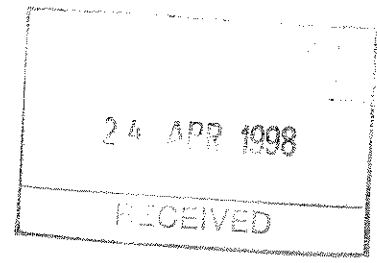


On 6.6.98



SOUTHERN ENVIRONMENTAL ASSOCIATION (WELLINGTON) INCORPORATED

C/- 15 High Street
Island Bay, Wellington
Phone 0-4-38-38-109, 0-4-387-3131
Fax 0-4-387-2639

22 April 1998

TO: Department of Conservation, Wellington (attention: John Sawyer)

LIST OF INDIGENOUS VASCULAR PLANT SPECIES AND PRELIMINARY LIST OF ANIMAL SPECIES IDENTIFIED IN THE VALLEYS LOCATED ABOVE THE HIGH WATERFALL ON THE STREAM LEADING TO WHARE-RAUREKAU* ON WELLINGTON SOUTH COAST (Map Grid Reference @ R27, R28 & Pt. Q27 554833)

CONTENTS

PAGE(S)

| | | |
|-----|--|----|
| 1. | Notes about the site | 2 |
| 2. | The sources of information for this report | 2 |
| 3. | Monocotyledon trees and shrubs | 3 |
| 4. | Dicotyledon trees and shrubs | 3 |
| 5. | Monocotyledon climbing plants | 4 |
| 6. | Dicotyledon climbing plants | 5 |
| 7. | Ferns | 6 |
| 8. | Monocotyledon herbs | 7 |
| 9. | Dicotyledon herbs | 8 |
| 10. | Grasses, sedges and rushes | 9 |
| 11. | Summary of notable features of vegetation | 10 |
| 12. | Preliminary list of animal species | 11 |

1. NOTES ABOUT THE SITE:

- a. The site consists of two valleys which are located above the high waterfall on the unnamed stream which leads to *Whare-Raurekau* on Wellington's South Coast. Each of the valleys above the waterfall contains a separate tributary of the main stream.
- b. G.L. Adkin described *Whare-Raurekau* as an ancient Maori site located on the coast between *Owhiro Bay* and *Pariwhero* (Red Rocks), at the base of a stream. (*Source: pages 103 and 123 of The Great Harbour of Tara by G. Leslie Adkin (Whitcombe and Tombs, 1959).*)
- c. Today several private baches are located at *Whare-Raurekau*. These are the only baches between *Owhiro Bay* and *Pariwhero* (Red Rocks).
- d. Both of the site visits which resulted in this report were made by walking through the catchment of *Hape Stream* (also known as *Spooky Creek*) and walking down the back of one of the valleys. The valleys join at their base just above the high waterfall.
- e. The site is presently owned by *Milburn New Zealand Limited (MNZL)*, although fortunately the site has not been quarried. *Wellington City Council is presently considering the possible purchase of all of MNZL's land in the area, as part of a proposed agreement for the termination of quarrying on the South Coast. Council acquisition of the MNZL land would be a very positive move, in that it would enable permanent protection to be given to the important indigenous ecosystems of this particular site.*

2. THE SOURCES OF INFORMATION FOR THIS REPORT:

The ecological information contained in this report is derived from two site visits:

- a. *May 1996 site visit: Site visit by Robert Logan (Chairperson, Southern Environmental Association) on 12 May 1996 followed by expert assistance in species identification from Dr Margaret Wassilieff (ecological consultant and Secretary, Southern Environmental Association); and*
- b. *January 1998 site visit: Site visit by Robert Logan (Chairperson, Southern Environmental Association) and David Lee (Executive member, Southern Environmental Association) on 2 January 1998.*

It would be useful for professional ecologists/botanists now to visit/study the site.

