

Appendix 3.1

**TERRESTRIAL AREAS OF SIGNIFICANT
CONSERVATION VALUE**

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PR14

AREA NAME:	Otanga
NZMS 260 Y14:	665923; 615925
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.1

Area	184 ha
Alt. range	0-360 m
Tawa-puriri-mangeao forest	on hillslope
Tawa-puriri – (Kahikatea) forest	on hillslope
Mangeao-puriri-tawa forest	on hillslope
Puriri-pohutukawa forest	on colluvial hillslope
Kahikatea-rimu (puriri) forest	on colluvial hillslope
(Rimu) / tawa-pohutukawa-rimu forest	on colluvial hillslope
Pohutukawa forest	on sea cliff
(Pohutukawa)-Pittosporum Tenuifolium-ngaio- <i>Hebe parviflora</i> var. <i>arborea</i> – (mangeao) forest	on hillslope
Tawa-pohutukawa-puriri forest	on hillslope
(Mangeao) / manuka scrub	on hillslope
Pohutukawa treeland	on sea cliff
Manuka- <i>Cassinia</i> -kanuka shrubland	on hillslope, colluvial hillslope
<i>Cassinia</i> / introduced grasses shrubland	on hillslope
Glasswort – (sea celery) rockland	on rock platform

Two of the few remaining remnants are on the northern coast of the district. The larger area to the east has a high diversity of vegetation types while the smaller area is largely comprised of a mangeao-dominant community unique in the district. Mangeao has a local distribution in the district centered on the Matakaoa Range.

Podocarp associations close to the coast as found here, are rare elsewhere in the district. Manuka-*Cassinia*-Kanuka shrubland and scrub towards the margin of the natural area provides a good buffer.

Contains proposed local purpose recreation reserve (Transitional District [Waiapu County District Scheme] Plan).

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PR36

AREA NAME:	Waenga
NZMS 260 Y14:	641915
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.1

Area	320 ha
Alt. range	20-377 m

Kahikatea-tawa-matai rimu forest	on alluvial terrace
Tawa-puriri forest	on hillslope ridge
(Rimu)-tawa-puriri-broadleaved species forest	on hillslope
Tawa forest	on hillslope
(Rimu)-tawa-rewarewa/nikau-mahoe-ponga forest	on hillslope
<u>Pittosporum tenuifolium</u> -mamaku-five finger forest	on hillslope, ridge
Kanuka scrub	on hillslope
Manuka scrub	on hillslope
Raupo reedland	on alluvial flat

One of the largest of the few forested areas remaining on the Matakaoa Range. Tawa dominant forest with variable proportions of puriri and mangeao is interspersed with windthrow areas of broadleaved species forest. Included are remnants of podocarp forest on alluvial terrace and a small raupo swamp inhabited by fernbird.

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PR29

AREA NAME: Aunui
 NZMS 260 Y14: 700918
 STATUS: Recommended Area for Protection
 ECOLOGICAL DISTRICT: Pukeamaru
 MAP: 2A.1

Area	250 ha
Alt. range	0-510 m
Pohutukawa forest	on sea cliff
Tawa forest	on hillslope, ridge
Kamahi-Quintinia forest	on hillslope, ridge
Rewarewa/ <i>Pittosporum tenuifolium</i> forest	on hillslope
Broadleaved species-nikau- <i>Hebe parviflora</i> var <i>arborea</i> -mamaku scrub	on hillslope
Kanuka forest	on hillslope
Manuka scrub	on hillslope, ridge
Introduced grasses	on hillslope

The largest area of intact tawa and broadleaved species forest on the northern coastal slopes of the district. Tawa forest with mangeao (a typical associated on the Matakaoa Range), hinau and rewarewa comprises the largest part of the forest and scrub-covered catchment. Very few puriri are associated with tawa despite the coastal location. Near the high point (510m) on a coastal facing slope occur kamahi, Quintinia and *Pseudopanax edgerleyi*, an associated typical of the lower montane zone (above 600m).

High wildlife value assigned to an area due to the presence of the rare native frog *Leiopelma hochstetteri*.

Appendix 3.1

PR10

AREA NAME:	Hicks Bay Dunes
NZMS 260 Z14:	775886
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.2; 2A3; 2A.4

Area	125 ha
Alt. range	0-140 m

Five finger-mahoe-(kohekohe)-(tawa)- (pohutukawa)-(houpara) forest	on sea cliff
<i>Spinifex hirsutus</i> – (pingao) grass-sandfield	on foredune, sand plain
<i>Carex pumila</i> – (pingao) sedge-sandfield	on foredune, sand plain
<i>Juncus maritimus</i> rushland	on tidal flat
<i>Triglochin striatum</i> - <i>Scirpus cernuus</i> herbfield	on tidal flat
<i>Plagianthus divaricatus</i> - <i>Leptocarpus similis</i> - sedge-shrubland	on sand plain
<i>Scripus nodosus</i> - <i>Leptocarpus similis</i> - introduced grasses, grass-sedgeland	on sand plain
Sandfield	on sand plain
Manuka scrub	on hillslope
Lupin shrubland	on foredune, rear dune, in dune hollow

A high diversity of representative vegetation types is associated with the lagoon, Wharekahika River mouth, dune system and extensive sand plain. The largest colonies of pingao (rare) in the region are located at Hicks Bay amongst *Spinifex* on foredunes, and *Carex pumila* on sand plain.

Vegetation zonation patterns, associated with tide levels, are evident along the lagoon and at the Wharekahika River mouth with *J. maritimus* and *L. similis* above high tide level and *T. striatum* (abundant), *S. cernuus* and *J. maritimus* below mean high tide level. Raupo and *S. medianus* grow in clumps in the lagoon. Associations of *P. divaricatus*-*L. similis* and *S. nodosus*-*L. similis* occur on sand plains beyond the mean tidal influence.

The vulnerable *Carmichaelia williamsii* are rare *Brahcglottis perdicioides* are found on the adjacent sea cliff predominantly covered with broadleaved species.

Wildlife values are high with large numbers of estuarine birds including white heron (only periodically sighted).

Contains proposed local purpose scenic reserve (111) (Transitional District [Waiapu County District Scheme] Plan).

Appendix 3.1

PPO

AREA NAME:	Hicks Bay Conservation Area
STATUS:	Protected Natural Area (Conservation area)
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A3; 2A.4
Field Centre:	Gisborne
Local Authority:	Gisborne District Council
Sub Region:	Eastern Coast
Tangata Whenua:	Wharekahika; Te Whanau-a-Tuwhakairiora
Legal Description:	Sections 2 and 24, Block VIII, Matakaoa SD
General Description:	Duneland, wetland, pasture
Inventory Ref:	Z14001
File Ref:	LSG004
Area (ha):	20.9868
CMP:	No

Natural and Historic Values

Exotic grasses, rushland (*Juncus maritimus*), sedgeland, sandfield. Species of interest include pingao and *Carex pumila*. 'Exceptional' botanical value. Part of a highly diverse example of representative vegetation types (Beadel 1989). This consists of duneland (50% wetland, 50% grassland). It is part of a Category 1 Recommended Area for Protection (Regnier et al 1988).

Fauna includes New Zealand dotterel, bittern, banded dotterel.

There is potential for general coastal recreation at the site.

Threats to Natural and Historic Values

Pests include: domestic stock.

Other threats include low-moderate (seasonal) visitor pressure.

Management

Management needs:

- ▶ Pest Control (plant pest inventory); (stock exclusion).
- ▶ Fencing.
- ▶ Grazing licence.
- ▶ Resource inventory.
- ▶ Archaeological survey.

Appendix 3.1

PR20

AREA NAME: Waikohu
NZMS 260 Z14: 762888, 752882
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Pukeamaru
MAP: 2A3; 2A.4

Area	35 ha
Alt. range	40 - 120m
Black beech forest	on hillslope
Tawa-puriri-pohutukawa forest	on hillslope
Tawa-puriri-forest	on hillslope, marine terrace

Two small remnants of coastal forest are associated with the marine terrace. Pohutukawa and black beech occur together on the terrace flank; an association which is almost certainly unique to the district, (J Nicholls, pers. Comm.). The remnant of tawa-puriri forest is the only remaining forest on marine terraces occurring throughout the Whangaparaoa-Wharekahika land system.

Appendix 3.1

PR1

AREA NAME:	Te Koau
NZMS 260 Z14:	772850
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A3; 2A.5

Area	125 ha
Alt. range	0-673 m

Tawa-puriri forest	on hillslope, ridge
Puriri-tawa forest	on hillslope, ridge, marine terrace
Tawa forest	on hillslope
Tawa-kohekohe forest	on colluvial hillslope
Puriri-pohutukawa-tawa forest	on hillslope, knoll, sea cliff
Black beech forest	on ridge
Pohutukawa forest	on hillslope
Kohekohe-pohutukawa forest	on hillslope
Kamahi-tawari-tawa forest	on hillslope, ridge
(Pohutukawa)/kanuka scrub	on sea cliff
<i>Phormium cookianum</i> -manuka shrub-flaxland	on hillslope, sea cliff
<i>Rewarewa/five finger-Pittosporum tenuifolium</i> - cabbage tree forest	on hillslope
Broadleaved species scrub and forest	on hillslope
Rewarewa/manuka scrub	on marine terrace, hillslope, ridge
Five finger-cabbage tree-bracken shrubland	on marine terrace
Kanuka forest	on hillslope
Manuka and broadleaved species scrub	on hillslope
Manuka-bracken fern-shrubland	on hillslope, marine terrace
Reverting pasture grassland	on hillslope, marione terrace, ridge

Together, Te Koau natural area and Pukeamaru Scenic Reserve provide the only continuous altitudinal sequence from coastal and lowland to lower-montane and upper-montane vegetation types in the district.

The coastal associations are of particular importance as they do not occur in Pukeamaru Scenic Reserve. Tawa-puriri and puriri-pohutukawa-tawa forests in the natural area are the best representative examples in the district.

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In the latter type the rare *Brachyglottis perdicioides* is found in sea cliffs. *Olearia solandri* growing on the coast at Te Koau is the only sighting in the district. The endangered species, *Plantago picta* also occurs on sera cliffs here. Scattered stands of black beech, a distribution pattern typical of the district are most common here. In the adjacent Pukeamaru Scenic Reserve only a few isolated trees rather than stands of black beech, have been noted.

The broadleaved species forest and rewarewa/manuka scrub types here are the best examples in the district. *Pittosporum ralphii* found in rewarewa-five finger-*Pittosporum tenuifolium*-cabbage tree forest is at its northern limit (37° 35'), as specified by Druce (1972). The manuka scrub community is diverse and supports the only known population of *Schizaea bifida* in the district.

Early successional vegetation types (for example, rewarewa/manuka scrub, manuka scrub, and broadleaved species forest) provide a continuous vegetation cover between coastal and semi-coastal forests in the natural area and forests in Pukeamaru Scenic Reserve. The compact shape and size that this provides adds to the viability of the area.

Thick beds of limestone and associated caves occur near Haupara Pt with more extensive beds along the Nukutaharua Stream (Ongley and MacPherson, 1928). Species typically associated with limestone may be found in a more intensive survey.

Contains three proposed local purpose scenic reserves.

Appendix 3.1

PR6

AREA NAME:	Te Araroa
NZMS 260 Z14:	810840
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.5

Area	210 ha
Alt. range	0-10 m

<i>Triglochin striatum</i> – (<i>Limosella lineate</i>) herbfield	on tidal flat
<i>Spinifex hirsutus</i> – <i>Carex pumila</i> sedge-grassland	on foredune
(<i>Scirpus nodosus</i>) sand-gravelfield	on sand-gravel plain
Raupo reedland	in dune hollow
Raupo- <i>Phormium tenax</i> flax-reedland	in dune hollow
<i>Scirpus nodosus</i> sedgeland	on rear dune
Kanuka-manuka scrub	on rear dune
Manuka scrub	on rear dune, in dune hollow
Kahikatea/ <i>Cyperus ustulatus</i> tree-sedgeland	on alluvial terrace
Cabbage tree – <i>willow/juncus</i>	on alluvial terrace
Lupin scrub	on rear dune

The single dune system is a unique landform in this district comprising a series of parallel shingle dune ridges and hollows that represent old shorelines. The area includes a range of vegetation types that reflect drainage and salinity gradients. The freshwater wetlands in the poorly drained hollows support manuka scrub, *Phormium tenax* flaxland, raupo reedlands and a small area of kahikatea-*Cyperus ustulatus* tree-sedgeland. The well drained ridges have a cover of mainly manuka and lupin scrub.

The coastal wetlands comprise one of the few and most extensive salt meadows in the district. Coastal herbs include the threatened *Mazus pumilio*, and other uncommon species such as *Lilaeopsis* sp., *Myriophyllum propinquum* and *Ranunculus acaulis*.

Remnant kahikatea occur on a poorly drained alluvial terrace adjacent to the dune system. *Coprosma propinqua* and *Polygonum dicipiens*, both found in association with Kahikatea, are in the district.

Both freshwater and saline wetlands have high wildlife values, with the lagoon at the karakatuwhero River mouth supporting the highest number of wetland birds in the district.

Contains wildlife protection reserve (108) and proposed riverbank reserve (113) (Transitional District [Waiapu County District Scheme] Plan).

Appendix 3.1

PR2

AREA NAME: Kakanui
 NZMS 260 Z14: 970805
 STATUS: Recommended Area for Protection
 ECOLOGICAL DISTRICT: Pukeamaru
 MAP: 2A.5; 2A.6

Area	1735 ha
Alt. range	10-384 m
Puriri forest	on marine terrace
Tawa-puriri forest	on marine terrace
Tawa forest	on marine terrace, hillslope, colluvial hillslope
Rewarewa-tawa-puriri forest	on marine terrace, hillslope
Black beech forest	on ridge
Hard beech forest	on marine terrace, gully, hillslope, ridge
Hard beech-kamahi forest	on hillslope, ridge
Pohutukawa/kawakawa-tutu - <i>Phormium cookianum</i> -bracken shrubland	on hillslope, sea cliff
<i>Pittosporum tenuifolium</i> -(<i>P. ralphii</i>)-tutu-supplejack -mahoe forest	on hillslope
Kanuka-rewarewa forest	on marine terrace
(Rewarewa)/kanuka	on hillslope
Kanuka-pohutukawa-manaku forest	on hillslope, ridge
Kanuka-five finger-mamaku forest	on hillslope
Tawa-kanuka-mamaku-five finger forest	on hillslope
Five finger- <i>Pittosporum ralphii</i> -mamaku scrub	on hillslope
Kamahi forest	on ridge
Broadleaved species-hard beech-(kamahi) forest	on hillslope, ridge
Kanuka forest	on marine terrace, hillslope, colluvial hillslope, alluvial terrace
Kanuka-broadleaved species forest	on hillslope, ridge
Kanuka scrub	on hillslope
Kanuka-manuka scrub	on marine terrace
Manuka scrub	on marine terrace
Bracken- <i>Phormium cookianum</i> -manuka shrubland	on marine terrace, hillslope

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Kanuka- <i>Phormium cookianum</i> shrubland	on hillslope
<i>Phormium cookianum</i> flaxland	on marine sea cliff
Swamp millet-raupo-baumea sedge-reed-grassland	in basin

Kakanui natural area includes the most extensive marine terrace system in the district, with some unique, and some of the best examples of landform-vegetation associations.

Unique in the district are the two vegetation types, one a relatively large, monodominant stand of puriri forest, and the other hard beech forest associated with the marine terrace. Also occurring here are some of the better examples in the district of tawa-puriri, tawa, and rewarewa-tawa-puriri forests on terraces, and broadleaved species forest on hillslopes. Occasional black beech occur on ridges and an earlier survey recorded the nationally unique (J Nicholls, pers. Comm.) association of black beech and pohutukawa. Another example of this association was found on the present survey at Waikohu.

Ecological patterns include a vegetation sequence from coastal shrubland, scrub and forest to lowland forest, and successional patterns resulting from slipping on unstable sandstone and from burning. Two plants of the endangered kaka beak, at two different sites, were found in seral vegetation. It is likely that others exist as it was very common in this locality in the early 1900's (R McConnell, pres.comm.). *Pittosporum ralphii* is common in seral forest and scrub here but has a limited distribution elsewhere in the district.

Scattered plants of the wood rose (vulnerable) were found on the present survey on hillslopes associated with the marine terraces. These are the remnants of what was probably once a much larger population depleted by pig rooting and wood-rose collecting. The remnant population is one of few occurring outside the volcanic plateau area and is the only one known in the East Cape Ecological Region.

Adjacent to one of the terraces is a springfed wetland occupying a small basin in which grow a number of species, *Sparganium subglobosum*, *Spilobium pallidiflorum*, and *Drosera binata*, that are uncommon elsewhere in the district. *Epilobium chionanthum*, *E. billardieranum*, *Carex fascicularis* and *Hydrocotyle pterocarpa*, also found in the wetland, are new records for the district.

Waipuhake Stream, flowing through the natural area, is the only known locality of red-finned bully in the district (NZ Fisheries Research Division, unpublished).

Contains local purpose scenic and historic reserve (37) (Transitional District [Waiapu County District] Plan).

Appendix 3.1

PR35

AREA NAME: Taikawakawa
NZMS 260 Z14: 927793
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Pukeamaru
MAP: 2A.6

Area 400 ha
Alt. range 60-309 m

Tawa forest on hillslope, ridge
Tawa-(puriri) forest on hillslope, colluvial hillslope
Hard beech forest on ridge
Broadleaved species forest on hillslope

One of the better remnants of forest in this part of the district with a vegetation pattern probably typical of the original cover of the now extensively cleared East Cape Land System. A reasonable sized area of tawa and tawa-(puriri) forests in excellent condition with scattered small stands of hard beech forest. Tawa forest on ridges has associate species such as *Quintinia*, *Dracophyllum latifolium* and heketara that are commonly found in hard beech forests.

Appendix 3.1

PR19

AREA NAME:	Hautai
NZMS 260 Z14:	955788
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.6; 2A.7

Area	225 ha
Alt. range	0-40 m

<i>Spinifex hirsutus</i> grassland	on foredune
<i>Scirpus nodosus</i> - <i>Cyperus ustulatus</i> sedgeland	on sand plain
(<i>Carex pumilla</i> – <i>Limosella lineate</i>) sandfield	on sand plain
Kanuka forest	on sand dune
Pohutukawa/lupin scrub	on sand dune
Lupin scrub	on sand dune, sand plain
Sandfield	on sand dune, sand plain

The Hautai area comprises a lupin dominant dune system with an extensive shifting sand plain that is unique in the district. *Austrofestuca littoralis*, a species with a local distribution national, is scattered along the base of the *Spinifex hirsutus*-covered foredune. *Mazus pumilio* (vulnerable, found in only two other localities in the district) occurs throughout pasture turf on poorly-drained depressions of the sand plain. Kanuka forest on sand dunes with an understorey of ongaonga is unique in the district.

The area is also of archaeological interest.

Appendix 3.1

PR16

AREA NAME:	Rangiata
NZMS 260 Y14:	986763
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.7

Area	20 ha
Alt. range	20-140 m

Kohekohe-puriri-tawa-tawapou forest	on hillslope
Tawa-puriri-pohutukawa forest	on colluvial hillslope, gully
Kanuka-manuka scrub	on hillslope, ridge

The only example in the district of tawapou (other than a few plants found at Lighthouse Reserve nearby, NA 17). It is likely to be the most viable southern population as only a few trees occur at the southern limit near Tolaga Bay.

