of sand accretion potential on farm land.

The potential for riparian vegetation enhancement on the stream lies mostly on the DoC marginal strip for reasons already discussed.

The idea of the 100 hectares acting as a corridor between the wetland and the shore is of limited value because of the species involved. Ie the shorebirds don't go inland and the riparian birds will follow the stream margins already there.

CM Wild evidence

Paragraphs 66

Te Arai Stream Mouth is the ecosystem zone that is providing the most important ecological contribution to the highest number of threatened species and those most critical.

The planting of vegetation or provision of land into public ownership in return for residential housing does not provide any valuable ecological benefit to the Te Arai Stream mouth zone.

CM Wild evidence

Paragraphs 69

On the contrary it increases the human induced pressures upon it.

Decline

We are concerned that the increase in human pressures that the proposed residential housing would bring to Te Arai's outstanding ecosystems, could be the tipping point, sending already struggling species into **irreversible decline** as it has done elsewhere.

Te Arai has outstanding natural and amenity values and potential risks should not be taken with its environment or its species in an attempt to sort out human grievances.

An alternative way needs to be found.



Sales history

Property details

Street address	Te Arai Point Road, Te Arai
Valuation reference	830/2101
Property ID (QPID)	2246403
Territorial authority	Auckland - Rodney (4)
Property name	MANGAWHAI MARGINAL STRIP
Owner/occupier	Not available
Outstanding activity	No
Nature of improvements	Dwelling Other Buildings
Category	Forestry-Exotic

Sales history

Vendor/Purchaser	Date of agreement	Date of settlement	Gross sale price
	27/04/2006	27/04/2006	\$21,832,000
	25/10/2004	25/11/2004	\$20,000,000
	18/11/2002	18/11/2002	\$5,320,000