3. INDIGENOUS MONOCOTYLEDON TREES AND SHRUBS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-----------------------|----------------------------|------------------------|
| 12/05/96 R. Logan | <i>Cordyline australis</i> | Ti kouka, Cabbage tree |

4. INDIGENOUS DICOTYLEDON TREES AND SHRUBS

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-------------------------------|---|-----------------------------|
| 12/05/96 R. Logan | <i>Brachyglottis repanda</i> | Rangiora |
| 12/05/96 R. Logan | <i>Carmichaelia arborea</i> | New Zealand broom |
| 12/05/96 R. Logan | <i>Coprosma crassifolia</i> | |
| 12/05/96 R. Logan | <i>Coprosma propinqua</i> | Mingimingi |
| 12/05/96 R. Logan | <i>Coprosma propinqua</i> X <i>Coprosma robusta</i> | |
| 12/05/96 R. Logan | <i>Coprosma rhamnoides</i> | |
| 12/05/96 R. Logan | <i>Coriaria sarmentosa</i> | Tutu |
| 02/01/98 D. Lee & R. Logan | <i>Geniostoma rupestre</i> var. <i>ligustrifolium</i> | Hangehange |
| 02/01/98 D. Lee & R. Logan | <i>Griselinia littoralis</i> | Papauma |
| 12/05/96 R. Logan | <i>Griselinia lucida</i> | Puka |
| 12/05/96 R. Logan | <i>Hebe "arborea"</i> | Koromiko taranga |
| 12/05/96 R. Logan | <i>Hebe stricta</i> var. <i>atkinsonii</i> X var. <i>macroura</i> (?) | Koromiko |
| 12/05/96 R. Logan | <i>Hedycarya arborea</i> | Porokaiwhiri, Pigeonwood |

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-----------------------|--------------------------------|-----------------------|
| 12/05/96 R. Logan | <i>Leptospermum scoparium</i> | Manuka, Tea tree |
| 12/05/96 R. Logan | <i>Macropiper excelsum</i> | Kawakawa |
| 12/05/96 R. Logan | <i>Melicytus crassifolius</i> | |
| 12/05/96 R. Logan | <i>Melicytus ramiflorus</i> | Mahoe, Whiteywood |
| 12/05/96 R. Logan | <i>Myrsine australis</i> | Mapou |
| 12/05/96 R. Logan | <i>Olearia paniculata</i> | Akiraho |
| 12/05/96 R. Logan | <i>Olearia solandri</i> | Coastal tree daisy |
| 12/05/96 R. Logan | <i>Ozothamnus leptophyllus</i> | Tauhinu, Cottonwood |
| 12/05/96 R. Logan | <i>Pennantia corymbosa</i> | Kaikomako |
| 12/05/96 R. Logan | <i>Pimelea prostrata</i> | New Zealand daphne |
| 12/05/96 R. Logan | <i>Pseudopanax anomalus</i> | Whaupaku |
| 12/05/96 R. Logan | <i>Pseudopanax arboreus</i> | Whauwhau, Five-finger |
| 12/05/96 R. Logan | <i>Sophora microphylla</i> | Kowhai |
| 12/05/96 R. Logan | <i>Urtica ferox</i> | Ongaonga, Tree nettle |

5. INDIGENOUS MONOCOTYLEDON CLIMBING PLANTS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-----------------------|----------------------------|---------------|
| 12/05/96 R. Logan | <i>Freycinetia banksii</i> | Kiekie |

6. INDIGENOUS DICOTYLEDON CLIMBING PLANTS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME(S) | OTHER NAME(S) |
|----------------------------|--------------------------------|--------------------------|
| 12/05/96 R. Logan | <i>Calystegia tuguriorum</i> | Native bindweed |
| 12/05/96 R. Logan | <i>Clematis forsteri</i> | Puataua |
| 02/01/98 D. Lee & R. Logan | <i>Clematis paniculata?</i> | Puawhananga |
| 12/05/96 R. Logan | <i>Fuchsia perscandens</i> | Scrambling fuchsia |
| 12/05/96 R. Logan | <i>Metrosideros fulgens</i> | Aka, Rata vine |
| 12/05/96 R. Logan | <i>Metrosideros perforata</i> | Aka, White rata vine |
| 12/05/96 R. Logan | <i>Muehlenbeckia australis</i> | Pohuehue |
| 12/05/96 R. Logan | <i>Muehlenbeckia complexa</i> | Pohuehue |
| 12/05/96 R. Logan | <i>Parsonsia heterophylla</i> | Aka kiore, Maori jasmine |
| 12/05/96 R. Logan | <i>Rubus cissoides</i> | Tataramoa, Bush lawyer |
| 12/05/96 R. Logan | <i>Scandia geniculata</i> | Climbing aniseed |
| 12/05/96 R. Logan | <i>Tetragonia trigyna</i> | Native spinach |