The canopy of the puriri-tawa-kohekohe-tawapou forest is in good condition although the understorey and ground cover are severely grazed. A single parapara (*Pisonia brunoniana*, the bird-catching plant) was known from this area until about five years ago when it was blown over in a storm. It was one of the last naturally occurring examples on the mainland, the only other being a recent unconfirmed sighting in Rodney County.

Appendix 3.1

PR17

AREA NAME:	Lighthouse Reserve
NZMS 260 Z14:	992753, 978732
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.7

Area	70 ha
Alt. range	0-144 m

Puriri-tawa forest	on colluvial hillslope
Kanuka- <i>Pittosporum tenuifolium</i> forest	on hillslope
<i>Phormium cookanum</i> - <i>Pittosporum tenuifolium</i> - manuka shrub-flaxland	on hillslope, ridge
Kanuka scrub	on hillslope
Kanuka-manuka- <i>Cassinia</i> scrub	on hillslope
<i>(Coprosma repens)</i> - <i>(sea celery)</i> - <i>(Poa anceps</i> var <i>condensate)</i> - <i>(Plantago picta)</i> rockland	on sea cliff

The major feature of the Lighthouse Reserve is the sea cliff (height range 5-100m) with a sparse vegetation cover including the endangered species *Plantago picta*. It is the best example of this landform-vegetation association on the mainland in the district. The association also occurs offshore on Whangaokeno (NZ 5).

Regenerating forest, scrub, flatland and a small patch of mature tawa-puriri forest (containing some tawapou) on hillslope behind the highest sea cliff, all in excellent condition, adds to the diversity of the natural area.

Appendix 3.1

PR5

AREA NAME: Whangaokeno
 NZMS 260 Z14: 017750
 STATUS: Recommended Area for Protection
 Protected Area (Wildlife Refuge Reserve)
 ECOLOGICAL DISTRICT: Pukeamaru
 MAP: 2A.7

Area 25 ha
 Alt. range 0-129 m

Introduced grasses (*Festuca arundinacea*-dominant)
 grassland on hillslope
 ((*Plantago picta*)) rockland (from BD Clarkson, 1984) on sea cliff

Whangaokeno is the largest island in the district has high botanical and wildlife values. The "Wildlife Refuge" designation however does not provide adequate protection (Kelly, 1980).

Wildlife values are very high due to the presence of breeding colonies of fluttering shearwater, grey-faced petrel, sooty shearwater and probably black-winged petrel. White-faced storm petrel and little blue penguin are also present. Kiore is established here and has caused the extinction of the green form of tuatara known only from Whangaokeno (Moors, 1980).

The endangered species *Plantago picta* is scattered on sea cliffs. Other notable species are *Sonchus kirkii*, *Senecio banksii* and a prostrate form of *Hebe stricta* var. *macroura* (BD Clarkson, pers. Comm.).

Of historical interest is the old lighthouse site and artefacts that remain since its abandonment in 1922.

East Island (Wildlife Refuge Reserve).

Appendix 3.1

Field Centre:	Gisborne
Local Authority:	Gisborne DC
Sub Region:	Eastern Coast
Tangata Whenua:	Te Whanau-a-Hunaara
Legal Description:	Whangaokino Maori Block, Block XVI, East Cape SD
General Description:	Historic, Wildlife Reguge, Coastal Vegetation, Rockland
Inventory Ref:	Z14008
File Ref:	ISL003
Area (ha):	8.0937
CMP:	No

Natural and Historic Values

The reserve has a mixture of coastal herb and shrubfield, exotic grassland and rockland. There are four species of botanical significance including: *Sonchus kirkii*, *Senecio banksii*, a prostrate form of *Hebe stricta*, var. *macroura* and the endangered *Plantago spathulata*, var. *picta*. 'Exceptional' botanical conservation value (Beadel 1989). The reserve has been designated a category 1 RAP (Regnier et al 1988).

Fauna include: Sea birds such as black wing petrel, fluttering sooty shearwater, blue penguins. 'Moderate' SSWI ranking (Rasch 1989).

The island is the site of an historic lighthouse and there are at least 17 recorded shipwrecks in the vicinity.

The island is not available for recreational use.

Threats to Natural and Historic Values

Pests include Norway rat, boxthorn.

Management

Management needs:

- ▶ Pest control.
- ▶ Interpretation.
- ▶ Rehabilitation planting.
- ▶ Archaeological/historic survey.
- ▶ Reclassification (possible historic or marine reserve).

Appendix 3.1

WR6

AREA NAME:	Port Awanui
NZMS 260 Z15:	895615
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.8; 2A.9

Area	16 ha
Percent primary	87%
Alt. range	0-160 m
Bioclimatic zone	coastal

This RAP is situated in the northeast of the Ecological District as Port Awanui. It consists of three separate, small remnants of pohutukawa treeland growing on steep, eroding hillsides running down onto the beach. Of these, the northern two are the most extensive and least modified. Although the canopy trees are for the most part in good health, all three stands are very open and weeds, in particular pampas and gorse, have the potential to cause problems. Other species present include *Pinus radiata*, ngaio, cabbage tree, manuka, kanuka, tauhinu, wharariki and taupata.

Although the RAP is small, fragmented, and in poor condition, the ranking given reflects the value of the pohutukawa stands it contains. Few healthy stands of this species remain in the Ecological District, and only one of these at Waimahuru Bay is more extensive. Given that the future of pohutukawa now seems largely dependent on active management, this stand would seem to have high potential for restoration, which would require control of domestic stock, feral goats and possums, removal of weeds, and perhaps supplementary planting of young pohutukawa and associated coastal species.

Appendix 3.1

WR8

AREA NAME:	Kuratau
NZMS 260 Z15:	875593
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Pukeamaru
MAP:	2A.9

Area	49 ha
Percent primary	33%
Alt. range	0-300 m
Bioclimatic zone	coastal

Situated northeast of Ruatoria and adjacent to the Kuratau Conservation Area, this RAP contains both steep hillslopes facing eastwards to the coast and gentler hillslopes facing inland and to the southwest. It contains a mix of primary forest and secondary forest and scrub, the primary forest dominated by kohekohe, puriri and tawa with pohutukawa and karaka on the coastal faces, and the secondary scrub and forest dominated by kanuak, except on more eroded coastal sites, where manuka and tauhinu are dominant. Both introduced weeds and soil erosion would present a problem to future reserve management.

The significance of this RAP reflects the value not only of the coastal and semi-coastal primary forest it contains, including the small stands of pohutukawa, but also the variety of primary and secondary successional communities dominated by either kanuka or manuka, with the latter unusual in the context of the Ecological District. It would strongly complement the values of the adjacent Conservation Area, which contains only small enclaves of primary forest and is dominated by a large eroding gully.

Appendix 3.1

WP2

AREA NAME:	Ahikouka/Kuratau Conservation Area
STATUS:	Protected Natural Area (Land Conservation Area)
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.9

Ahikouka Land Conservation Area

Field Centre:	Gisborne
Local Authority:	Gisborne DC
Sub Region:	Eastern Coast
Tangata Whenua:	Ngati Porou (Runanga)
Legal Description:	Section 3 Block X, Waiapu SD, Part Ahikouka 2A Block
General Description:	Coastal forest
Inventory Ref:	Z15003
File Ref:	8/124
Area (ha):	14.5560
CMP:	No

Natural and Historic Values

Coastal forest. Details of natural, historic and recreational values unknown.

Threats to Natural and Historic Values

Unknown.

Management

Management needs:

- ▶ Archaeological survey.
- ▶ Botanical and faunal survey.

(2) Kuratau Conservation Area (=63ha) is located on the coast northeast of Ruatoria. It contains both a small remnant of coastal forest dominated by tawa, kohekohe, and puriri, and areas of secondary vegetation dominated by kanuka on more intact soils, and by manuka, tauhinu, and toetoe on eroded sites with more skeletal soils. One small patch of pohutukawa grows at the eastern or coastal end of the Conservation Area. Much of the reserve has been badly affected by erosion, and this, together with browsing by feral goats and domestic stock, has allowed invasion by numerous weeds including gorse, sweet briar, privet and blackberry.

Appendix 3.1

WR16

AREA NAME:	Mataahu
NZMS 260 Z15:	804445
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.11

Area	376 ha
Percent primary	nil
Alt. range	20-335 m
Bioclimatic zone	coastal to semi-coastal

Although lying between RAP 15 and the coast, this RAP differs markedly in the character of its landforms, consisting of an elevated plateau surrounded by steep, often precipitous slopes. This steeper relief reflects the base geology of Tokomaru sandstone, which has much higher mass strength than the surrounding Whangai Formation argillite/mudstones, and is therefore much less easily eroded. As such it is somewhat atypical of the Waipiro subdistrict, and is ecologically more akin to landforms of the Tokomaru subdistrict. The vegetation cover is predominantly secondary scrub and forest in which kanuka is dominant. However, advanced regeneration of forest species such as rewarewa and tree ferns, along with scattered wildling pines, occurs over quite large areas, particularly on less accessible parts of the main plateau and in sheltered gullies. Other important floristic elements include a number of large pohutukawa on some of the high cliffs, and areas of tauhinu-manuka scrub on eroded, steep coastal slopes in the southeast. Two small wetlands occur on the plateau (Photo 5), and these are dominated by raupo, *baumea*, *Eleocharis*, and/or *sphagnum*.

The high significance accorded to this RAP reflects its extensive areas of advanced secondary vegetation on a wide range of aspects and landforms, the high conservation value of its wetlands, which, with the exception of those on similar sites in the Waipare and Nuhiti Scenic Reserves, are less modified than any others seen in the Ecological district, and the presence of pohutukawa. The RAP also contains the site of a major historic Maori settlement, and has very high significance for local Maori.

Appendix 3.1

WP5

AREA NAME:	Waimahuru Bay Scenic Reserve
STATUS:	Protected Natural Area (Scenic Reserve)
ECOLOGICAL DISTRICT:	Waipapu
MAP:	2A.12, 2A.13

Waimahuru Bay Scenic Reserve

Field Centre:	Gisborne
Local Authority:	Gisborne DC
Sub Region:	Eastern Coast
Tangata Whenua:	Whanau-a-Ruatauparea; Iritekura
Legal Description:	Lot 1 DP 8481 and Section 2, Block VIII, Waipiro SC
General Description:	Coastal Forest, Landscape
Inventory Ref:	Z16006
File Ref:	CCL003
Area (ha):	264.6751
CMP:	No

Natural and Historic Values

It consists of a small conservation area located in the north of this subdistrict, augmented by an area recently purchased by the Department of Conservation. It contains an area of predominantly secondary coastal vegetation on steep coastal hill slopes, with kanuka the most widespread and dominant tree species. Growing in association with the kanuka are rewarewa and five finger in the canopy and *Helichrysum aggregatum*, raukumara, and/or prickly mingimingi in the understorey. Remnants of primary forest survive in gullies, generally containing tawa, kohekohe, rewarewa, tree ferns, and occasional large puriri. An extensive area of pohutukawa treeland occurs on the steep slopes along the coastal fringe.

Southernmost extent of significant pohutukawa on the eastern side of the North Island. Kohekohe, kowhai, raukumara (*Brachyglottis perdicioides*; 80% of its total population). 'Very High' botanical conservation value (Beadel 1989).

Fauna include nesting seabirds and representative intertidal and subtidal marine animals (offshore).

There are general marine recreational opportunities in the reserve, such as diving. The area also has rare potential as a marine reserve, associated with one of the best examples of remnant coastal forest between Cape Paliser and East Island. The area is significant to Ngati Hineiti.

Threats to Natural and Historic Values

Pests include: possums, goats, pigs, cats, domestic stock, wilding pines, cannabis broom. Other threats include adjacent forestry activities.

Management

Management Needs: Fencing inventory; possum and goat control (high priority); plant pest control (wilding pine removal); name change; archaeological survey; rare plant (Raukumara daisy); monitoring; marine reserve.

Appendix 3.1

WR19

AREA NAME:	Tauhiti
NZMS 260 Z15:	785 325
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.13

Total Area:	1741 ha
Percent primary:	3%
Alt. range:	0-520 m
Bioclimatic zone:	coastal to lowland

Situated on the coast at the northern end of Tokomaru Bay, this large RAP occupies an extensive area of relatively high altitude and steep relief on a large block of Tokomaru Sandstone (cf. RAPs 16, 23, 25, 26), immediately south of the Waimahuru Bay Scenic Reserve. The central and western parts are drained by streams running generally north-south, and draining either into Tokomaru Bay or Waipiro Bay. Slopes are particularly steep in the east where faces drop off to the sea, and in the south towards Tokomaru Bay.

The bulk of the area is occupied by secondary forest dominated by kanuka, which varies widely in age and in the amount of regeneration of forest species. Highly modified remnants of the original forest, mainly tawa, kohekohe, and puriri, survive mostly on sites protected from fires such as in the middle sections of some of the more deeply incised streams. A few black beech trees have also survived on one or two sites in the centre of the RAP. Older secondary stands, often with good regeneration of forest species, predominate on the main plateau, but are less widespread on the steep south-facing slopes behind Tokomaru Bay where young stands with small enclaves of pasture predominate. Small groups of *Pinus radiata* are scattered throughout, mainly on upper slopes and ridgecrests.

The eastern coastal faces are covered generally with secondary scrub and forest on the upper slopes, but vegetation on the lower slopes is generally more open, with large pohutukawa scattered through a mixture of shrubland, exotic pasture species, and active erosion surfaces. Manuka is locally dominant on eroded and/or more recently burnt areas, particularly on the coastal faces in the east.

The significance of this RAP stems largely from the quality of its secondary vegetation, which is extensive, contains good regeneration of primary forest species, and occurs over a wide range of altitudes and topographic units. Just as important, sufficient seed sources of tall forest species occur over most of the area to allow ongoing succession to tall broadleaved forest. The area also has highly scenic qualities, providing an impressive backdrop to Tokomaru Bay.

Appendix 3.1

WP7

AREA NAME:	Waipare and Nuhiti Q Scenic Reserve
STATUS:	Protected Natural Area (Scenic Reserve)
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.14; sA15

(7) Waipare and Nuhiti Scenic Reserves (= 2137ha combined) occupy the high plateau and its steep flanks to the north-west of the Anaura Bay Reserve. They consist of secondary forest and scrub, with small primary forest remnants dominated by species such as kohekohe, tawa, pukatea, and nikau remaining in some of the deeper gullies. Kanuka, rewarewa, and kamahi are dominant over large areas, but black beech is locally dominant on dry ridges. Important features include cliff sites on which kowhai ngutukaka has been found, relatively unmodified wetlands on the plateau top, and the presence of a wide range of fauna including brown kiwi. Cliff sites are dominated by wharariki, karamu, *Gahnia pauciflora*, and kowhai. The wetlands are dominated by manuka, harekeke, toetoe, raupo, *Hebe stricta*, and species of *Carex*, *Baumea*, and *Eleocharis*.

Waipare Scenic Reserve

Field Centre:	Gisborne	Inventory Ref:	Z16014
Local Authority:	Gisborne DC	File Ref:	RSN037
Sub Region:	Tairāwhiti	Area (ha):	996.6370
Tangata Whenua:	Ngāti Whakara	CMP:	No
Legal Description:	Tokomaru L and M blocks and Section 1, Blocks XI, XII, XV and XVI Tokomaru SD		
General Description:	Wetland, shrubland		

Natural and Historic Values

Shrubland composed of kanuka/manuka with mingimingi, olearia, ti ngahere and tauhinu. There is a wetland on the Waipare Plateau with raupo, harakeke, toetoe, manuka and kiokio. The area is the only intact wetland surrounded by an indigenous forest catchment in the Waiapu Ecological District. The reserve contains the endangered plant kowhai ngutukaka (*Cliathus punicius*, otherwise known as 'kaka beak') (Beadel 1988).

Fauna include bush birds such as weka, kereru, pied tit and whitehead, with falcon and possible kiwi. It is possible the 'giant gecko' (kawakawau) is also present in the reserve.

There is a recorded historic pit size (Z16/159), and other possible unrecorded sites. The area is culturally significant to Ngāti Whakara. Recreational opportunities include hunting.

Threats to Natural and Historic Values

Pests include: goats, possums, cats, Mustelids, domestic stock, wilding pine, thistles.

Appendix 3.1

Management

Management needs: fencing complete (NE boundary); possum and goat control (high priority); wilding pine control; access; adjacent land acquisition; archaeological survey; recreational development.

Nuhiti Q Scenic Reserve

Field Centre:	Gisborne	Inventory Ref:	Z16017
Local Authority:	Gisborne DC	File Ref:	RSN037
Sub Region:	Tairāwhiti	Area (ha):	1140.00
Tangata Whenua:	Ngāti Whakara	CMP:	Yes
Legal Description:	Lot 1, DP 7090, Blocks XI and XII, Tokomaru SC		
General Description:	Secondary lowland forest		

Natural and Historic Values

Secondary lowland forest (with a history of clearance for farming activities) including kanuka-rewarewa-kamahi forest, manuka shrubland and tawa forest. Fauna include bush birds (weka, kereru, pied tit, whitehead) falcon and possible kiwi. It is also possible that the 'giant gecko' (kawakaweau) is present in the reserve.

There is one recorded pa site with associated terraces (Z16/199) in the reserve.

The reserve has few recreational opportunities although recreational hunting is encouraged.

Threats to natural and Historic Values

Pests include: Goats, possums, domestic stock, cats, mustelids, wilding pines.

Other threats include fire.

Management

Management needs: fencing, possum and goat control (high priority), wilding pine control, archaeological survey (Historic Places Register).

Appendix 3.1

WR22

AREA NAME: Mauhai Point
NZMS 260 Z15: 795222
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.14

Total Area: 1 ha
Percent primary: 100%
Alt. range: 60-100 m
Bioclimatic zone: coastal

This RAP consists of a small and isolated stand of pohutukawa forest situated on a coastal hilltop and adjacent steep, eroding facs on Mawhai Point, at the southern end of Tokomaru Bay. Although not visited on the ground, it was identified during an aerial inspection of coastal sites, and was estimated to contain 30 or more large canopy trees in relatively good health.

The signkificance of this RAP stems from the health pohutukawa forest contains, a community now rare in the Ecological district. The only other substantial stands are located at Port Awanui (RAP 6), in the Waimahuru Bay Scenic Reserve, and on the coastal parts of Tawhiti (RAP 19). The area is currently unfenced and subject to grazing by domestic stock.

Appendix 3.1

WP6

AREA NAME:	Anaura Bay Scenic Reserve
STATUS:	Protected Natural Area (Scenic Reserve)
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.15

Six (6) Anaura Bay Scenic Reserve (225ha) extends from the coast at Anaura Bay 2km inland on the northern side of the Anaura Stream. Approximately one-third of this area supports diverse primary mixed broadleaved forest on gently sloping terrain, dominated by tawa and puriri, kohekohe and some kowhai, rewarewa, titoki, cabbage tree, kahikatea and pohutukawa.

The remainder of the area is secondary forest, much of it on dry, exposed hill slopes, dominated by kanuka along with rangiora, bracken, rewarewa, lancewood, mahoe, kohuhu and tree ferns. Some large puriri, kohekohe, tawa and kahikatea occur in the gullies.

Field Centre:	Gisborne	Inventory Ref:	Z16015
Local Authority:	Gisborne DC	File Ref:	RSN030
Sub Region:	Eastern Coast	Area (ha):	225.3401
Tangata Whenua:	Ngati Whakara	CMP:	Yes
Legal Description:	Sections 11-13, 15 and 16, Block XVI Tokomaru SD.		
General Description:	Primary coastal to semi-coastal forest.		

Natural and Historic Values

Coastal to semi-coastal primary mixed broadleaved forest with tawa-kohekohe-puriri forest with pohutukawa. Species of particular importance are: raukumara (*Brachyglottis perdicioides*), a 'vulneralbe' plant; tawhai rauriki *Nothofagus solandri*, var. *solandri* or black beech; and tawapou *Planchonella costata*. 'Exceptional' botanical conservation value (Beadel 1989).

Fauna include: common bush birds and a possible 'giant gecko' (kawakaweau).

There are 16 recorded historic sites in the reserve, including: pits (Z16/12, Z16/13, Z16/47-50, Z16/53, Z16/54, Z16/56, Z16/117), midden/pits (Z16.10); pits/ditch (Z16/11); pits/terraces (Z16/16, Z16/57, Z16/113); pits/terraces/midden (Z16/59).

Recreational opportunities in the reserve include: walking, birdwatching and general sight-seeing. Recreational facilities include: The Anaura Bay Walkway (3.5km long, partly within Hikurangi Forest Farms private land); signage and stiles.

Threats to Natural and Historic Values

Pests include: goats, possums, domestic stock, cats, mustelids, thistles. There is a seasonal visitor pressure (high from December-January). Other threats include fire.

Management

Management Needs: fencing (stock exclusion; possum and goat control (high priority)); archaeological survey; assessmanagement of archaeological sites; grazing; facilities (signs and styles).

Appendix 3.1

WR24

AREA NAME: Anaura Bush
NZMS 260 Z15: 744150
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.15

Total Area: 33 ha
Percent primary: 77%
Alt. range: 20-200 m
Bioclimatic zone: coastal

This RAP lies in a gently sloping basin of southerly aspect on the coast approximately 1km south of the Anaura Bay Scenic Reserve. The majority of the area is covered in primary forest in which tawa, puriri, and kohekohe are dominant with pukatea, hinau, lacebark, rewarewa, cabbage tree, lancewood and karaka are also present. The balance is secondary kanuka forest which also contains scattered puriri, putaputaweta and kowhai with *Coprosma rhamnoides* dominant in the understorey. A number of introduced silk tree occur along one margin, and may cause problems if they spread into the secondary stands.

Although the semi-coastal forest of this RAP is similar in composition to that found in the nearby Anaura Bay Scenic Reserve, protection has been recommended because of the comparatively small amount of primary forest left in this subdistrict.

Appendix 3.1

WR32

AREA NAME: Motuora Island
NZMS 260 Z15: 770145
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.15

Total Area: 17 ha
Percent primary: Nil
Alt. range: 0-107 m
Bioclimatic zone: coastal

This island, which lies 700m of the beach at Anaura Bay, supports a mosaic of secondary vegetation the composition of which is strongly influenced by aspect. On the northern side eroding, bare rockfaces predominate, but small pockets of scrub and low forest contain *Pittosporum ralphii*, kakamu, titoki, mapou, mahoe and cabbage tree. In contrast, the southern face and western end are mainly vegetated and support low coastal forest dominated by titoki, whau, mahoe, kohekohe, mapou and *Pittosporum ralphii*, karaka occur on the lower spurs. A wide range of introduced plant species are also present.

The significance of the RAP stems mainly from its distinctive island character, its archaeological sites, and the presence of breeding populations of seabirds, including probably grey-faced petrels. It has an SSWI (Site of Special Wildlife Interest) ranking of 'moderate'.

Appendix 3.1

WR34

AREA NAME: Raponga Stream
NZMS 260 Z15: 753111
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.16

Total Area: 5 ha
Percent primary: Nil
Alt. range: 40 m
Bioclimatic zone: coastal

This RAP, very similar in character to RAP 10, is located near the coast above Marau Beach between Tolaga Bay and Anaura Bay. It contains a small, elongated area of wetland vegetation which occupies a very gently sloping site in the head of the Raponga Stream, a catchment draining away from the coast towards the west. The vegetation consists predominantly of raupo reedland in wetter areas, with *Cyperus ustulatus* and *Carex geminate* more abundant towards the better drained margins. Cabbage trees are scattered throughout.

Although modification by stock threatens the ecological integrity of the site, it remains significant given the relative paucity of wetlands in the Ecological District.

Appendix 3.1

WR35

AREA NAME: Kaiaua Bush
NZMS 260 Z15: 760104
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.16

Total Area: 62 ha
Percent primary: 100%
Alt. range: 20-180 m
Bioclimatic zone: coastal

This RAP is located in a gently sloping, southward facing basin on the coast at the northern end of Kaiaua Bay. It contains a fine example of primary mixed coastal forest, which occupies a full sequence of landforms from ridges, through gentle sideslopes to alluvial valley floor. The canopy is dominated by tawa, puriri and kohekohe, with rewarewa, northern rata, kahikatea, titoki, hinau, lace back and ngaio also common. Smaller areas of scrub to the east contain woolly nightshade and gorse, and these may cause problems if there is any disturbance to the canopy.

This RAP has been ranked highly given that it contains the best example of primary semi-coastal forest on hillslopes left in the subdistrict, and arguably one of the best examples of such forest in the entire Ecological District. It has an SSWI (Site of Special Wildlife Interest) ranking of 'moderate' with common bush and field birds including kereru recorded. Grazing of domestic stock is causing ongoing modification of the understorey, but given the fertility of the site and the warm climate, good recovery could be expected if the block were fenced. Remains of the old coastal road which runs through the RAP are still visible, including some of the original culverts constructed from puriri.

WP12

AREA NAME: Tatarahaki Cliffs
STATUS: Protected Natural Area (Open Space Covenant)
ECOLOGICAL DISTRICT: Waiapu

Tatarahake Cliffs (12). These are located along the northern perimeter of Tolaga Bay stretching from Te Karaka Point in the northeast almost to State Highway 35 in the southwest, and are covered with scattered scrub and low forest interspersed with erosion scars.

Appendix 3.1

WR36

AREA NAME:	Tolaga Bay Estuary
NZMS 260 Z15:	740997
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.17

Total Area:	48 ha
Percent primary:	Nil
Alt. range:	0 m
Bioclimatic zone:	coastal

Located immediately southeast of Tolaga Bay township, this RAP consists of an estuary formed where a southern tributary of the Uawa River has been enclosed by a sand dune spit. At the southern end of the estuary and along its western margins, oioi-*Isolepis* sedgeland occurs on the lowest lying areas, while saltmarsh species such as marsh ribbonwood and *Muehlenbeckia complexa* dominate the margins (Photo 6). Vegetation on the sandspit has been subject to severe modification. Recently burnt areas are covered by Spinifex and marram, but elsewhere these species have been overtopped by a range of woody weeds including boxthorn, gorse and blackberry and planted *Pinus radiata*. Behind the camping ground there are small areas of *Spartina* and mangrove, both of which have been planted, and a number of individuals of *Olearia solandri*, a shrub with a very localised region distribution.

The RAP has a high significance, containing the only sizeable estuary in the entire Ecological District. As such it contains a number of plant species which in the Ecological District are almost entirely restricted to this site. It has an SSWI (Site of Special Wildlife Interest) ranking of 'moderate-high', with a diverse range of wader and field species including banded dotterel and reef heron recorded. The western margins of the estuary have been heavily modified by cattle grazing and rubbish dumping, and some protection/amelioration would greatly benefit the area.

Appendix 3.1

WR37

AREA NAME:	Pourewa Island
NZMS 260 Z15:	767995
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.17

Total Area:	39 ha
Percent primary:	Nil
Alt. range:	0-100 m
Bioclimatic zone:	coastal

Pourewa Island lies at the entrance to Tolaga Bay immediately adjacent to Cook's Cove, and is separated from the mainland by only a small channel, shallow enough to be waded at low tide. Although the western faces of the island are only moderately steep, the northern, eastern and southern slopes are mostly precipitous and unvegetated, reflecting their much greater degree of exposure to erosion by wave action. The vegetation is highly variable, reflecting its periodic disturbance as a result of prolonged human use. Rank pasture has been gradually invaded by woody species, so that scrub and low forest now predominate over approximately half the island, and particularly on steep sites. It consists of varying proportions of manuka, karo, bush wattle, kawakawa, wharariki and tutu. Bracken and exotic pasture species are dominant on the balance of the vegetated area, generally on sites of moderate slope. One small area with poor drainage is dominated by raupo.

In common with Motuoro Island (RAP 32), this RAP has high conservation value given its distinctive island character, breeding populations of several common seabirds, and very high archaeological and historical values. However, it lacks the diversity of vegetation and the breeding populations of burrowing seabirds of the former. It has an SSWI (Site of Special Wildlife Interest) ranking of 'moderate-high'.

Appendix 3.1

WR38

AREA NAME: Hauiti Coastal Karaka Forest
NZMS 260 Z15: 758968
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.18

Total Area: 4 ha
Percent primary: 100%
Alt. range: 85-220 m
Bioclimatic zone: coastal

This small RAP is located on a very steep face surrounded by unstable coastal cliffs, approximately 3km south of Cook's Cove. Although small, it has been given a high ranking because it contains the only reasonable extensive example of coastal karaka-dominant forest remaining in the Ecological District. Other species present include kohekohe, mahoe and puriri. Lancewood, kowhai, kohuhu and *Pittosporum ralphii* are common around the margins and tauhinu and exotic grasses are dominant on vegetated parts of the adjacent unstable faces. Removal of feral goats would greatly enhance the viability of the area.

WR49

AREA NAME: Waihau Road Wetland
NZMS 260 Z15: 710910
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.18; S2.19

Total Area: 8 ha
Percent primary: Nil
Alt. range: 80 m
Bioclimatic zone: coastal

This wetland RAP is situated in a very gently sloping valley bottom, just to the south of RAP 48 (see also Nos 47, 48 and 50). The vegetation is dominated by raupo, manuka and harakeke, but with a sedge and rush-lined margin. Blackberry, sweet briar and willows also occur around the margins. As already noted, comparatively few wetlands occur in the Ecological District and areas such as this are valuable despite their ongoing modification by grazing, particularly by cattle, which present a significant threat to the long term integrity of the site.

Appendix 3.1

WR55

AREA NAME:	Whangara Beach
NZMS 260 Z15:	658800
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.20

Total Area:	22 ha
Percent primary:	Nil
Alt. range:	0-5 m
Bioclimatic zone:	coastal

This RAP consists of a relatively narrow string of duneland stretching approximately 1km north along the coast from the settlement of Whangara. The vegetation over most of the area consists of Spinifex and/or marram, with occasional Isolepis nodosa, haretail, Indian doab, ratstail, catsear, Calystegia soldanella, Zoysia pauciflora, Coprosma acerosa and one patch of planted pingao. This is one of three coastal RAPs clustered together in this subdistrict (see also Nos 56 and 58), all of which are significant given the relative scarcity of dunelands in the Ecological district.

WR56

AREA NAME:	Waiomoko River Mouth
NZMS 260 Z15:	650788
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.20; 2A.21

Total Area:	16 ha
Percent primary:	Nil
Alt. range:	0-5 m
Bioclimatic zone:	coastal

This is one of a cluster of three RAPs situated on the coast in the east of this subdistrict (see also Nos 55 and 58) and consists of dunelands stretching southwards from the mouth of the Waiomoko River. It is probably the most valuable of these coastal RAPs. The vegetation is notable for the dominance by native grasses and sedges, including Spinifex, Zoysia, Deyeuxia, Isolepis and Austrofestuca, the latter a threatened species of very local distribution. Although introduced marram is also present, it is restricted to two relatively small areas. The area has an SSEI (Site of Special Wildlife Interest) ranking of 'moderate', with a range of waders and waterfowl recorded, including banded dotterel.

Appendix 3.1

WR57

AREA NAME: Whitiwhiti Stream Bush
NZMS 260 Z15: 628783
STATUS: Recommended Area for Protection
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.21

Total Area: 15 ha
Percent primary: 100%
Alt. range: 20-100 m
Bioclimatic zone: semi-coastal

This RAP consists of a small fragment of primary coastal hillslope forest growing on moderately steep hillslopes, approximately halfway between the Waiomoko and Pouawa river mouths. Kohekohe, puriri and tawa are dominant in the canopy, with rewarewa, kanuka, pukatea, titoki, matai, white maire, lacebark and ngaio also present. The RAP is unfenced and subject to grazing; as a consequence, the margins are becoming quite ragged.

Despite its small size and high degree of modification this RAP contains the most sizeable piece of coastal forest remaining in the southeast of the Ecological District. An adjacent small fragment to the west has been excluded as, given its small size, it is unlikely to form a viable unit for protection in the long term.

Appendix 3.1

WR58

AREA NAME:	Pouawa River Mouth
NZMS 260 Z15:	615755
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.21

Total Area:	13 ha
Percent primary:	Nil
Alt. range:	0-5 m
Bioclimatic zone:	Coastal

This is a third of a cluster of three RAPs situated on the coast in the east of this subdistrict (see also Nos 55 and 56), and consists of a small area of estuary and duneland centred on the mouth of the Pouawa River. A small area of ponded estuary along the northern margin is lined by *Juncus* and *Carex* species. Duneland on both sides of the river mouth is dominated by *Spinifex* and marram, along with *Usolepis nodosa*, *Carex pumila*, harakeke and a wide range of introduced species. A long established patch of pingao grows on the eastern side of the river mouth, and a small area of willow-dominated shrubland lies along the road margin in the north east. The area has a high significance both for its duneland and estuarine vegetation and for the feeding and breeding habitats it offers to coastal and wading birds.

WP20

AREA NAME:	Makorori Point Recreation Reserve
STATUS:	Protected natural Areas (Recreation Reserve)
ECOLOGICAL DISTRICT:	Waiapu
MAP:	2A.22

(20) Makorori Point Recreation Reserve (7ha) to the north contains a small area of modified coastal forest and secondary vegetation on a steep south east facing slope. Wharariki, tutu and tauhinu are dominant in open vegetation on steep eroded faces and cliffs at the eastern end. At the western end more intact vegetation is dominated by *Hebe stricta* var. *macroura*, kohekohe, ngaio and karaka with populations of raukumara and Hebe sp. Unnamed (*Hebe* sp. N of Eagle 1982). Given the presence of these latter two species, the suitability of its current designation as Recreation Reserve should perhaps be reviewed.

Appendix 3.1

WP19

AREA NAME: Okitu Bush Scenic Reserve
STATUS: Protected Natural Area (Scenic Reserve)
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.22

Field Centre: Gisborne **Inventory Ref:** Y18070
Local Authority: Gisborne DC **File Ref:** RSN027
Sub Region: Eastern Coast **Area (ha):** 3.2600
Tangata Whenua: Ngati Oneone **CMP:** No

Legal Description: LOT 4 DP 5796, Block IV, Turanganui SD

General Description: Coastal forest, Community involvement, scenic value

Okitu Scenic Reserve consists largely of planted coastal forest, supplanting a small area of natural puriri-kohekohe-karaka forest. Other species include mahoe, cabbage tree, five finger, totara, tanekaha, kohuhu, titoki and lacebark. Planted species include pohutukawa, with ngaio, karo, akeake, tarata, taupata, and a range of *Hebe* and *Pseudopanax* cultivars.

Natural and Historic Values

Mixed broadleaved forest, manuka scrub, native plantings. 'High' botanical conservation value. Pocket of vegetation in farmed and residential area. Fauna include: common bush birds.

Recreational opportunities include: picnicking, walking. There is also community planting associated with the reserve. Facilities include: tracks, signage, carpark, toilet and rubbish pit.

Threats to Natural and Historic Values

Pest include: willow and thistle. Other threats include: fire and domestic rubbish.

Management

Management needs: fencing; adjacent land use (sub-division); recreation opportunities.

Appendix 3.1

TP

AREA NAME: Wainui Beach Esplanade Reserve
STATUS: Protected Natural Area (Scenic Reserve)
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.22

Field Centre: Gisborne **Inventory Ref:** Y18073
Local Authority: Gisborne DC **File Ref:** 8/1022
Sub Region: Eastern Coast **Area (ha):** 1.3304
Tangata Whenua: Ngati Oneone **CMP:** No
Legal Description: DP 1307, Blk VIII, Turanganui SD
General Description: Coastal duneland, amenity and coastal value

Natural and Historic Values

Coastal duneland area comprising steep foredune face fronted by incipient dune and beach foreshore. The duneland has been extensively modified by insensitive human development. Duneland flora comprises a range of exotic and indigenous plants typical of suburban coastal settlements. Fauna is mostly exotic, with remnant indigenous species (blue penguin and others) negatively impacted by introduced pests. No known historic values however there are significant historic values in the vicinity.

Recreational opportunities include: walking, beach recreation. The dunelands provide for public access to and along the foreshore, and are an important amenity value.

Threats to natural and historic values

The integrity of the duneland is threatened by insensitive human developments; housing development to the crest of the dune, public and private accessways across the dunes, property protection works along the face of the dunes, insensitive recreational use of the dunelands, introduced plant and animal pests.

Management

Maintenance of the integrity of the dune system for its value as a natural protection against erosion and inundation by the sea (in accordance with the NZCPS policy 3.4.3), maintenance and enhancement of public access cross and along the dunelands but manage adverse effects (NZCPS policies 3.5.1 – 3). Enhancement and maintenance of the amenity values of the dunelands.

Appendix 3.1

TR2

AREA NAME:	Tuaheni Point
NZMS 260 Z15:	507650
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Turanga
MAP:	2A.22; 2A.23

Total Area:	34 ha
Percent primary:	Nil
Altitudinal range:	0-60 m
Bioclimatic zone:	Coastal

<i>Silliera</i> -ice plant herbfield	on cliff terrace
Tauhinu shrubland	on hillslope
Wharaiki flaxland	on cliff
Tutu-rangiora-karamu shrubland	on hillslope, cliff

This RAP consists of a triangular-shaped coastal promontory separating Sponge Bay to the west and Shark Bay to the east. Rising steeply from the rocky Sponge Bay and Point shorelines are high Miocene mudstone and sandstone sea cliffs which are continually slipping and slumping, and are largely bare. On the more stable faces particularly the upper cliffs are pockets of tauhinu shrubland and introduced pasture grasses. Hillslopes immediately behind the cliffs have mixed shrublands and flaxlands dominated by native species, although introduced gorse, boxthorn and grasses are also common. Above the sea cliffs at the Point are a series of benches and clump backslopes which have pockets of herbfield dominated by *Selliera radicans*, ice plant, *Poa anceps* ssp. *anceps* and sea celery. The gently east-sloping hills above Shark Bay have poor quality pasture which scattered tauhinu shrubs and are grazed.

Tuaheni Point is the best and largest example of coastal herbfield and shrubland on coastal cliffs and terraces remaining in the district. There are also many roosting sites for sea birds e.g. pied shag. Of historical interest at the Point is a lighthouse which was abandoned in 1955 in favour of one on an adjacent ridge.