7. INDIGENOUS FERNS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-------------------------------|--|--|
| 12/05/96 R. Logan | <i>Adiantum cunninghamii</i> | Puhiniu, Maidenhair fern |
| 12/05/96 R. Logan | <i>Asplenium bulbiferum</i> | Manamana, Mouku, Hen and chickens fern |
| 12/05/96 R. Logan | <i>Asplenium flabellifolium</i> | Necklace fern |
| 02/01/98 D. Lee & R. Logan | <i>Asplenium flaccidum</i> | Makawe, Hanging spleenwort |
| 12/05/96 R. Logan | <i>Asplenium hookerianum</i> (previously <i>A. colensoi</i>) | Hooker's spleenwort |
| 12/05/96 R. Logan | <i>Asplenium oblongifolium</i> | Huruhuru whenua, Shining spleenwort |
| 12/05/96 R. Logan | <i>Asplenium terrestre</i> subsp. <i>maritimum</i> | |
| 12/05/96 R. Logan | <i>Blechnum</i> sp. | Kiokio, Palm-leaf fern |
| 12/05/96 R. Logan | <i>Blechnum chambersii</i> | Rereti, Nini |
| 12/05/96 R. Logan | <i>Blechnum filiforme</i> | Panako, Thread fern |
| 02/01/98 D. Lee & R. Logan | <i>Cyathea medullaris</i> | Mamaku |
| 12/05/96 R. Logan | <i>Lastreopsis glabella</i> | |
| 12/05/96 R. Logan | <i>Paesia scaberula</i> | Matata, Hard fern, Scented fern, Ring fern |
| 12/05/96 R. Logan | <i>Pellaea calidiripium?</i> | |
| 02/01/98 D. Lee & R. Logan | <i>Pellaea rotundifolia</i> | Tarawera, Button fern |

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-------------------------------|--|---|
| 12/05/96 R. Logan | <i>Phymatosorus pustulatus</i> (previously <i>P. diversifolius</i>) | Maratata, Kowaowao, Hound's tongue fern |
| 12/05/96 R. Logan | <i>Pneumatopteris pennigera</i> | Pakauroharoha, Gully fern |
| 12/05/96 R. Logan | <i>Polystichum richardii</i> | Tutoke, Pikopiko, Coastal shield fern |
| 12/05/96 R. Logan | <i>Pteridium esculentum</i> | Rarahu, Bracken |
| 02/01/98 D. Lee & R. Logan | <i>Pteris macilenta?</i> | Titipo, Sweet brake |
| 12/05/96 R. Logan | <i>Pteris tremula</i> | Turawera, Shaking brake |
| 02/01/98 D. Lee & R. Logan | <i>Pyrrosia eleagnifolia</i> | Ngarara wehi, Leather-leaf fern |

8. INDIGENOUS MONOCOTYLEDON HERBS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-------------------------------|---|-------------------------------------|
| 12/05/96 R. Logan | <i>Astelia fragrans</i> | Kahaha |
| 12/05/96 R. Logan | <i>Libertia ixioides</i> | Mikoikoi, Tukauki, New Zealand iris |
| 12/05/96 R. Logan | <i>Phormium cookianum</i> | Wharariki |
| 02/01/98 D. Lee & R. Logan | An orchid species (<i>Pterostylis?</i>) | |

9. INDIGENOUS DICOTYLEDON HERBS:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-------------------------------|------------------------------|------------------------------------|
| 12/05/96 R. Logan | <i>Acaena anserinifolia</i> | Piripiri, Bidibidi |
| 12/05/96 R. Logan | <i>Aciphylla squarrosa</i> | Speargrass, Wild spaniard |
| 12/05/96 R. Logan | <i>Brachyglottis lagopus</i> | Coastal rock daisy |
| 12/05/96 R. Logan | <i>Craspedia uniflora</i> | Woolley-head |
| 12/05/96 R. Logan | <i>Disphyma australe</i> | Horokaka, Native ice plant |
| 12/05/96 R. Logan | <i>Haloragis erecta</i> | |
| 12/05/96 R. Logan | <i>Hydrocotyle moschata</i> | |
| 12/05/96 R. Logan | <i>Lagenifera pumila</i> | Papataniwhaniwha |
| 12/05/96 R. Logan | <i>Leptinella squalida</i> | |
| 12/05/96 R. Logan | <i>Linum monogynum</i> | Rauhuia, New Zealand linen flax |
| 12/05/96 R. Logan | <i>Lobelia anceps</i> | |
| 12/05/96 R. Logan | <i>Oxalis</i> sp. | |
| 02/01/98 D. Lee & R. Logan | <i>Plantago</i> sp. | |
| 12/05/96 R. Logan | <i>Stellaria media</i> | |
| 12/05/96 R. Logan | <i>Wahlenbergia</i> sp. | Harebell |