At the time of survey, cattle had strayed into the shrub – and flax-covered hillslopes above Sponge Bay. Stockproof fences will need to be maintained to minimise erosion and damage to vegetation.

Appendix 3.1

TR2

AREA NAME:	Tuamotu Island
NZMS 260 Z15:	490652
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Turanga
MAP:	2A.23

Total Area:	3.3 ha
Altitudinal range:	0-36 m
Landscape Unit:	island
Bioclimatic zone:	Coastal

Karaka forest	on hillslope
Wharariki flaxland	on hillslope
Sandfield	on sand hillslope
Fennel-Isolepis herbfield	on lower hillslope
Isolepis-fennel sedgeland	on colluvial toeslope
Ice plant herbfield on terrace Fennel-tree mallow	
Herbfield	on ridge
Cape ivy vineland	on terrace
Cocksfoot grassland	on terrace

This small steep-sided island consists of secondary native and exotic vegetation that have developed following periodic occupation, burning and farming by Maori. It was occupied (Uruhangenge Pa) in 1769 when Captain Cook arrived in Poverty Bay (MacKay 1966). The island has been further modified by quarrying late last, and early this century.

The gently slopes, concentrated in the eastern half, are highly modified with exotic weeds and pasture grasses and occasional planted trees e.g. Norfolk pine. Wharariki flaxland covers most of the steeper slopes and a small pocket of karaka forest grows on a midden site. Coastal Shrubs, e.g. kawakawa and *Pimelea prostrata* s.s., are also present on the hillslopes. Other minor areas of native-dominated vegetation include ice plant herbfield, *Isolepis nodosa*-fennel sedgeland and sparsely vegetated sandfield.

Planting trials of the endangered plant (Give 1990) kakabeak (*Clianthus puniceus*) have recently been carried out in the wharariki flaxland by the Department of Conservation. These plants are being regularly monitored.

The ice plant-dominated terrace at the eastern extremity is a well populated sea bird roost, although Tuamotu Island is not listed in Rasch (1989).

Appendix 3.1

Although the vegetation is highly modified, it has the potential to recovery. Troublesome weeds such as Cape ivy and blackberry, and the planted exotic trees should be removed to facilitate the natural succession.

Tuamotu is the sole island in the Turanga Ecological District.

TP8

AREA NAME: Kaiti Hill (Titirangi)
 STATUS: Protected Natural Area (Recreation Reserve)
 ECOLOGICAL DISTRICT: Turanga
 MAP: 2A.23

Total Area: 38.2 ha
 Altitudinal range: 0-129 m
 Grid Reference: Y18 476684
 Landscape Unit: plain surrounded island
 Bioclimatic zone: Coastal

five finger-karo-tutu scrub	on hillslope, colluvial toeslope 2.0 ha
tutu-karamu scrub	on cliff, hillslope 4.0 ha
wharariki flaxland	on cliff 3.0 ha
native plantation	on hillslope 2.5 ha
exotic plantation	on hillslope 3.0ha
exotic grassland	on hillslope 23.7 ha

This reserve, in two main parts, encompasses steep, erosion-prone, seaward slopes of Kaiti Hill and some gentler landward hillslopes. It is mainly in pasture with small pockets of primary flaxland, secondary scrub, exotic and native (some planted very recently) plantations. Most of the native vegetation is on seaward hillslopes in the south-east half. Here five finger-karo-tutu scrub, unrepresented elsewhere in the district protected areas, is well developed on the colluvial toeslopes and extends up onto the lower hillslopes. The unnamed koromiko, *Hebe* "Wairoa", classified as local by Given (1990), was growing on steep slopes among shrubs of tutu, karamu, rangiora and *hebe stricta* var. *macroura*. *Hebe* "Wairoa" is concentrated in the Wairoa-Gisborne region, growing mainly on the coast (large populations are at Makorori Beach) but is also found inland along the Parikanapa and Tarndale Roads (all sites are outside the district). In the Turanga Ecological District it was only otherwise recorded at Te Aroha RAP. Reclassification, affording greater statutory protection, is desirable for those parts of Kaiti Hill Recreation Reserve with significant ecological units.

Appendix 3.1

TPL

AREA NAME: W D Lysnar Recreational Reserve
STATUS: Protected Natural Area (Recreation Reserve)
ECOLOGICAL DISTRICT: Waiapu
MAP: 2A.22

Location: Wainui Beach, 6 km East of Gisborne
on the seaward side of SH35.

Percent primary: nil
Altitudinal range: 0 – 10 m
Bioclimatic zone: Coastal

This Recreation Reserve consists of a long, linear dune system that is very hilly and hummocky. The dunes are covered with a sward of vegetation including native sand binding grasses such as Spinifex and Pingao, exotic grasses, garden escapes, mosses, and native and exotic trees and shrubs. On the Southern Section, several Pohutukawas were planted some 30 years ago. The northern-most part of the Reserve, Makorori headland, dominates the view with a sharp jagged outline of the headland playing an important visual role in the context of the Wainui Landscape.

The northern end of the reserve contains the burial site for 59 Sperm Whales which stranded at Wainui in 1970.

The Recreation Reserved is subject to a management plan prepared pursuant to the Reserves Act 1977 and this should be read in conjunction with this Appendix.

Appendix 3.1

Tta

AREA NAME: Cook Landing Site
STATUS: Protected Area (National Historic Reserve)
ECOLOGICAL DISTRICT: Turanga
MAP: 2A.23

Field Centre:	Gisborne	Inventory Ref:	Y18047
Local Authority:	Gisborne DC	File Ref:	RHS004
Sub Region:	Eastern Coast	Area (ha):	0.4561
Tangata Whenua:	Ngati Oneone (Ngati Hau)	CMP:	No
Legal Description:	Lot 1 DP 7903 and Lot 57 DP7819, Block IV, Turanganui SD		
General Description:	History, culture		

Natural and Historic Values

This is the site of Captain Cook's first landing in New Zealand in 1769. It has plantings for species collected by Bank's.

It has a possible recorded historic site (Y18/52, midden) and the area is highly significant to Ngati hau (of Ngati Oneone) as it is where the first meeting with Cook took place. It is the site of first meeting between two cultures.

The reserve has appeal as a tourist attraction and for general recreational users. There are spot lights, seats, a stone memorial and commemorative plaques.

Threats to Natural and Historic Values

Threats include: aesthetic pollution from adjacent industrial land use (logging industry) and vandalism. Visitor pressure is low-moderate.

Management

Management needs: archaeological survey; interpretation; cone of vision review; active management (according to Historic Resource Strategy); raise local and national profile of Bank's Garden (landscape plan).

Appendix 3.1

TR12

AREA NAME: Awapuni Lagoon
 NZMS 260 Y18: 422683
 STATUS: Recommended Area for Protection
 ECOLOGICAL DISTRICT: Turanga
 MAP: 2A.23; 2A.24

Total Area: 2 ha
 Altitudinal range: 1-3 m
 Landscape Unit: tidal flat, new beach
 Bioclimatic zone: Coastal

Marsh ribbonwood-oioi shrubland on dune mound
 Sea rush-sea couch tussockland on dune hollow
 Oioi-sea couch sedgeland on dune
 Exotic grassland on rear dune

The sole remnant of a salt marsh vegetation type which was once widespread around the Awapuni Lagoon. This lagoon covered more than 300 ha between the Waipaoa River mouth and Awapuni road on the outskirts of Gisborne City, but was drained in the late 1950's for farm development.

The small strip of marsh ribbonwood dominated shrubland, the largest remaining population in the district, would have been part of a narrow zone along the margin of the lagoon. At the lagoon/sand dune interface sea rush tussockland would have predominated and the oioi sedgeland would have been typical of parts of the rear dunes between the lagoon and the sea. Poor quality pasture surrounds the native-dominated vegetation which is fenced into a larger paddock.

The main threats to the RAP are cattle/sheep damage and further lowering of the water table by artificial drainage (flooding still occurs during periods of heavy rain and surface water is removed by pumping into drainage channels, J.D. Galilee, pers. Comm.).

Appendix 3.1

TR11

AREA NAME:	Waipaoa River Mouth – Wherowhero Lagoon
NZMS 260 Y18:	395645; 392607
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Turanga
MAP:	2A.24; 2A.25; 2A.26

Total Area:	110 ha, 75 ha
Altitudinal range:	0-5 m
Landscape Unit:	tidal flat, new beach
Bioclimatic zone:	Coastal
<u>Ruppia</u> herbfield	in estuary
<u>Bolboschoenus</u> sedgeland	in estuarine lagoon
Salt water	in estuary, estuarine lagoon
<u>Sarcocornia</u> herbfield	on mudflat
<u>Spartina</u> grassland	on mudflat
Sea couch-sickle grass grassland	on mudflat
Sea rush tussockland	on estuary/rear dune interface
<u>Spinifex</u> grassland	on foredune
Exotic grassland	on foredune

This large RAP includes the northern and southern portions of the Wherowhero Lagoon estuary which, as a whole, extends over 200 ha. The middle portion of 69 ha is protected under Queen Elizabeth II Open Space Covenant. The RAP also includes the dunefield and wetlands between the northern end of the lagoon and the Waipaoa River mouth, similar terrain south of the lagoon mouth, and the sandspit enclosing the lagoon.

Although adventive species such as spartina, sea couch and sickle grass dominate large areas, there are some interesting native vegetation types, e.g. Ruppia herbfield, glasswort herbfield, sea rush tussockland, Bolboschoenus sedgeland and Spinifex grassland. Several of these types are already protected in the QE II covenant.

Wherowhero Lagoon estuary has high ranking as a Site of Special Wildlife Interest (Rasch 1989). Thirty-four species of coastal waders and shorebirds, including the endangered (Bell 1986) white heron, and threatened wrybill, Caspian tern, banded dotterel and New Zealand dotterel, have been recorded at the estuary. Other common birds include golden plover, royal spoonbill, eastern bar-tailed godwit, little egret, Asiatic whimbrel, pectoral sandpiper, and red-necked stint (Rash 1989; based on Ornithological Society records). Waipaoa River mouth is also listed as a Site of Special Wildlife Interest and has a Moderate-High ranking.

Cattle have access to, and have heavily trampled, parts of the estuary; especially those near Waipaoa River mouth, the mudflats are particularly susceptible. Aggressive adventive plants such as spartina, common in parts of the mudflats, are rapidly spreading. These problems will need to be addressed for future management.

Appendix 3.1

TP4

AREA NAME:	Wherowhero (Foxley)
NZMS 260 Y18:	385625
STATUS:	Protected Natural Area (QEI Open Space Covenant)
ECOLOGICAL DISTRICT:	Turanga
MAP:	2A.24; 2A.25
Total Area:	69.2 ha
Altitudinal range:	0-5 m
Landscape Unit:	tidal flat
Bioclimatic zone:	Coastal estuarine vegetation on estuary 22.2ha
(a) sea rush tussockland	estuary/rear dune interface
(b) sea couch grassland	mudflat
(c) <i>Spartina</i> grassland	mudflat
(d) glasswort herbfield	mudflat salt water in estuary 40.0 ha
(a) exotic vegetation	Sand field vegetation on sand dune
(b) Spinifex grassland	sand dune
	sand dune

The covenant protects approximately the middle third of Wherowhero lagoon which extends from Waipaoa River mouth south to Young Nicks Head. The vegetation is largely modified with swards of the aggressive adventive grasses, spartina and sea couch, covering mudflats, and numerous adventive herbs and grasses on the sand dunes. Patches of native vegetation include sea rush tussockland and glasswort herbfield on and around mudflats, and Spinifex grassland on sand dune. A few individuals of marsh ribbonwood were noted on an estuarine island (J.D. Galilee, pers. comm.).

Wherowhero Lagoon is listed as a Site of Special Wildlife Interest (Rasch 1989) and has a High ranking – the top ranked site in the district. Thirty-four species of coastal waders and shorebirds, including the endangered (Bell 1986) white heron, and threatened wrybill, Caspian ten, banded dotterel and New Zealand dotterel, have been recorded at the estuary. Other uncommon birds include golden plover, royal spoonbill, eastern bar-tailed godwit, little egret, Asiatic whimbrel, pectoral sandpiper and re-necked stint (Rasch 1989); based on Ornithological Society Records.

Appendix 3.1

TR14

AREA NAME:	Young Nicks Head (Te Kuri)
NZMS 260 Y18:	398599; 398594
STATUS:	Recommended Area for Protection
ECOLOGICAL DISTRICT:	Turanga
MAP:	2A.26

Total Area:	3 ha (forest) 19 ha (estuary)
Altitudinal range:	40-120 m 3-3 m
Landscape Unit:	former island, tidal flat
Bioclimatic zone:	Coastal

Karaka-kohekohe forest	on hillslope
sea rush tussockland	on mudflat
<i>Bolboschoenus</i> sedgeland	on mudflat
glasswort herbfield	on mudflat
mud	on mudflat
salt water	in estuary
exotic grassland	on reclaimed mudflat

The estuary is a smaller version of the adjacent Wherowhero Lagoon estuary with similar native vegetation types. In contrast, the troublesome adventive grass, spartina, common at Wherowhero, was not recorded. The small creeping native musk *Mimulus repens* was noted growing in the sea rush tussockland; this is the sole record for the district.

Many waders and waterfowl are present in the estuary which is given a Moderate ranking as a Site of Special Wildlife Interest (Rasch 1989; Orongo Lagoon). Threats to the estuary are mainly grazing and trampling by cattle which have periodic access. The unit is fenced on the north-east boundary but requires ring-fencing.

Four hundred metres north of the estuary is a small pocket of the only karaka-kohekohe coastal forest on former island in the district. However, it is heavily stock damaged with very depleted understorey and ground cover layers, and some canopy breakdown has occurred.

Appendix 3.1

TN44

AREA NAME: Waikoura Stream Bush
NZMS 260 Y19: 359494
ECOLOGICAL DISTRICT: Tiniroto

Total Area: 158.03 ha
Altitudinal range: 140-180 m
Bioclimatic zone: Coastal

Description

This PMA includes a small compact forest remnant amongst mature pines in the north-eastern corner of the Ecological District near its boundary with the Turanga Ecological District, and an extensive area of easterly-facing coastal cliffs, steep slopes and narrow stream gullies. The forest remnant extends from midslope to ridge crest in a small subcatchment of the Waikoura Stream. A narrow band of pines runs between the forest and the coastal slopes and faces. The vegetation of the forest remnant is tall primary coastal tawa-dominated forest, with hinau, pukatea, and rewarewa along the northern ridge. Karaka, ngaio and large lancewood are also scattered amongst the canopy. Kohekohe dominates the subcanopy. It fades to a small area of kanuka forest in the north-western corner. The vegetation on the steep coastal faces is dominated by secondary manuka scrub with tauhinu, and kanuka scrub → low forest. The more stable areas of the cliffs have scattered karaka amongst the scrub. The moister stream gullies have remnants of primary coastal broadleaved forest dominated by karaka with kohekohe, titoki and mahoe.

Feral goats likely graze the understory of the forest and part of the cliffs, however long term exclusion of domestic stock (due to the establishment of the pine plantation) and buffering from the pines has probably allowed the forest understory to regenerate and become more diverse and healthy.

Significance and Justification

This PMA is significant as it contains compact area of primary forest within the coastal bioclimatic zone, of which only c. 6 ha remains. It also contains an extensive tract of coastal cliffs and steep coastal facing hill slopes and stream gullies. It is continuous with PMA TN 46 along its southern boundary.

Appendix 3.1

TN46

AREA NAME: Wharekakaho Stream Bush
NZMS 260 Y19: 345462
ECOLOGICAL DISTRICT: Tiniroto

Total Area: 416.06 ha
Altitudinal range: 0-450 m
Bioclimatic zone: Coastal to Semi-coastal

Description

The PMA encompasses virtually all of the catchment of the Wharekakaho Stream, together with areas of coastal faces (including Waikara Stream) to the south and an additional small catchment and cliffs to the north. It forms part of the eastern or coastal faces of the Wharerata Ranges, rising from sea level to c. 450 m. There are broad ridges and some moderately sloping upper basins falling steeply to the main stream and coast. In its lower reaches the stream is sharply incised, with a small fan delta at its mouth. There is evidence of slumping and instability on the coastal faces in the past, but modern erosion is minimal except on the sea cliffs and stream margin. Railway Reserve land that transects the area is up to 250 m wide in parts and totals almost 30 ha. Paritu Road and SH2 bound the PMA to the west, with Wharekakaho Road bounding it to the north.

The vegetation of the PMA reflects a history of fire and grazing. The coastal faces are a mosaic of secondary tauhinu scrub (lower coastal faces) and kanuka scrub → forest (small clumps on the lower coastal faces and moist fertile sites). A small raupo-dominated wetland lies on narrow shelves of colluvial debris on the coastal face (c. 30-40 m a.s.l.). Coastal herbfields (with sea primrose and wild celery) are present on the rock slopes in the splash/spray zone.

Manuka scrub dominates on the slopes above the cliffs and on ridges throughout the PMA. It varies in height and associated species, according to age and soil factors. Scattered broadleaved trees and kanuka are present amongst the canopy in the older scrub. Young bracken (manuka) scrub is present at the southern end of the RAP, the result of a recent fire. Manuka dominates the secondary vegetation in the more fertile sites and the small northern catchment with scattered karaka and kohekohe amongst the tall even canopy. The oldest broadleaved vegetation lies in the moister gullies and lower stream slopes of the Wharekakaho catchment. It ranges from karaka treeland (small patches around the stream mouth and lower coastal faces), (pukatea)/mahoe-koekohe forest (stream margins and lower Wilding pines, blackberry, old man's beard (moderately abundant on the upper slopes near Wharekakaho Road), pampas grass (present in low numbers near the stream bed), were all noted within the PMA. However, only the later two are potentially invasive and will require control. The feral goat problem is substantial. Their browsing is preventing succession of the tauhinu shrubland to forest and keeping the understory of the forest open. Their control is also a priority.

Appendix 3.1

Significance and Justification

The PMA has significant ecological values relating to the integrity of the stream catchment and the continuity and diversity of indigenous vegetation – from coastal forest to herbfield, to the head of the Wharekakaho Stream (3 km inland). It is the best coastal catchment in the Tiniroto Ecological District. The PMA also has a SSWI ranking of 'moderate' with common field and bush birds recorded. A small pa site occupies a narrow ridge crest about 70 m above the sea immediately south of the Wharekakaho Stream.

Appendix 3.1

TN47

TOTAL AREA: Waiparapara Stack
NZMS 260 Y19: 358438
ECOLOGICAL DISTRICT: Tiroto

Tiroto Area: 0.5 ha
Altitudinal range: 0-10 m
Bioclimatic zone: Coastal I

Description

This PMA lies less than 100 m off the eastern coast of the Tiroto Ecological District. It is a small rock stack with coastal shrub and herb vegetation.

Significance and Justification

This PMA is one of only a few coastal rock stacks present with the Ecological District. The stack is a grey-faced petrel breeding site and has a 'High' SSWI ranking. This site was not visited during this survey.

Appendix 3.1

TN48

AREA NAME: Tikiwhata Stream Bush
NZMS 260 Y19: 345420
ECOLOGICAL DISTRICT: Tiniroto

Total Area: 224.5 ha
Altitudinal range: 20-420 m
Bioclimatic zone: Coastal to Semi-coastal

Description

This PMA covers almost the entire catchment of the Tikiwhata Stream in the narrow coastal section of the Tiniroto Ecological District. The slopes of the stream catchment are moderate to steep with scattered exposed rocky bluffs, long wide ridges and narrower spurs. The main stream has a narrow rocky bed that becomes incised towards the coast. The slopes end in steep coastal cliffs to the east. The Palmerston North-Gisborne railway line runs through the upper section of the PMA and includes 4 tunnels. The PMA is bounded by pine plantations to the north and fades to young scrub and pasture to the west and south. Paritu Road lies less than a kilometre to the west.

The vegetation within the PMA is typical of that which occurs after burning and clearance for pasture; manuka dominated scrub on the ridges and upper slopes, with coastal broadleaved forest and swards of tree ferns in the moister stream gullies. The ridges and upper slopes have the youngest manuka scrub, with mingimingi and tauhinu and *Corprosmia rhamnoides* abundant in the understory. The scrub has patches of hard fern amongst it. Older manuka dominated areas on the midslopes and shallow gullies have emergent rewarewa, with kohekohe, mamaku, tree ferns, pigeonwood, heketara, *Pittosporum ralphii*, wineberry, five finger and rare young tawa. The moist stream gullies are dominated by primary and advanced secondary broadleaved forest. The primary forest patches are tawa-dominated with emergent rewarewa, scattered titoki, epiphytic puka, nikau and pukatea. Kohekohe dominates the subcanopy with scattered larger trees present amongst the canopy. Kiekie, pigeonwood and mapoiu are also present in the subcanopy. The rest of the broadleaved forest is a mosaic of mainly kohekohe and titoki with karaka, pigeonwood, mahoe, tree fuchsia and mamaku. The moist stream side banks, particularly those inaccessible to stock, support *Novellana sinclairii*, houhere, rangiora, kawakawa, common willowherb, gully fern and common shield fern.

Vegetation disturbance and modification has been long term and ongoing within this PMA; burning (both for clearance and sparked by the fires of steam trains that used the line), clearance for pasture, possible logging (on the accessible upper slopes) and earth movement during the construction of the railway line and tunnels.

Domestic stock and feral goats have also had a marked impact with most of the PMA accessible to them and grazing/browsing noted in all but the most inaccessible slopes and sections of the stream banks. Mexican daisy, the only invasive weed noted, was abundant in some parts of the understory and in places along the stream. Kereru and Silver eye were noted.

Appendix 3.1

Significance and Justification

This PMA is significant as it covers virtually an entire stream catchment system in the coastal-semi-coastal bioclimatic zone of the Tiroto Ecological District. The steep dry coastal slopes of the eastern part of the district have suffered severe modification through fires and clearance with most of the coastal forest now reduced to narrow strips in gullies. It is the second largest vegetated stream catchment remaining in the series of sea flowing catchments that extend between Whareongaonga high point in the north and Mahanga in the south. The vegetation covers a very wide altitudinal gradient (20-420 m) and a full diversity of landforms.

Appendix 3.1

TN49

AREA NAME: Hauraki Stream Bush
NZMS 260 Y19: 342398
ECOLOGICAL DISTRICT: Tiniroto

Area: 69.4 ha
Altitudinal range: 20-400 m
Bioclimatic zone: Coastal to Semi-coastal

Description

This PMA covers most of the upper catchment of the Hauraki Stream, a small steeply incised sea flowing stream that lies c.6 km north of Mahanga. The slopes of the catchment are moderate to steep with long narrow spurs and ridges bounding the smaller incised side gullies. The PMA has some paddock fencing and fades to young scrub, hardfern, fernland or pasture on most boundaries. Paritu Road lies c.50 m away to the west.

Most of the vegetation is secondary, with pockets of primary trees and advance secondary broadleaved shrubland → forest in the lower stream gully slopes. Manuka dominates the secondary scrub with tauhinu, hardfern, mingimingi, *Coprosma rhamnoides*, and occasional kanuka. The advanced and primary vegetation is a mixture of titoki, tawa, kohekohe, karaka, pigeonwood, nikau, mahoe and swards of tree ferns.

The catchment has suffered long term modification, including burning and clearance and grazing by domestic stock and goats. Older vegetation remains only in the moist lower gully slopes and along the banks of the central incised stream valley.

Significance and Justification

This RMP is significant as a largely vegetated, mostly coastal stream catchment in the highly modified coastal zone of the Tiniroto Ecological District. It is one in the series of three sea flowing catchments that extend between Whareongaonga high point in the north and Mahanga in the south all of which are PMAs (PMA TN 46 and 48). It encompasses a wide altitudinal sequence (200-400 m) and contains a diversity of successional vegetation from hardfern fernland → manuka scrub → coastal broadleaved forest.

Appendix 3.2

OTUSTANDING NATURAL LANDSCAPES IN THE COASTAL ENVIRONMENT

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Appendix 3.2

LANDSCAPE UNIT 1

Unit Name:	Cape Runaway to Matakaoa Point
NZMS 260 Map Ref:	Y14, Z14
Landscape Type:	Cape
Map:	2A.1; 2A.2; 2A.3

Physical Description

This unit faces due north and comprised a long dramatic landform separating the Bay of Plenty from the Gisborne coastline. The unit is characterised by steep hills and escarpments often with an apron of flatter plateau land stretching out to a rugged coastline. The coast around Matakaoa Point contains a series of marine terraces that have been recognised by the Geological Society for New Zealand as being of regional significance. The strong east west orientation of the range which forms the backbone of this unit is a dramatic landform feature as is the entire unit.

The land cover of the unit comprises good pasture on the lower, flatter land and rough pasture and regenerating bush on the steeper slopes and gullies. The unit is exposed and there is little tree cover. There is a limited coastal fringe of Pohutukawa. The coastline is dramatic, rugged with rocky fingers extending out into the sea.

Visibility: Low

The unit has a relatively low visibility due to very limited road access. The main road, State Highway 35, passes through the valley to the south of this landform.

Visual Quality: High

Visual Absorption Capability: Low

Enhancers:

Rocky coastal edge

Dramatic landform

Detractors

Extent of bare pasture slopes

Visual Sensitivity:

This unit has a high visual quality and very little existing opportunity for the integration of visual change, apart from the reinforcement of natural landscape patterns through revegetation. Visual sensitivity is high due to the steepness of much of the terrain and the nature of its land cover.

Outstanding Natural Features and Landscapes:

Entire unit 1.

Appendix 3.2

LANDSCAPE UNIT 2

Unit Name:	Hicks Bay, Te Araroa
NZMS 260 Map Ref:	Z14
Landscape Type:	Cape
Map:	2A.3; 2A.4; 2A.5

Physical Description

This unit encompasses three sandy duneland bays and the two headlands separating them. In the north Hicks Bay is the outlet for the Wharekahika River and smaller Te Kapa Stream. The Wharekahika River is notoriously unstable and has in the past migrated from one side of the bay to the other. The bay itself has a history of accretion.

Hicks Bay was also formerly the scene of a busy frozen meat industry. The wharf at the northern end of the bay and derelict buildings further inland remain as testimony to this former era. Fishing boats habitually moor in Hicks Bay. Separated from Hicks Bay proper by a small rocky headland is the small enclosed Onepoto Bay. There is a small beach settlement located here, much of it on low-lying land. The beach is also accreting here, although there is no substantial foredune to protect the settlement.

The Haupara Point, rocky headland protrudes strongly eastward separating Hicks Bay from Kawakawa Bay and Te Araroa. This rocky headland, covered predominantly in native vegetation, is a dramatic landform feature. Kawakawa Bay is the outlet for the Karakatuwhero and Awatere Rivers. The beach in the north has a history of accretion whilst in the south, near to the township of Te Araroa there has been a reversal to erosion.

Coastal erosion has exposed geological features of some importance along the coast both at Hicks Bay and in the cliffs at Te Araroa. Both Hicks and Kawakawa Bays have a deep coastal plain with strong enclosure provided by the surrounding hills and escarpments. There are three marae within the unit; one within the settlement of Hicks Bay, one at the northern end of Kawakawa Bay near the camp ground and one in the settlement of Te Araroa. The pohutukawa in Te Araroa, Te Waha-o-Rerekohu is reputed to be one of the largest in New Zealand.

Visibility: High

The unit's visibility is due to the relatively flat bay landscape and high vantage point provided by the road transverse the Haupara Point headland. There is also a public lookout at a high point although the path to the lookout requires maintenance.

Visual Quality: Moderate High

Visual Absorption Capability: Moderate Low

Enhancers:

Landform
Rivers, lagoons
Natural flatland vegetation

Appendix 3.2

Bush covered headland

Rock outcrops

Wharf

Detractors:

Visual prominence of Hicks Bay Motel units. Lack of building integration with landscape.

Visual Sensitivity:

This unit has a moderate-high visual sensitivity. Some opportunity for successful integration of Visual change is offered at the back of the bay by the variable landform at the foot of the enclosing hills. Mature vegetation also provides integration.

Outstanding Natural Features and Landscapes:

Haupara Point

Entire unit 2

Appendix 3.2

LANDSCAPE UNIT 3

Unit Name:	East Cape
NZMS 260 Map Ref:	Z14, Z15
Landscape Type:	Cape
Map:	2A.5; 2A.6; 2A.7; 2A.8

Physical Description

This unit has a narrow coastal environment with steep hill faces and scarps providing a clearly defined inland edge. The coastline alternates between rocky shores with rock terraces extending out into the sea and sandy shores and dunelands. The width of flatland also varies with at times a narrow strip between hill and sea whilst in other areas there is a wide coastal plain. The Te Awakari stream and numerous other small streams flow out to the sea within this unit.

The predominant land use is pastoral farming with small areas of exotic forestry, and regenerating native bush cover. The land is exposed and the duneland forms are susceptible to wind erosion and 'blow outs'.

The East Cape lighthouse – now decommissioned – and East Island are highly memorable components of the unit.

The area of East Cape and East Island was identified by DOC as an ASCV.

Visibility: Moderate

A no exit road follows tightly around the coastal edge of this unit between Te Araroa and East Cape. Beyond this there is no public road access and the unit is difficult to experience except by air. The road to the lighthouse is a popular tourist experience with a high number of visitors especially during the summer period.

Visual Quality:

Visual Absorption Capability:

Enhancers:

Landform
Rock shelves
Streams
Pohutukawa
East Island
Distant headlands

Detractors:

Power lines. Settlement without integrating vegetation. Masts at lighthouse.

Visual Sensitivity:

The unit has a high visual sensitivity due to the nature of the landform, lack of integrating features and high visibility.



Appendix 3.2

Outstanding Natural Features and Landscapes:

East Island

Otiki (Lighthouse Knoll)

Rock Shelves

Entire Unit 3

Appendix 3.2

LANDSCAPE UNIT 4

Unit Name:	Waiapu River Estuary
NZMS 260 Map Ref:	Z15
Landscape Type:	Hill Country
Map:	2A.8

Physical Description

This unit is dominated by the wide, braided Waiapu River and smaller Waikawa Stream mouth and a long low hill landform with a north east, south west orientation which parallels the coast in the south of the unit. Both the Rangitukia, north of the river mouth, and Te Wharau beaches are accreting. They are sandy beaches with large drifts of log flotsam carried down the Waiapu River. The lagoon/estuary at the river mouth was identified by DOC as an ASCV. The sea cliffs south of Te Wharau Beach Road have a number of active landslides.

Landuse on the hill country of grazing whilst on the river flats cropping prevails. There is scattered housing throughout with the township of Tikitiki located further west up the Waiapu River valley.

The silt plume at the river mouth is very marked with strong banded colouration of the immediate coastal waters.

Visibility: Moderate-High

The Rangitukia Beach and Te Wharau Beach Roads provide access to the beach although both are no exit roads.

Visual Quality: Moderate

Visual Absorption Capability: Moderate-Low

Enhancers:

Long sweep of beach
Enclosing headlands
River/Habitat
Central isolated hill landform
Bush backdrop and hills
Scattered gravestone

Detractors:

Patterns of landuse. Weed species. Erosion. Lack of integration for built structures.

Visual Sensitivity:

Moderate. The open flatness and relatively steep and eroding hills provide limited opportunity for integration of visual change. However, on the upper dune terraces, with planting, development can be integrated successfully.

Outstanding Natural Features:

Waiapu River Estuary

Appendix 3.2

LANDSCAPE UNIT 5

Unit Name:	Koutunui Head to Koutunui Point
NZMS 260 Map Ref:	Z16
Landscape Type:	Mountain Ranges
Map:	2A.12; 2A.13

Physical Description

This unit divides Waipiro from Tokomaru Bay. It is rugged, steep and incised with an indented coastal edge. Cliffs rise abruptly from rocky shelves to steep bushed slopes and peaks of up to 500 metres in height. Streams serving these ranges have eroded deep ravines and punctuate the coast at regular intervals. There is evidence of a major land slip immediately below the Upoki where two gently sloping terraces contrast sharply with the landform elsewhere on this section of coastline.

Much of the unit is inaccessible and difficult to farm, so it still benefits from significant native bush cover and all but the steepest and most rugged slopes are heavily vegetated. One or two small areas have, however, been cleared. These bushed headlands and coastal hill slopes in the north of the unit have been recognised as having particular ecological value and are designated as Areas of Significant Conservation Value. The Waimatau Bay Forest Heritage Fund Acquisition and the Koutunui Head Conservation Area comprise the largest catchment system under indigenous forest on the east coast and the adjacent inter-tidal and sub-tidal habitats exhibit good examples of marine habitat succession.

The unit is remote, one of the most inaccessible areas of the Gisborne Coast and consequently has no settlements within the coastal environment.

Visibility: Low

No vehicular access to the coastal edge.

Visual Quality: High

Visual Absorption Capability: Low-Moderate

Enhancers:

Intact Bush
Landform
Coastal Edge
Islands

Detractors:

None

Visual Sensitivity:

Moderate-High. Much of the unit has protection from its various designations, whilst the inaccessibility and topography makes development difficult.

Outstanding Natural Features and Landscapes:

Entire Unit 7

Appendix 3.2

LANDSCAPE UNIT 6

Unit Name:	Mawhai Point
NZMS 260 Map Ref:	Z16
Landscape Type:	Mountain Ranges
Map:	2A.14

Physical Description

The unit consists of Mawhai Point. The headland is dramatic with its naturally eroding face. The area has a long history of European habitation. The coast is rocky and cliffed forming part of Mawhai Headland.

The enclosing hills contain a mix of pasture, erosion, regenerating native bush and exotic trees with the northern part of the unit having a more intact and diverse pattern of landuse and land cover and the southern part being steeper and more barren.

Mawhai Point itself is a dramatic rocky Headland with a bulbous seaward knoll and thin low-lying connection back to the land.

Visibility: High

Roads access the coastal edge around the northern and central bay and provide good visual access to the unit. The southern side of the bay has no public vehicle access but is clearly visible at a distance across the bay.

Visual Quality: Moderate

Visual Absorption Capability: Moderate

Enhancers:

Dramatic headland
Bay enclosure
Fine sandy beach
Vegetation

Detractors:

Some erosion

Visual Sensitivity:

Moderate. There is some opportunity for enhancement with a moderate visual quality and moderate visual absorption capability.

Outstanding Natural Features:

Mawhai Point.

Appendix 3.2

LANDSCAPE UNIT 7

Unit Name:	Nuhiti
NZMS 260 Map Ref:	Z16
Landscape Type:	Mountain Ranges
Map:	2A.14; 2A.15

Physical Description

The unit is relatively remote with public access extending from Anaura Bay in the south just over the ridge. It stops however at the private entry to Nuhiti Farm on the hills above the coast. The coastline is gently indented with a sandy bay located behind Motuhina, a small picturesque island.

Visibility: Low

Access to the coast is only available across private land with public access limited to the hills overlooking the southern part of the unit. From the north Mahwai Point screens views of the unit from Tokomaru Bay.

Visual Quality: Moderate-High

Visual Absorption Capability: Moderate-High

Enhancers:

Dramatic coastline
Headlands
Remnant bush
Motuhina
Sandy bays

Detractors:

Erosion

Visual Sensitivity:

Moderate. The bay areas within this unit have considerable opportunity for the integration of change whilst the northern, steeper and more hilly coastline has little opportunity to integrate change.

Outstanding Natural Features:

Motuhina Island

Appendix 3.2

LANDSCAPE UNIT 8

Unit Name:	Nuhiti
NZMS 260 Map Ref:	Z16, Z17
Landscape Type:	Island
Map:	2A.15

Physical Description

This unit comprises two bays with extensive golden sandy beaches enclosed by prominent headlands at the northern and southern extremes of the unit. Marau Point which defines the southern edge is a large promontory of sedimentary rock, its strata clearly visible tilted up toward the north presenting a fractured and eroded scarp face backed by a more gentle-slope. Morutoroi Island, lying a short distance offshore was once part of this truncated range and its present separation from the mainland bears witness to the erosive nature of the sea on this coast. This island was once inhabited by Maori, renowned by their skill in the art of working greenstone, brought up from the South Island.

Bush remnant vegetation is scattered throughout the unit although larger areas are in evidence in the north. Here the Anaura Bay Scenic Reserve extends to the shore. It is designated as such by virtue of its rare mountain – coastal vegetation succession. In addition the bay as a whole is recognised as such by virtue of its rare mountain – coastal vegetation succession. In addition the bay as a whole is recognised by DOC as a site of National Historic and Cultural importance. A monument has been erected on the beach by the Historic Places Trust to commemorate Cook's visit in 1769.

The predominant land use is pastoral with some crops grown on the coastal stream flats. Dispersed groupings of exotic forestry species are located in three discrete areas on the hilltops but otherwise the unit is exposed with soil creep and patches of erosion apparent on the grassed hill slopes.

Access to the unit is limited with only the Anaura Road extending, part metalled, to the narrow coastal strip behind Anaura beach. Here, the small settlement is dispersed along the coast edge. It includes the Anaura Marae name Hinetamatea after the wife of the grandson of a famous Hauiti from Uawa. Here too is located a school and an attractive camp ground.

Marau Point extends almost 2 km out from the shoreline.

Visibility: (Anaura) High

Access to the coast is provided by Nuhiti Road. The road skirts the coastal flats to give access to Nuhiti Farm and homestay.

Visual Quality: Moderate-High

Visual Absorption Capability: Low-Moderate

Enhancers:

Motutoroi Island

Headlands

Appendix 3.2

Golden Sandy Beach

Camp ground

Road position

Detractors:

Pattern of land use. Erosion.

Visual Sensitivity:

Topography and a lack of vegetation cover around Anaura allow little scope for large scale integration of development. Sensitive small scale change may be accommodated.

Outstanding natural Features:

Motuoroi Island

Marau Point

Appendix 3.2

LANDSCAPE UNIT 9

Unit Name: Karaka Bay
NZMS 260 Map Ref: Z17
Landscape Type: Hill Country
Map: 2A.17

Physical Description

Tokatea Rocks have, in the past, experienced major land slips as a result of coastal erosion. This has given rise to the 'slumped' appearance of the headland.

Around Karaka Bay the topography appears more denuded, broad stream flats and low rounded ridges provide extensive areas for pasture.