10. INDIGENOUS GRASSES, SEDGES AND RUSHES:

| DATE FIRST IDENTIFIED | SCIENTIFIC NAME | OTHER NAME(S) |
|-----------------------|--------------------------|----------------|
| 12/05/96 R. Logan | <i>Carex geminata</i> | |
| 12/05/96 R. Logan | <i>Cortaderia toetoe</i> | Toetoe |
| 12/05/96 R. Logan | <i>Luzula banksiana</i> | |
| 12/05/96 R. Logan | <i>Poa anceps</i> | |
| 12/05/96 R. Logan | <i>Poa cita</i> | Silver tussock |

11. SUMMARY OF NOTABLE FEATURES OF VEGETATION

Some of the more notable features of the site's vegetation include the following:

- a. In damper areas:
 - i. Mature stands of species such as pigeonwood (*Hedycarya arborea*), puka (*Griselinia lucida*), and papauma (*Griselinia littoralis*); and
 - ii. Relatively large (apparently quite old) patches of kiekie (*Freycinetia banksii*).
- b. On a drier hill side within the "true right" valley: A mature stand of akiraho (*Olearia paniculata*), tree hebe (*Hebe "arborea"*), mapou (*Myrsine australis*), and mahoe (*Melicytus ramiflorus*). *This stand appears to be several decades old. (It may have been present as long ago as 1946 if the Lands and Survey Department map dating from that year is any accurate indication.)*
- c. Obvious gradual colonisation of *Coprosma propinqua*-dominated scrubland by species such as *Hebe "arborea"* and *Pennantia corymbosa*.
- d. Seedlings, but apparently no adult trees, of *Pseudopanax arboreus* - a fact which suggests that this species may be spreading into the valleys as a result of bird droppings.
- e. Healthy areas of *Scandia geniculata* and *Fuchsia perscandens*, often intertwined.
- f. A large and healthy patch of *Craspedia uniflora* directly above the high waterfall. *This was in full bloom at the time of the survey in 1998.*
- g. Large numbers of *Aciphylla squarrosa* in the *uniflora* var. *scandens* sys.
- h. An absence of *Myoporum laetum* (ngaio). *Scandis?*
- i. Relatively few non-indigenous plants, with *Scandia* which tends to be restricted to the upper levels of the valleys. Within the regenerating forest, there is a total dominance of indigenous species. One barberry bush and one karo seedling were noticed high up the "true right" valley on 02/01/98.

12. PRELIMINARY LIST OF ANIMAL SPECIES

| DATE FIRST IDENTIFIED | ANIMAL | NOTES |
|-------------------------------|---|---|
| INSECTS | | |
| 02/01/98 D. Lee & R. Logan | Bassaris gonerilla (Red Admiral butterfly) | The presence of this species is probably related to the <i>Urtica ferox</i> growing in the valleys. |
| 02/01/98 D. Lee & R. Logan | Dragonfly | Some very large dragonflies were seen on 02/01/98. |
| 02/01/98 D. Lee & R. Logan | <i>Lycaena</i> sp. (indigenous copper butterfly) | A large number of copper butterflies were seen on 02/01/98. This is probably due in part to the large amount of the butterflies' host plant, <i>Muehlenbeckia complexa</i> , growing at the site. |
| FRESH WATER ANIMALS | | |
| 02/01/98 D. Lee & R. Logan | Koura (fresh water crayfish) | |
| BIRDS | | |
| 02/01/98 D. Lee & R. Logan | Black fantail | One black fantail was seen. |

| DATE FIRST IDENTIFIED | NAME | NOTES |
|--------------------------------|--------|--|
| INTRODUCED ANIMAL PESTS | | |
| 02/01/98 D. Lee & R. Logan | Pig | Although no pigs were actually seen, there were unmistakable signs of recent pig activity where roots had been dug up. These signs were not evident in May 1996. It is noted that (as at 1996) pigs were being farmed on a private property adjacent to the northern boundary of Long Gully Station. |
| 02/01/98 D. Lee & R. Logan | Possum | There was clear evidence that possums were present, although none were actually seen. (The site was visited during the day time.) |