Partly due to the lack of tree and shrub cover (only isolated kanuka and weed species such as gorse remain), erosion of the hillside is a notable problem. Large land slips caused by coastal erosion are relatively frequent, but more apparent are the areas of bare rock, exposed by minor slippages and sheet erosion.

The lack of tree cover means that shade and shelter are scarce – problem recognised by the users of the camp site and beach.

Visibility: (Karaka Bay) Low

No road or vehicular access to the coastal edge.

Visual Quality: Low-Moderate

Visual Absorption Capability: Low-Moderate

Enhancers:

Beach

Enclosure provided by headlands

Detractors:

Erosion

Visual Sensitivity:

Little opportunity for integration exists with Kaiaua Bay, part due to the high visibility of the area, part to the steep topography and low levels of vegetation cover.

Outstanding Natural Features:

Island off Te Karaka Point

Appendix 3.2

LANDSCAPE UNIT 10

Unit Name:	Tolaga Bay North
NZMS 260 Map Ref:	Z17
Landscape Type:	Hill Country
Map:	2A.17

Physical Description

The unit is relatively small, confined to the discrete by area. Its edges are clearly defined by the towering white cliffs to the south and the upthrust strata of Te Karaka Point which continues inland as a narrow ridge visually separating the coast area from the inland flood plain of the Uawa River. The river, meandering across the broad flood plain has been unable to breach this ridge. It swings briefly to the west prior to passing through a break in the ridge and entering Tolaga Bay. Around the river mouth the bay is sheltered from the erosive forces of the open sea and has been an area of significant deposition. The extensive coastal flats, the long sandy beach, lagoon and spit all point to an accumulation of material both from the Uawa River and from littoral action.

Much of the estuarine margins of the Uawa River estuary are zoned in the Cook County Scheme as Conservation Zones by virtue of its Moderate – High Site of Significant Wildlife Interest (SSWI) rating. The rush sedge estuarine wetland, mud flats and adjacent dune lands support diverse birdlife and the river supports one of the most notable Whitebait fisheries in the region.

Vegetatively, the area is denuded of native bush cover. Small pockets cling to the steeper gully slopes on the higher land inland from the coast, but elsewhere pasture is dominant. Around the settlement of Tolaga Bay some amenity planting has been carried out in the past.

A number of settlements are scattered around the mouth of the Uawa River. Hauiti, across the river from Tolaga, had developed along Highway 35. Predominantly a farming settlement, Hauiti draws on the coastal and valley flats where vineyards, extensive pasture and more intensive cropping are in evidence. Titirangi is a small settlement at the base of the steep coastal ridge on the southern side of Tolaga Bay, spreading onto the sandy spit enclosing the lagoon.

The area is well served by the road network. Highway 35 skirts the coast at the mouth of the Uawa River and minor roads on both sides of the bay give access to the base of the cliff.

Visibility: Moderate-High

Roads extending from Tolaga Bay allow visibility throughout most of the unit.

Visual Quality: Moderate

Visual Absorption Capability: Moderate

Enhancers:

Cliffs

Beach

River



Appendix 3.2

Detractors:

None

Visual Sensitivity:

The settlement of Tolaga Bay, and nearby settlements offer potential for integration of new development. Elsewhere, however, the topography has discouraged development and the open aspect of the unit would make change difficult.

Outstanding Natural Features:

Te Karaka Point Escarpment

Uawa River Estuary

Appendix 3.2

LANDSCAPE UNIT 11

Unit Name:	Pourewa
NZMS 260 Map Ref:	Z17
Landscape Type:	Hill Country
Map:	2A.17; 2A.18

Physical Description

This unit divides Tolaga Bay from Waihou Bay. It has a continuous rocky and cliffed shore line and includes the offshore Pourewa Island.

The cliffs vary in height and appearance considerably as the land rises and falls and are deeply eroded with gullies, reflecting the heavy run-of from the pasture above. Scattered bush remains on the steeper coastal scarp slopes but elsewhere the area is denuded of trees and scrub vegetation. At the base of the cliffs broken water indicates offshore rock outcrops and wave cut platforms. They become more pronounced around Pourewa Island and the unnamed headland that defines the southern edge of the unit.

The area around Pourewa Island has been designated an Area of Significant Conservation Values in recognition of its breeding populations of seabirds, forest vegetation on Pourewa Island and scenic value. A monument of Cook's Cove commemorates Cook's visit in October 1769.

The steep and rugged topography has prevented both settlement and access into the coastal area of this unit.

Visibility:	Low
Visual Quality:	Moderate-High
Visual Absorption Capability:	Low-Moderate

Enhancers:

Rugged coastline/Landform
Islands
Cliffs and Rock Outcrops

Detractors:

Pattern of vegetation clearance
Erosion

Visual Sensitivity:

Low-Moderate. Visibility is low throughout the unit, however, there is little vegetation cover to offer opportunities for integration of development but the steep topography, whilst making construction difficult, does provide the possibility of concealing development amongst the landform.

Outstanding Natural Features and Landscapes:

Entire unit 13 (including Pourewa Island).

Appendix 3.2

LANDSCAPE UNIT 12

Unit Name:	Waihau Bay, Waiharehare Bay
NZMS 260 Map Ref:	Z17
Landscape Type:	Hill Country
Map:	2A.18; 2A.19; 2A.20

Physical Description

This unit, some 13 kilometres in length is enclosed at either end by massive rocky promontories, their rugged cliffs fall sheer for more than 100 metres to broken rocky shelves at sea level. Between these two headlands the curving sweep of the coast is interrupted by shall sandy Bays and smaller rocky outcrops. The continued erosion of this coastline has resulted in extensive wave cut platforms being formed at the base of the cliffs.

Along this coast the north-east, south-west geological pattern reflects the predominant orientation of the Raukumara Range which forms the spine of the peninsula. At intervals, outcrops of a more resistant sand stone intersect the coast. These outcrops are marked by the incidence of wave cut platforms, between which bands of less resistant rock are characterised by the shallower bays of Puatai and Waiharehare. The Geological Society of New Zealand has identified their shore platforms as being of particular value.

The coastal strip tends to be very narrow, the scarp slope rising sharply from the beach of the upland areas. Here, the hills are frequently punctuated by deeply cut stream valleys flowing rapidly down to sea level.

Vegetation cover comprises mainly grassland with regenerating Manuka scrub on some valley slopes. Erosion is a problem and attempts have been made to address this by establishing plantations of soil conservation trees.

Access to the area is poor, Highway 35 runs some distance inland, behind the coastal ranges and only the Waihau Road provides vehicular access to Waihau Beach.

Visibility: Low-Moderate

Road access is only feasible to the north of Waihau Bay, terminating at Loisel's.

Visual Quality: Moderate to High

Visual Absorption Capability: Low-Moderate

Enhancers:

Long visible coastline

Headlands

Remnant Bush

Beach

Surf

Detractors:

Erosion. Lack of vegetation.



Appendix 3.2

Visual Sensitivity:

Moderate

Outstanding Natural Features:

None identified

Appendix 3.2

LANDSCAPE UNIT 13

Unit Name:	Whangara, Waiomoko
NZMS 260 Map Ref:	Y18
Landscape Type:	Hill Country
Map:	2A.20; 2A.21; 2A.22

Physical Description

Within this unit three distinct landform types are in evidence, influencing the character of the coastal edge. The coast between Gable End Foreland to the Pakarae River is similar in character to that of previous units; steep cliffs and denuded scarp slopes rising from a rocky wave cut platform to eroded and dissected hills and a coastal edge that alternates between craggy headland and sheltered bay. To the west of Pakarae River, a series of several Holocene terraces formed by uplift due to earthquake activity, has been identified as an important geological feature.

The low-lying plain across which the Pakarae and Waiomoko Rivers meander presents a very different coastal edge. The marine/land interface comprises a narrow beach behind which sand dune systems have developed. The two alluvial flood plains are divided by a low ridge composed of mudstones. The Waiomoko River estuary has been designated by DOC as an Area of Significant Conservation Value by virtue of its fauna, flora and wildlife values.

From the edge of Waiomoko flood plain, south to Turihaua Point, the landform increases in height once more. Parikonohi Point is a striking feature; a flat topped headland edged by scarp cliffs which are deeply furrowed with gullies and clad with scattered native vegetation. Below this feature, the Pouawa River flows into a small lagoon created by littoral action damming the river mouth.

Throughout this unit the land use is predominantly pastoral. This hill slopes are denuded of vegetation with fragmentary remnants remaining in the gullies and steeper slopes around Parikonohi Point.

Access to the unit is restricted to Pah Road which serves Whangara. This settlement contains Whitireia Meeting House. On this building a carving commemorates Paieka, who travelled to New Zealand on the back of a whale. Access to the coast is also possible at Turihaua Point via Highway 35.

Visibility:	Moderate
Visual Quality:	Low-Moderate
Visual Absorption Capability:	Low-Moderate
Enhancers:	
Beaches	
Islands	



Appendix 3.2

Detractors:

Poorly integrated housing development

Visual Sensitivity:

Moderate

Outstanding Natural Features:

Whangara Island

Reefs

Waiomoko River mouth, Pouawa

Appendix 3.2

LANDSCAPE UNIT 14

Unit Name:	Tatapouri, Makorori
NZMS 260 Map Ref:	Y18
Landscape Type:	Hill Country
Map:	2A.21; 2A.22

Physical Description

The unit comprises a short section of uniform coastline dominated by Tatapouri Point. The headland has in the past been subject to bedding plane failure resulting in a major land slip. This demonstrates the high sheer stress experienced by the cliffs of the coastline induced by coastal erosion. Tatapouri Point divides the unit into two sections. A long sandy beach extends south to Makorori Point whilst, to the north, the narrow coastal edge is traced by Highway 35. The road is confined to an artificial causeway sandwiched between the steep coastal hill slopes and the beach. It skirts Turihaua Point and continues along the coastal edge before climbing on a direct route over Tatapouri Point. The road surface is visible for some distance from the beach as it climbs over the headland despite sitting comfortably within an existing valley. The wider planer shore platform at Tatapouri has been identified as a landform of scientific, education and scenic value by the Geological Society of New Zealand.

Patches of remnant karaka cling to the steeper slopes and mature plantings of exotic tree species are associated with homesteads. More recent native planting has taken place at Tatapouri but elsewhere the rugged landscape is primarily pastoral.

The settlements have generally developed on flat, sheltered land associated with the headlands. Makorori and Tatapouri occupy opposite sides of Tatapouri Point whilst other scattered settlements and homesteads cluster on the more exposed hillsides.

Access along the coastal edge is maintained by Highway 35 providing a high visibility to the entire unit.

Visibility:	High
Visual Quality:	Moderate
Visual Absorption Capability:	Low-Moderate

Enhancers:

Beach
Rock Shelves

Detractors:

None

Visual Sensitivity:

Low-Moderate

Outstanding Natural Features:

Reefs
Tatapouri

Appendix 3.2

LANDSCAPE UNIT 15

Unit Name:	Wainui/Tuahine
NZMS 260 Map Ref:	Y18
Landscape Type:	Hill Country
Map:	2A.22; 2A.23

Physical Description

This unit comprises a long sweeping sandy bay, terminated by Tuahine Point, an isolated and rocky finger of sand stone projecting out from the coast.

Immediately back from the beach, a low foredune, under considerable erosive pressure as a result of unrestricted access, extends the length of the bay. Beyond the coastal edge a swathe of residential development runs along Highway 35 making up the settlement of Wainui. In Wainui the majority of residential development has taken place along the coastal edge largely to take advantage of the beachfront location. The hills here are low and rounded with deeply cut and attractively bushed valleys.

Behind Tuahine Point the urban area spills out onto the flat reclaimed dune land, now primarily under pasture. Whilst little vegetation remains on the open hill slopes, the settlements have extensive amenity planting. Semi-mature Pohutukawa, Norfolk Island Pine and other coastal species thrive in the maritime environment. On the agricultural land behind Tuahine Point, mature exotic shelter belts delineate the field boundaries.

Visibility:	High
Visual Quality:	Moderate
Visual Absorption Capability:	Moderate

Enhancers:

Amenity planting
Sandy Beach
Tuahine Point

Detractors:

New subdivision on ridge

Visual Sensitivity:

Moderate

Outstanding Natural Features:

Tuahine Point

Appendix 3.2

LANDSCAPE UNIT 16

Unit Name:	Tuamotu Island
NZMS 260 Map Ref:	Y18
Landscape Type:	Island
Map:	2A.23; 2A.24; 2A.25; 2A.26

Physical Description

This unit is striking in its contrast to those flanking it primarily due to the heavily populated settlement of Gisborne, but also as a result of its extensive spectacular view and wide sweeping bay, exaggerated by the low-lying flood plain of the Waipaoa River. Two dramatic rocky headlands – both with sheer cliffs enclose the bay, delineating the extent of the unit.

The city of Gisborne has developed around the mouth of the Turanganui River. It is limited in its growth to the east by sand stone uplands of which Tuaheni Point is composed, however, to the west, on the extensive flood plain there are no such restrictions on its growth. Only a small proportion of the city is in contact with the coastal edge.

Titirangi Park, originally a Maori Pa site, has recently been established as a recreational reserve. It screens much of the east of the city from the coast, rising about 129 metres above sea level.

Whilst a small park with some mature tree cover at the river mouth provides some screening, unattractive industrial and wharf storage areas still intrude on the coastal zone. On the east side of the river an area of reclaimed land accommodates timber storage yards and petrochemicals silos.

To the west of the city the beach extends in a broad crescent, traced by Centennial Marine Drive which terminates at the mouth of the Waipaoa River. Much of the flood plain is devoted to intensive agricultural cropping, although nearer the coast, salt marshes dominate the landscape. Between the Waipaoa River and Young Nicks Head, a large area of sand accretion has developed in the lee of the headland.

The Wherowhero and Waipaoa estuaries are particularly notable for the ecological value of their wetland, estuary and coastal lagoon habitats. The Wherowhero estuary comprises a 200 hectare coastal lagoon estuary and in addition an associated 30 hectare tidal mud flat occurs at the mouth of the Waipaoa River. The site has been designated as a Priority One Recommended Area for Protection (RAP) in the Turanga Ecological District PNA Survey report. Wherowhero lagoon has a high SSWI rating for its coastal wader population and the Waipaoa River mouth has a SSWI rating of Moderate-High.

Wherowhero lagoon, separated from the bay by a long sand spit was once a section of the river before coastal erosion provided a shortened route to the sea. Consequently this section was abandoned and gradually became silted up and isolated.

Taller vegetation is scattered in sparse pockets around the unit. Little exists on the flood plain with the exception of the occasional shelter belt but within Gisborne, native and exotic trees have been established in the cities coastal parks.

Appendix 3.2

Access to the coast is comprehensive throughout the unit by road, and Gisborne's port allows easy access by sea.

Visibility:	High
The unit contains a centre of population.	
Visual Quality:	Low/moderate-Moderate
Visual Absorption Capability:	Low/moderate-Moderate
Enhancers:	
Headlands/Cliffs	
Beach	
Amenity planting	
Detractors:	
Some industrial scale/activity and associated works	
Visual Sensitivity:	
Low-Moderate	
Outstanding Natural Features:	
Tuahine Point	
Young Nicks Head – Te Kuri	
Sponge Bay Island	

Appendix 3.2

LANDSCAPE UNIT 17

Unit Name:	Whareongaonga
NZMS 260 Map Ref:	Y18, Y19
Landscape Type:	Mountain Ranges
Map:	2A.27

Physical Description

This unit, the most southerly in the study is one of the more extensive, including 16 kilometres of coastline. Generally the landform is fairly uniform throughout the unit, steep hills with deeply eroded stream gullies falling to dissected coastal cliffs and rocky shelves. Intermittently this pattern is broken by small rocky headlands and shallow sandy bays. Occasionally exceptions interrupt this general pattern. Whareongaonga, for example is a large stratified headland edged by sheer indented cliffs which enclose small bays. This headland has been designated an Area of Significant Conservation Value by virtue of its scenic value and is recognised as being representative of the coastal features and landforms in this region. At a number of locations along the cliffs bedding plane failure and other slippages are evident indicating a coastal system in erosive retreat.

Vegetation cover is predominantly pastoral with encroaching blocks of exotic forestry in some areas. Indigenous bush vegetation is regenerating on many of the valley sides and on the steeper coastal edge slopes.

There are no settlements along the coastal edge and little vehicular access. In the south of the unit the railway runs briefly parallel to the coast, its cut platform clearly visible from the sea and air. Forestry tracks allow limited access to the back of the coastal zone.

Visibility:	Low
Visual Quality:	Moderate
Visual Absorption Capability:	Low-Moderate

Enhancers:

Landform
Coastal Edge

Detractors:

Pattern of land use

Visual Sensitivity:

Low-Moderate

Outstanding Natural Features:

Taungaatura to Waiparapara (including Whareongaonga)

Appendix 3.3

MARINE AREAS OF SIGNIFICANT CONSERVATION VALUE

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Appendix 3.3

SITE NUMBER: 05-013

Site Name:	Lottin Point/Matakaoa
NZMS 262:	(1:250,000) map series
Sheet No:	Y14 & Z14
Grid Reference:	670.950
Map:	2A.1; 2A.2; 2A.3

Locality Description and Site Summary:

The Matakaoa Volcanic coast is located at the tip of the East Cape between Cape Runaway in the West and Hicks Bay in the East, some 34 kilometres. Lottin Point is located near the centre and is representative of the whole site. The Lottin Point – Hicks Bay Site has significant marine, as well as terrestrial, ecological flora and fauna values, outstanding underwater scenery and outstanding terrestrial natural features and coastal landscape values.

Protected Areas:

On every relevant ground of scenic and environmental quality and scientific interest, Lottin Point must be ranked in the first priority of gazetting as a Marine Reserve. (Morton, J., 1989).

Part of the adjacent land area is a proposed local purpose Recreation Reserve. Transitional Gisborne District Plan.

Part of the adjacent land area is recommended for protection in the Pukeamaru Ecological District PNA Survey report as being one of the Districts rare remnants of coastal forest with a high diversity of vegetation types (Regnier, C., 1988).

Ecosystems, Flora and Fauna Habitats:

Lottin Point has marine biogeographic features which are unique. The site is located in close proximity to the Kermadec Trench and has many of the biogeographic features of a clean steep off-shore island, including a species of vermetid gastropod (*Dendropoma novastoa lamellosum*) not found elsewhere on the N.Z. mainland (Morton, J., 1989). Lottin Point is located at the centre of the Matakaoa volcanic region and supports an unusual assemblage of marine plant and animal life including examples of northern algae species (*Vidalia Colensoi*, *Xiphophora chondrophulla*, *Carpophyllum plumosum* and *C.angustifolium*) and of southern algae species (*Halopteris congesta*, *Halopteris funicularis*, *Chaetomophora coliformis*) and of southern algae species (*Halopteris congesta*, *Halopteris funicularis*, *Chaetomophora coliformis*) (MAFISH 1987).

Scenic Values:

The Lottin Point subtidal area is nationally recognised as an outstanding dive location. The underwater scenery, clear water and the diversity and abundance of marine life attract divers the year round (MAFISH 1987).

Appendix 3.3

The steep coastal hills between Cape Runaway and Lottin Point are listed under Regionally Significant Features and Landscape in the Boffa Miskell Assessment of Coastal Landscape for EBOP. The coastal landscape between Matakaoa Headland and Waiaka, west of Lottin Point, is of outstanding quality and also the best representative example of its type in the region (Smale, S., 1993).

Boundary of Area of Significant Conservation Value:

All the part of the Coastal Marine Area between Waiaka Point at Map Ref: Y14 640.933 in the West, and Hicks Bay at Map Ref: Z14 787.899 in the East, contained by the Line of Mean High Water Springs and a line running parallel one nautical mile off-shore.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of a high standard of water quality.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater and marine ecosystems.
- ▶ Protection of the outstanding and significant natural features and coastal landscapes.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-014

Site Name:	Hicks Bay
NZMS 262:	(1:250,000) map series
Sheet No:	Z14
Grid Reference:	775.885
Map:	2A.3; 2A.4

Locality Description and Site Summary:

Located at Hicks Bay this site comprises the Wharekahika River estuary and associated coastal lagoons and intertidal beach. The site has significant ecological, fauna and flora and wildlife values.

Wetlands, Estuaries, Coastal Lagoons:

The Wharekahika estuary and associated coastal lagoon has a high SSWI rating and is a Priority One (nationally important) RAP in the Pukeamaru Ecological District PNA Survey Report; for its estuarine and freshwater flora; a high diversity of representative vegetation types associated with the lagoon, and fauna; the presence of nationally threatened wildlife – NZ Dotterel (*Charadrius obscurus*), Banded Dotterel (*Charadrius bicinctus bicinctus*) and other coastal birds. The adjacent dunelands support the largest population of the rare plant Pingao (*Desmoschoenus spiralis*) in the region (Regnier, C., 1988). The site has a rating of national significance on the WERI index for its diverse avifauna.

Marine Mammals and Birds:

The Wharekahika estuary and associated coastal lagoon has a high SSWI rating for its estuarine and freshwater lagoon habitat and wildlife species list it supports including rare and endangered and migratory species: NZ Dotterel (*Charadrius obscurus*), Banded Dotterel (*Charadrius bicinctus bicinctus*), White Heron (*Egretta alba modesta*) and large numbers of waders including Pied Stilts (*Himantopus himantopus*) and Variable Oyster Catcher (*Haematopus unicolour*), waterfowl and field birds (Rasch, G., 1989).

Ecosystems, Flora and Fauna habitats:

The Wharekahika estuary and associated coastal lagoon supports a high diversity of representative vegetation types including intertidal species; *Juncus maritimus*, *Triglochin striatum*, *Cyprus ustulatus* and *Scirpus cernuus*, Raupo and *Scirpus medianus*. The adjacent sand dune area supports the largest population of the rare plant Pingao (*Desmoschoenus spiralis*) in the region (Regnier, C., 1988).

The Wharekahika estuary and associated coastal lagoon has a high SSWI rating for its estuarine and freshwater lagoon habitat and wildlife species list it supports including rare and endangered and migratory species: NZ Dotterel (*Charadrius obscurus*), Banded Dotterel (*Charadrius bicinctus bicinctus*), White Heron (*Egretta alba medesta*) and large numbers of waders including Pied Stilts (*Himantopus himantopus*) and Variable Oyster Catcher (*Haematopus unicolour*), waterfowl and field birds (Rasch, G., 1989). Whitebait (*Galaxias maculatus*) spawn in the upper estuary (Hogan, K., pers. obs.).

Appendix 3.3

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area between Map Ref Z14 777.898 in the West and Map Ref Z14 780.875 in the East, contained by the line of Mean High Water Springs, including upstream of the Wharekahika River to the effective Coastal Marine Area boundary, and a line running parallel to the shore following the 5 metre depth contour.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitat.
- ▶ Maintenance of a high standard of water quality.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater, estuarine and marine ecosystems.
- ▶ Preservation of the natural character of the coastal environment.

Appendix 3.3

SITE NUMBER: 05-015

Site Name:	Karakatuwhero River Estuary
NZMS 262:	(1:250,000) map series
Sheet No:	Z14
Grid Reference:	15.841
Map:	2A.5

Locality Description and Site Summary:

Located two kilometres West of Te Araroa township, this site comprises the Karakatuwhero River Estuary, associated coastal lagoons and the beach area. The site has significant ecological, fauna and flora and wildlife values and also significant landscape and landform values.

Wetlands, Estuaries, Coastal Lagoons:

The Karakatuwhero River mouth passes through a shingle dune system comprising a series of parallel shingle dune ridges and hollows that represent old shorelines, which is a unique landform in the ecological district (Regnier, C., 1988). The river is very unstable and likely to migrate 1.5km either side of its present position (Gibb, J., 1981). The river mouths periodic migration has formed several coastal lagoons and an estuary. The site is a priority one (nationally important) Recommended Area for Protection in the Pukeamaru Ecological District for its unique coastal landform and the flora and fauna values in the coastal lagoons and estuary (Regnier, C., 1988). The site has a national significance rating for its avifauna values.

Marine Mammals and Birds:

Both the freshwater and the saline wetlands have high wildlife values with the lagoon at the karakatuwhero River mouth supporting the highest number of nesting coastal birds and wading birds in the Ecological District. Species include nationally threatened species; NZ Dotterel (*Charadrius obscurus*) and Banded Dotterel (*Charadrius bicinctus bicinctus*), waterfowl and field birds (Rasch, G., 1989).

Ecosystems, Flora and Fauna Habitats:

The Karakatuwhero coastal wetlands comprise the most extensive salt meadow in the Ecological District. Coastal herbs include the threatened *Mazus pumilio*, and other uncommon species such as *Lilaeopsis sp.*, *Myriophyllum propinquun* and *Rununculus acaulis*. Whitebait (*Galaxia maculatus*) spawn in the estuary (Hogan K., pers. obs.).

Scenic Values:

The best representative example of a coastal landscape of its type in the region (Smale S., 1993).

Coastal Landforms and Associated Processes:

The shingle dune system is a unique landform in the Pukeamaru Ecological District comprising a series of parallel shingle dune ridges and hollows that represent old shorelines.

Appendix 3.3

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area between Map Ref. Z14 805.853 in the West to Map Ref. Z14 826.834 in the East, contained by the line of Mean High Water Springs, including upstream to the effective Coastal Marine Area Boundary, and a line running parallel to the shore along the 5 metre water depth contour.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of a high standard of water quality.
- ▶ Maintenance of the ecological linkages between the terrestrial, freshwater, estuarine and marine ecosystems.
- ▶ Protection of the significant landform and landscape values at the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-016

Site Name:	Kakanui
NZMS 262:	(1:250,000) map series
Sheet No:	Z14
Grid Reference:	855.830
Map:	2A.5

Locality Description and Site Summary:

An outstanding coastal landscape located immediately east of the Te Araroa township. Significant terrestrial ecological values adjacent.

Ecosystems, Flora and Habitat:

The most extensive marine terrace system in the Pukeamaru Ecological District contains some unique and some best examples of landform and vegetation types in the District. A category one Recommended Area for Protection in the Pukeamaru Ecological District PNZ Survey Report (Regnier, C., 1988).

Scenic Values:

An outstanding coastal landscape and the best representative example of a coastal landscape type in the region (Smale, S., 1993).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs and a line running parallel to it, one nautical mile off-shore, between the East Bank of the Awarere River at Map Ref. Z14 846.827 in the West, and Maruhou Point at Map Ref. Z14 865.827 in the East.

Desired Environmental Outcomes:

- ▶ Protection of the outstanding natural features and coastal landscape at the site.
- ▶ Preservation on the natural character of the coastal environment.

Appendix 3.3

SITE NUMBER: 05-017

Site Name:	East Island/Whangaokeno
NZMS 262:	(1:250,000) map series
Sheet No:	Z14
Grid Reference:	0.17.750
Map:	2A.7

Locality Description and Site Summary:

The Coastal Marine Area around East Island and adjoining the East Cape. The site has significant ecological, fauna and flora and wildlife values and is located adjacent to a National Wildlife Reserve which is also a significant regional landform.

Protected Areas:

Whangaokeno/East Island is the largest island in the Pukeamaru Ecological District and has high botanical values, and very high wildlife values notably the presence of breeding colonies of seabirds. The island is a gazetted Wildlife Refuge Reserve (Regnier, C., 1988). Extensive intertidal and subtidal reef systems occur around the island which are utilised as habitat by the wildlife. The reefs are proposed as a site for Marine Reservation (MAFISH, 1987).

Marine Mammals and Birds:

A gazetted Wildlife Refuge Reserve. A priority one (nationally significant) RAP in the Pukeamaru Ecological District Survey report for its high botanical and very high wildlife values. The largest island (8 Hectares) in the Pukeamaru Ecological District. Has very high wildlife values, especially the presence of breeding colonies of seabirds; Fluttering Shearwater (*Puffinus gavia gavia*), Sooty Shearwater (*Puffinus griseus*), Grey-faced Petrel (*Pterodroma macroptera*), Black Petrel (*Pterodroma nigripennis*), White-faced Storm Petrel (*Pelagodroma marina maoriana*), and Northern Blue Penguins (*Eudyptula minor iredalai*) (Regnier, C., 1988)

Ecosystems, Flora and Fauna:

The largest island (8 Hectares) in the Pukeamaru Ecological District. It has very high wildlife values, especially the presence of breeding colonies of seabirds; Fluttering Shearwater (*Puffinus gavia gavia*), Sooty Shearwater (*Puffinus griseus*), Grey-faced Petrel (*Pterodroma macroptera*), Black Petrel (*Pterodroma nigripennis*), White-faced Storm Petrel (*Pelagodroma marina maoriana*), and Northern Blue Penguins (*Eudyptula minor iredalai*). The botanical values on the island include the presence of the rare plant *Plantago picta* (Regnier, C., 1988). Extensive intertidal and subtidal reef systems occur around the island the biology of which is yet to be studied in detail. The reefs are utilised as habitat by the island's wildlife (Hogan, K., pers. obs).

Coastal Landforms and Associated Processes:

The largest island (8 hectares) in the Pukeamaru Ecological District. A gazetted Wildlife Refuge Reserve. A priority one (nationally significant) RAP in the Pukeamaru Ecological District Survey report for its high botanical and very high wildlife values (Regnier, C., 1988).

Appendix 3.3

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs on the mainland between Map Ref. Z14 994.756 in the North, and the Tunanui Stream in the South at Map Ref. Z14 991.745, and a line located one nautical mile East of East Island running parallel to the shore of the island; confined in the North by a straight line running from Map Ref. Z14 994.756 to intersect the Northern most part of the Eastern Boundary line; confined in the South by a straight line running from Map Ref. Z14 991.745 to intersect with the southernmost part of the Easter boundary line.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous flora and fauna, and their habitats.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater and marine ecosystems.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-018

Site Name:	Waiapu Estuary
NZMS 260:	(1:250,000) map series
Sheet No:	Z15
Grid Reference:	925.655
Map:	2A.8

Locality Description and Site Summary:

Located 15 km south of East Cape, the Waiapu River mouth has an estuary and coastal lagoon system which has significant fauna and wildlife values.

Wetlands, Estuaries, Coastal Lagoons:

The estuary and coastal lagoon provide a stepping stone for migratory bird species along the coastal tract (Rasch, G., 1989).

Marine Mammals and Birds:

The river estuary has a high SSWI rating for its wildlife habitat value, large numbers of wildfowl, coastal birds, migratory birds and the presence of threatened species Banded Dotterel (*Charadrius bicinctus bicinctus*) (Rasch, G., 1989).

Ecosystems, Flora and Fauna Habitats:

The river estuary has a high SSWI rating for its wildlife habitat value, large numbers of wildfowl, coastal birds, migratory birds and the presence of threatened species Banded Dotterel (*Charadrius bicinctus bicinctus*) (Rasch, G., 1989).

Coastal Landforms and associated Processes:

The Waiapu River is the major source of beach material from the Waiapu River mouth, north to Matakaoa Point at Hicks Bay (Gibb, J., 1981). The River mouth has an estuary and coastal lagoons maintained by the presence of a persistent shingle/cobble spit at the river mouth. WERI index rating of regional importance for catchment authority values (WERI).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs from the river mouth upstream along both banks to the effective Coastal Marine Area Boundary on the river.

Desired Environmental Outcome:

- ▶ Protection of communities and associations of all indigenous flora and fauna, and their habitats.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater, estuarine and marine ecosystems.
- ▶ Preservation of the natural character of the coastal environment.

Appendix 3.3

SITE NUMBER: 05-019

Site Name:	Waiapu Estuary
NZMS 260:	(1:250,000) map series
Sheet No:	Z16
Grid Reference:	810.350
Map:	2A.12; 2A.13

Locality Description and Site Summary:

Located on the headland between Waipiro Bay in the North and Tokomaru Bay in the South. This site contains the only intact coastal forest catchment area between East Cape and Cape Palliser. The site is now reserved, part as a Conservation Area and part as a forest heritage acquisition. This site represents a unique opportunity to put in place a land-sea reservation continuum on the East Coast. The site has unique terrestrial ecological, fauna and flora values and representative marine ecological values and significant landscape values.

Protected Areas:

The 77 Hectare Koutunui Head Conservation Area and the adjacent 203 Hectare Waimahuru Bay Forest Heritage Fund Acquisition together comprise a site of very high or exceptional ecological significance. The site is the largest catchment system that is essentially all in indigenous forest on the East Coast of the North Island from East Cape to Cape Palliser. A regionally and nationally rare diverse coastal forest. The adjacent intertidal and subtidal habitats provide a rare opportunity for a land/marine continuum of protection of a down shore succession of marine habitats representative of marine habitats in the area including the marine habitat successions around an off-shore island.

Ecosystems, Flora and Fauna Habitats:

Very high or exceptional terrestrial ecological values in the adjacent catchment area, the largest catchment system that is essentially all in indigenous forest on the East Coast of the North Island from East Cape to Cape Palliser, a regionally and nationally rare and diverse coastal forest (Ward, C., 1991). A rare opportunity for a land/marine continuum of protection of a down shore succession of marine habitats representative of marine habitats in the area including the marine habitat successions around an off-shore island. The marine habitats have not been studied in detail. It is known that the intertidal rocky shore succeeds to a reef system which drops steadily away to a sediment bottom at 25 metres water depth. Around the Island the marine habitats drop steeply away to the sediment substrate (Hogan, K., 1991).

Scenic Values:

The only intact representative example of a forested coastal catchment landscape in the region (Smale, S., 1993).

Appendix 3.3

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs between Map Ref. Z16 813.365 near Koutunui Point in the North to Map Ref. Z16 813.334 at Te Upoko in the South; and by a straight line running due East from Map Ref. Z16 813.365 near Koutunui Point, to Map Ref. Z16 830.365, then due South to Map Ref. Z16 830.334 then due West to Map Ref. Z16 813.334 at Te Upoko.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater and marine ecosystems.
- ▶ Protection of the significant natural features and coastal landscape values at the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-020

Site Name:	Tokomaru Bay Wharf
NZMS 260:	(1:250,000) map series
Sheet No:	Z16
Grid Reference:	794.300
Map:	2A.13

Locality Description and Site Summary:

The historic wharf structure at Tokomaru Bay.

Historic Values:

The Tokomaru Bay Wharf is classified as a historical significance by the Historic Places Trust. The Wharf was built together with the Tokomaru Bay Freezing Works in 1909. The wharf handle 400 coastal shipping movements per year between 1913 and 1916 (Mackey, A.).

Boundary of Site of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs at the landward end of the structure, and by a line located 5 metres from, and running parallel to, the outermost part of the entire structure.

Desired Environmental Outcomes:

- ▶ Preservation of the Historic and Cultural values at the site.

Appendix 3.3

SITE NUMBER: 05-021

Site Name:	Anaura Bay
NZMS 260:	(1:250,000) map series
Sheet No:	Z16
Grid Reference:	755.145
Map:	2A.15

Locality Description and Site Summary:

Located 50 km north of Gisborne, Anaura Bay is a site of national historic and cultural importance. The site is located adjacent to a national scenic reserve and has significant coastal landscape values.

Protected Areas:

The Anaura Bay Scenic Reserve extends to the sea shore at the Northern end of the Bay. The Reserve is the coastal end of a rare montane-coastal vegetation succession in the Waipapu Ecological District. The Anaura Bay Walkway traverses the Scenic Reserve and the adjacent Waipare Farm settlement.

Scenic Values:

An outstanding coastal landscape, and the best representative example of an East Coast sandy bay in the Region (Smale, S., 1993).

Historic Values:

Cooks Landing Place 1789 (NZMS 260 Z16 Tokomaru Bay). The Historic Places Trust erected a monument on the beach at Anaura Bay to commemorate Cook's visit on 23 October 1769. The site is historically important as it is the first place a comprehensive written description of Maori horticulture was undertaken.

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs between the Northern headland of the Bay at Map Ref. Z16 771.178 and the Southern headland of the Bay at Map Ref. Z16 766.134, and a line running parallel to it, one nautical mile from shore.

Desired Environmental Outcomes:

- ▶ Protection of the Historical and cultural values at the site.
- ▶ Protection of the outstanding and significant natural features and coastal landscape at the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-022

Site Name:	Uawa River Estuary
NZMS 260:	(1:50,000) map series
Sheet No:	Z17
Grid Reference:	738.000
Map:	2A.17

Locality Description and Site Summary:

The Uawa River Estuary is located at Tolaga Bay. The site has significant ecological, fauna and flora and wildlife values.

Protected Areas:

Much of the estuarine margins of the Uawa River Estuary are zoned in the Transitional (Cook County) District Plan as Conservation zones to protect their natural values.

Wetlands, Estuaries, Coastal Lagoons:

The Uawa Estuary is rated moderate/high (SSWI) for its habitat value; a rush sedge estuarine wetland, mudflats and adjacent dunelands and for its wildlife values; its diverse wader and field species including threatened species Banded Dotterel (*Charadrius bicinctus bicinctus*) and Reef Heron (*Egretta sacra sacra*) (Rasch, G., 1989). The Uawa River supports one of the better whitebait fisheries in the Gisborne Region. Whitebait (*Charadrius bicinctus bicinctus*) and Reef Heron (*Egretta sacra sacra*) (Rasch, G., 1989). There are few habitats for wading species in the ecological district hence the importance of this site. The Uawa River supports one of the better whitebait fisheries in the Gisborne Region. Whitebait (*Galaxias maculatus*) spawning areas have been reported in the upper reaches of the estuary (Bassett, A., pers com.).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs at the mouth of the Uawa River upstream along both banks to the Waimaunu Stream confluence.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of a high standard of water quality in the estuary.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater and marine ecosystems.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-024

Site Name:	Cooks Cove
NZMS 260:	(1:50,000) map series
Sheet No:	Z17
Grid Reference:	745.997
Map:	2A.17; 2A.18

Locality Description and Site Summary:

Located on the Southern headland of Tolaga Bay, this site has significant ecological, fauna and flora and wildlife values, significant historic and cultural values and significant coastal landscape values.

Marine Mammals and Birds:

Mitre Rocks and Pourewa Island have high and moderate/high SSWI ratings, respectively, as nesting areas for breeding populations of common seabirds and the presence of muttonbird burrows (Rasch, G., 1989).

Ecosystems, Flora and Fauna Habitats:

Pourewa Island is one of only two islands in the Waiapu Ecological District which support tall shrub or forest vegetation. The presence of *Paratrophis banksii* is notable (Daniel, L., 1985).

Scenic Values:

The Cooks Cove National Walkway is the most popular walk in the Gisborne area. The site encompasses seascapes considered remarkable by Cook and Banks in 1769, including the 'hole in the wall' described by Banks "as an extraordinary natura curiosity". An outstanding coastal landscape which encompasses the sea cliffs east of Tolaga Bay, Pourewa Island, Mitre Rocks and Cook's Cove (Smale, S., 1993_).

Historic Values:

Historic Cooks Landing Site. The Historic Places Trust erected a monument here to commemorate Cook's visit on 23 October 1769. The Historic significance of the site is due to Cook spending six days with the local people learning their customs and country. Banks undertook botanical studies and collected specimens of flora and fauna.

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs between Map Ref. Z17 750.997 in the North along the coast to Map Ref. Z17 760.982 in the South, and a line running parallel to it, one nautical mile off-shore.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater and marine ecosystems.
- ▶ Protection of the Historical values at the site.
- ▶ Protection of the significant natural features and outstanding coastal landscape at the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-023

Site Name:	Tolaga Bay Wharf
NZMS 260:	(1:50,000) map series
Sheet No:	Z17
Grid Reference:	745.997
Map:	2A.17

Locality Description and Site Summary:

The Historic Wharf Structure is located south of Tolaga Bay.

Historic Values:

The Tolaga Bay Wharf was built between 1926 – 1929 at a cost of £90,000 to accommodate coastal shipping. It is the longest ferro-concrete wharf in the country, at 660 metres. It was closed to shipping in 1967. The wharf is classified as of historic significance (category II) by the Historic Places Trust (Bain, P., 1993).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs at the landward end of the structure, and by a line located 5 metres from, and running parallel to the outermost part of the entire structure.

Desired Environmental Outcomes:

- ▶ Preservation of the Historic and Cultural values at the site.

Appendix 3.3

SITE NUMBER: 05-025

Site Name:	Waiomoko River Estuary
NZMS 260:	(1:50,000) map series
Sheet No:	Z18
Grid Reference:	647.787
Map:	2A.20

Locality Description and Site Summary:

Located at Whangara, 20 km North of Gisborne, this site comprises the Waiomoko River Estuary which has significant ecological, flora and fauna and wildlife values.

Marine Mammals and Birds:

The Estuary has a moderate SSWI rating for its wildlife values; the presence of waders, Pied Stilt (*Himantopus himantopus leucocephalus*), Variable Oyster Catcher (*Haematopus unicolor*), waterfowl and nesting threatened species, NZ Dotterel (*Charadrius obscurus*), Banded Dotterel (*Charadrius bicinctus bicinctus*) (Rasch, G., 1989).

Ecosystems, Flora and Fauna Habitats:

A 10 hectare estuarine system with associated dunes, mudflats and estuarine vegetation. The Estuary has a moderate SSWI rating for its wildlife values; the presence of waders, Pied Silt (*Himantopus himantopus leucocephalus*), Variable Oyster Catcher (*Haematopus unicolor*), waterfowl and nesting threatened species, NZ Dotterel (*Charadrius obscurus*), Banded Dotterel (*Charadrius bicinctus bicinctus*), (Rasch, G., 1989). The dunes at the Waiomoko River mouth rated 12 (highest score on the East Coast) in an inventory of North Island dune vegetation for its size intactness and the presence of the vulnerable plant *Austrofestuca littoralis* (Partridge, T., 1990). The dune system is of high botanical conservation value for its intactness and species diversity and the presence of endangered plants (Beadle, S., 1990).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs across the river mouth and extending upwards along both banks to the effective Coastal Marine Area Boundary.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater, estuarine and marine ecosystems.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-026

Site Name:	Ariel Bank
NZHO Chart:	Cape Runaway to Table Cape
Sheet No:	N.Z. 55
Grid Reference:	178°18'E. 38°44'S
Map:	1

Locality Description and Site Summary:

The Ariel Bank is located 8.6 nautical miles East South East of Tatapouri Boat Ramp which is 10 km North of Gisborne. The site is one of a smaller number of, and by far the largest, hard-rock reef systems located in open water off the Gisborne Coast. It has significant ecological and fauna and flora values and is recognised for the quality of its underwater scenery.

Ecosystems, Flora and Fauna Habitats:

An offshore (806 nautical mile from Tatapouri) hard rock reef system which rises from the seabed at 40 metres to within 7.6 metres of the surface. Located in relatively calm off shore waters the reef has a reputation of supporting a diverse and abundant assemblage of benthic and demersal species, unique to the region, which are yet to be surveyed in detail (Quirke, J., 1993).

Scenic Values:

The underwater scenery of the Ariel Reef is reputed to be the best in the Gisborne area. It is equal to the Lottin Point underwater scenery which has a nationally significant reputation (Quirke, J., 1993).

Coastal Landforms and Associated Processes:

The only significant hard rock reef system off the Gisborne Coast.

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area of the Ariel Bank located above the 40 metre depth contour line, as shown or indicated on NZHGO Chart NZ55.

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Protection of the outstanding underwater scenery at the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-027

Site Name:	Wherowhero/Waipaoa Estuaries
NZMS 260:	(1:50,000) map series
Sheet No:	Y 18
Grid Reference:	390.620
Map:	2A.24; 2A.25; 2A.26

Locality Description and Site Summary:

Located at the south eastern end of Poverty Bay, the site comprises the estuaries of the Waipaoa River and the adjacent Wherowhero Stream and associated coastal lagoons. The site has significant ecological, fauna and flora and wildlife values.

Wetland, Estuaries, Coastal Lagoons:

The Wherowhero estuary is a 200 hectare coastal lagoon estuary. An associated 30 hectare tidal mudflat occurs at the mouth of the Waipaoa River. The site is a Priority One (nationally important) RAP in the Turanga Ecological District PNA Survey Report. The site includes the estuarine lagoon and adjacent dunelands and spits. The natural values at the site include the range of native vegetation types such as *Ruppia* sp. Herbfield, Glasswort herbfield, sea rush tussockland, *Bolboschoenus* sp. Sedgeland and Spinifex grass land: and the wildlife values; Wherowhero Lagoon has a high SSWI rating for the presence of 34 species of coastal waders, migrating and shorebirds including the endangered White Heron (*Ardea alba modesta*) and the threatened Wrybill (*Anarhynchus frontalis*), Caspian Turn (*Hydroprogne caspia*), Banded Dotterel (*Charadrius bicinctus bicinctus*), NZ Dotterel (*Charadrius obscurus*). The Waipaoa River mouth has an SSWI rating of moderate/high (Clarkson, B., 1991).

Marine Mammals and Birds:

The Wherowhero Lagoon has a high ranking as a Site of Special Wildlife Interest. Thirty four species of coastal waders, migrating birds and shore birds are present including the endangered White Heron (*Ardea alba modesta*) and the threatened Wrybill (*Anarhynchus frontalis*), Caspian Turn (*Hydroprogne caspia*), Banded Dotterel (*Charadrius bicinctus bicinctus*), NZ Dotterel (*Charadrius obscurus*). Other uncommon birds include the Golden Plover (*Pluvialis fulva*), Royal Spoonbill (*Platalea regia*), Eastern Bar-tailed Godwit (*Limosa lapponica baueri*), Red-necked Stint (*canutus canutus*), (Clarkson, B., 1991). The Waipaoa River mouth has an SSWI rating of moderate/high (Clarkson, B., 1991).

Ecosystems, Flora and Fauna Habitats:

Refer to the information listed under the heading: **Wetland, Estuaries, Coastal Lagoons.**

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs from the mouth of the Waipaoa River upstream along both banks to the effective Coastal Marine Area Boundary at the Railway Bridge and all that part of the Coastal Marine Area contained by the line of Mean High Water Springs from the mouth of the Wherowhero stream upstream to the effective Coastal Marine Area Boundary.

Appendix 3.3

Desired Environmental Outcomes:

- ▶ Protection of communities and associations of all indigenous species of flora and fauna, and their habitats.
- ▶ Maintenance of a high standard of water quality.
- ▶ Maintenance of the ecological linkages between terrestrial, freshwater, estuarine and marine ecosystems.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 3.3

SITE NUMBER: 05-028

Site Name:	Whareongaonga
NZMS 260:	(1:50,000) map series
Sheet No:	Y 19
Grid Reference:	370.485
Map:	2A.27

Locality Description and Site Summary:

The Whareongaonga headland is located twelve kilometres south of Poverty Bay. The site has significant coastal landscape values.

Scenic Values:

The Whareongaonga headland, its associated intertidal reef system and the adjacent open water, is a significant natural feature on the south Gisborne coast and the best representative example of a coastal landscape of its type in the region (Smale, S., 1993).

Boundary of Area of Significant Conservation Value:

All that part of the Coastal Marine Area contained by the line of Mean High Water Springs and occurring within 1 km radius from the seaward end of the Whareongaonga headland at Map Ref. Y19 368.486.

Desired Environmental Outcomes:

- ▶ Protection of the natural features and significant coastal landscape of the site.
- ▶ Preservation of the natural character of this coastal environment.

Appendix 8

RESTRICTED COASTAL ACTIVITIES AS GAZETTED ON 5 MAY 1994

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Schedule 1 – The circumstances in which activities that have a significant or irreversible adverse effect on the coastal marine area will be made restricted coastal activities.

S1.1 Reclamations

- (a) Any activity reclaiming foreshore or seabed which is less than 1 hectare or extends less than 100 metres in all directions, including incremental reclamations connected to or part of another reclamation which was commenced or received a resource consent after the (gazettal date), and the sum of the existing and proposed reclamations do not exceed these dimensions is not a restricted coastal activity.
- (b) Any activity reclaiming foreshore or seabed which:
- I. is equal to or greater than 1 hectare but less than or equal to 2 hectares, or extends 100 or more metres up to or equalling 300 metres linear in any direction (or which is an incremental reclamation connected to, or part of, another reclamation which was commenced or received a resource consent after (gazettal date), and the sum of the existing and proposed reclamations are within these dimensions);
 - II. which is specified in the relevant operative or proposed regional coastal plan as a discretionary activity; and
 - III. the plan contains the criteria for, or the permissible locations of, reclamations, and the permissible adverse effects and the usages of any areas so reclaimed;
- is not a restricted coastal activity.
- (c) Except as in S1.1 (a) or (b) above, any activity reclaiming foreshore or seabed which:
- I. equals or exceeds 1 hectare;
 - II. extends 100 or more metres in any direction; or
 - III. is an incremental reclamation connected to, or part of, another reclamation which;
 - was commenced or received a resource consent after (gazettal date); and
 - the sum of the existing and proposed reclamations are equal to or exceed the dimensions in (i) and (ii); and
- is a restricted coastal activity.

S1.2 Structures which impound or effectively contain the coastal marine area

- (a) Any activity involving the erection of a structure or structures which:
- I. will impound or effectively contain less than 4 hectares of the coastal marine area; or
 - II. is floating or open pile structure which can be demonstrated to not impede water flows;
- is not a restricted coastal activity.
- (b) Any activity involving the erection of a structure or structures which will:

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- I. impound or effectively contain less than 8 hectares, of the coastal marine area;
- II. which is specified in the relevant operative or proposed regional coastal plan as discretionary activity; and
- III. the plan defines or provides the criteria for determining:
 - where it would be permissible to locate any such structure or structures; and
 - the materials to be used in the construction of any structure or structures;
 - the activities for which such structure or structures can be used; and
- IV. the plan:
 - requires consideration of the likely adverse effects of the structure or structures; and
 - defines, or provides the criteria for determining, the limits on likely adverse effects of the structure or structures;

is not a restricted coastal activity.

- (c) Except as provided for in S1.2(a) and (b) above, any activity involving the erection of a structure or structures which will impound or effectively contain 4 hectares or more of the coastal marine area is a restricted coastal activity.

S1.3 Structures in the coastal marine area more or less parallel to mean high water springs

- (b) Any activity involving the erection of a structure or structures which:
- I. which is solid (or presents a significant barrier to water or sediment movement), and when established on the foreshore or seabed extends less than 300 metres in length more or less parallel to the line of mean high water springs (including separate structures which total less than 300 metres contiguous length);
 - II. which is a submarine or sub-aqueous cable; or
 - III. which is a floating or open pile structure which can be demonstrated not to have adverse effects;

is not a restricted coastal activity.

- (b) Any activity involving the erection of a structure or structures:
- I. which are solid (or presents a significant barrier to water or sediment movement);
 - II. when established on the foreshore or seabed would extend 300 metres or more, but not more than 1000 metres, in length more or less parallel to the line of mean high water springs (including separate structures which incrementally total at least 300 metres and up to 1000 metres, contiguously);
 - III. which is specified in the relevant operative or proposed regional coastal plan as a discretionary activity; and
 - IV. for which the plan defines, or provides the criteria for determining:
 - where it would be permissible to locate any such structure or structures;

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- the materials to be used in the construction of any structure or structures;
- the activities for which such structure or structures can be used; and

V. for which the plan:

- requires consideration for the likely adverse effects of the structure or structures; and
- defines, or provides, the criteria for determining, the limits on likely adverse effects of the structure or structures;

is not a restricted coastal activity.

(c) Except as provided for in S1.3(a) and (b) above, any activity involving the erection of a structure or structures which:

- I. are solid (or present a significant barrier to water or sediment movement); and
- II. when established on the foreshore or seabed would extend 300 metres or more in length more or less parallel to the line of mean high water springs (including separate structures which total 300 metres or more contiguous);

is a restricted coastal activity.

S1.4 Structures in the coastal marine area oblique or perpendicular to mean high water springs

(a) Any activity involving the erection of a structure or structures which:

- I. which is solid (or present a significant barrier to water or sediment movement), and is sited obliquely or perpendicular in horizontal projection to the line of mean high water springs in the coastal marine area, and is in horizontal projection less than 100 metres; or
- II. which is a submarine or sub-aqueous cable;

(b) Any activity involving the erection of a structure or structures:

- I. which is solid (or presents a significant barrier to water or sediment movement);
- II. which is sited obliquely or perpendicular to the line of mean high water springs in the coastal marine area;
- III. which in horizontal projection is not more than 1000 metres in length;
- IV. which is specified in the relevant operative or proposed regional coastal plan as a discretionary activity; and
- V. for which the plan defines, or provides the criteria for determining:
 - where it would be permissible to locate any such structure or structures;
 - the materials to be used in their construction;
 - specifies the activities for which such structure or structures can be used; and

VI. for which the plan:

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- requires consideration of the likely adverse effects of the structure or structures; and
- defines, or provides the criteria for determining, the limits on adverse effects of the structure or structures;

is not a restricted coastal activity.

- (c) Except as provided for in S1.4(a) and (b) above, any activity which includes erecting a structure or structures in the coastal marine area which is:
- I. solid (or presents a significant barrier to water or sediment movement);
 - II. is sited obliquely or perpendicular in horizontal projection to the line of mean high water springs in the coastal marine area; and
 - III. is in horizontal projection 100 metres or more in length;

Is a restricted coastal activity.

S1.5 Structures in the coastal marine area used in the petroleum and chemical industry

- (a) Any activity involving the erection of structures for the storage or containment of petroleum, petroleum products, or contaminants in quantities less than or equal to 50,000 litres is not a restricted coastal activity.
- (b) Any activity involving the erection of structures for the storage or containment of any petroleum, petroleum products, or containments in quantities less than 100,000 litres and more than 50,000 litres and the relevant operative or proposed regional coastal plan specifies that the activity is a discretionary activity and defines, or provides criteria determining:
- I. where it would be permissible to locate any such structures; and
 - II. the effects of the structure

is not a restricted coastal activity.

- (c) Except as provided for in S1.5(a) and (b) above, any activity involving the erection of structures for structures for the storage or containment of any petroleum, petroleum products, or containments, in quantities greater than 50,000 litres is a restricted coastal activity.

S1.6 Disturbance of foreshore and seabed (excavate, drill, move, tunnel etc) including any removal of sand, shell or shingle

- (a) Any activity involving, in any 12-month period, disturbance of foreshore and seabed for specific purposes, including any removal of sand, shell or shingle or other material which is either:
- I. maintenance dredging;
 - II. in volumes less than or equal to 50,000 cubic metres; and extracted from areas less than 4 hectares; and extending less than 1000 metres over foreshore and seabed; or

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- III. in volumes less than 300,000 cubic metres; and extracted from areas of less than 10 hectares; and extending less than 10,000 metres over foreshore and seabed: and
 - is specified in any operative or proposed regional coastal plan as a discretionary activity; and
 - the plan defines or provides the criteria which specifies the location where the removal can be carried out; and
 - specifies when the activity can be undertaken; and
 - specifies conditions to control any adverse effects of any removal or disturbance;

is not a restricted coastal activity.

- (b) Except as in S1.6(a) above any activity involving, any 12 month period, disturbance of foreshore and seabed for specific purposes, including any removal of sand, shell or shingle:
 - I. in volumes greater than 50,000 cubic metres;
 - II. extracted from areas equal to or greater than 4 hectares; or
 - III. extending 1000 metres or more over foreshore and seabed;is a restricted coastal activity.

For the purposes of this clause, **maintenance dredging** means any dredging of the bed of the sea necessary to maintain water depths to previously approved levels, for the safe and convenient navigation of vessels, in navigation channels and at berthing and mooring facilities, including marina developments.

S1.7 Depositing substances in the coastal marine area

- (a) Any activity involving the depositing of any material on the foreshore and seabed which involves quantities less than or equal to 50,000 cubic metres at a site in the coastal marine area in any 12 month period is not a restricted coastal activity.
- (b) Any activity involving the depositing of any material on the foreshore and seabed:
 - I. which is specified in an operative or proposed regional coastal plan as a discretionary activity;
 - II. for which the plan defines or provides the criteria for determining:
 - the location where the activity can be carried out;
 - the time during which the activity can be carried out; and
 - III. for which the plan:
 - the location where the activity can be carried out;
 - the time during which the activity can be carried out; andis not a restricted coastal activity.

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- (c) Except as provided for in S1.7(a) and (b) above, any activity involving the depositing of any material on the foreshore or seabed in quantities greater than 50,000 cubic metres in any 12 month period in the coastal marine area is a restricted coastal activity.

S1.8 Exotic plants in the coastal marine area

Any activity involving the introduction of any exotic plant species to the coastal marine area is a restricted coastal activity, except where that plant is already present in an area and an operative or proposed regional coastal plan specifies that the planting of it is a discretionary activity.

S1.9 Exclusive occupation of the coastal marine area

Any activity involving occupation of the coastal marine area which:

- (a) Would exclude or effectively exclude public access from areas of the coastal marine area over 10 hectares (except where such exclusion is required in commercial port areas for reasons of public safety or security);
- (b) Would exclude or effectively exclude the public from more than 316 metres along the length of the foreshore; or
- (c) Would involve occupation or use of areas greater than 50 hectares of the coastal marine area and such occupation or use would restrict public access to or through such areas;

is a restricted coastal activity.

S1.10 Discharges to the coastal marine area

- (a) Any discharge of human sewage to the coastal marine area, except from vessels, which has not passed through soil or wetland, shall be restricted coastal activity.
- (b) Any discharge to the coastal marine area in respect of which the applicant may desire to rely on section 107(2)(a) shall be a restricted coastal activity.