



CAMP SLADDIN & CLEVEDON SCENIC RESERVE MANAGEMENT PLAN

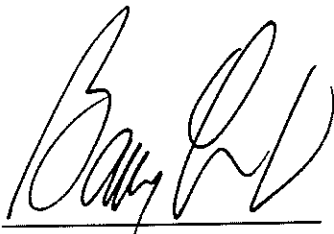


CITY OF MANUKAU

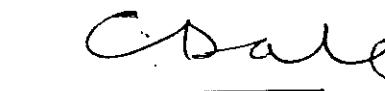
CAMP SLADDIN AND CLEVEDON SCENIC RESERVE: MANAGEMENT PLAN

This Management Plan has been prepared in compliance with Section 41 of the Reserves Act 1977 and approved by the Manukau City Council 26 August 1993.

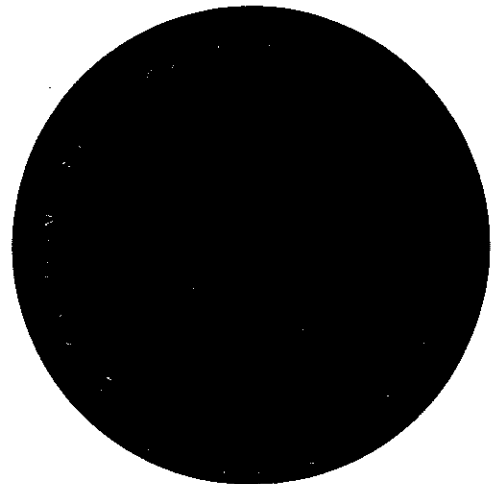
Given under the common seal of **THE MANUKAU CITY COUNCIL** this 27th day of August 1993 in the presence of:



MAYOR



CITY MANAGER



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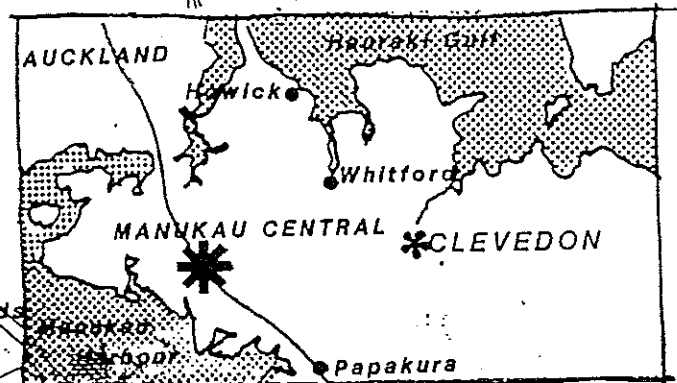
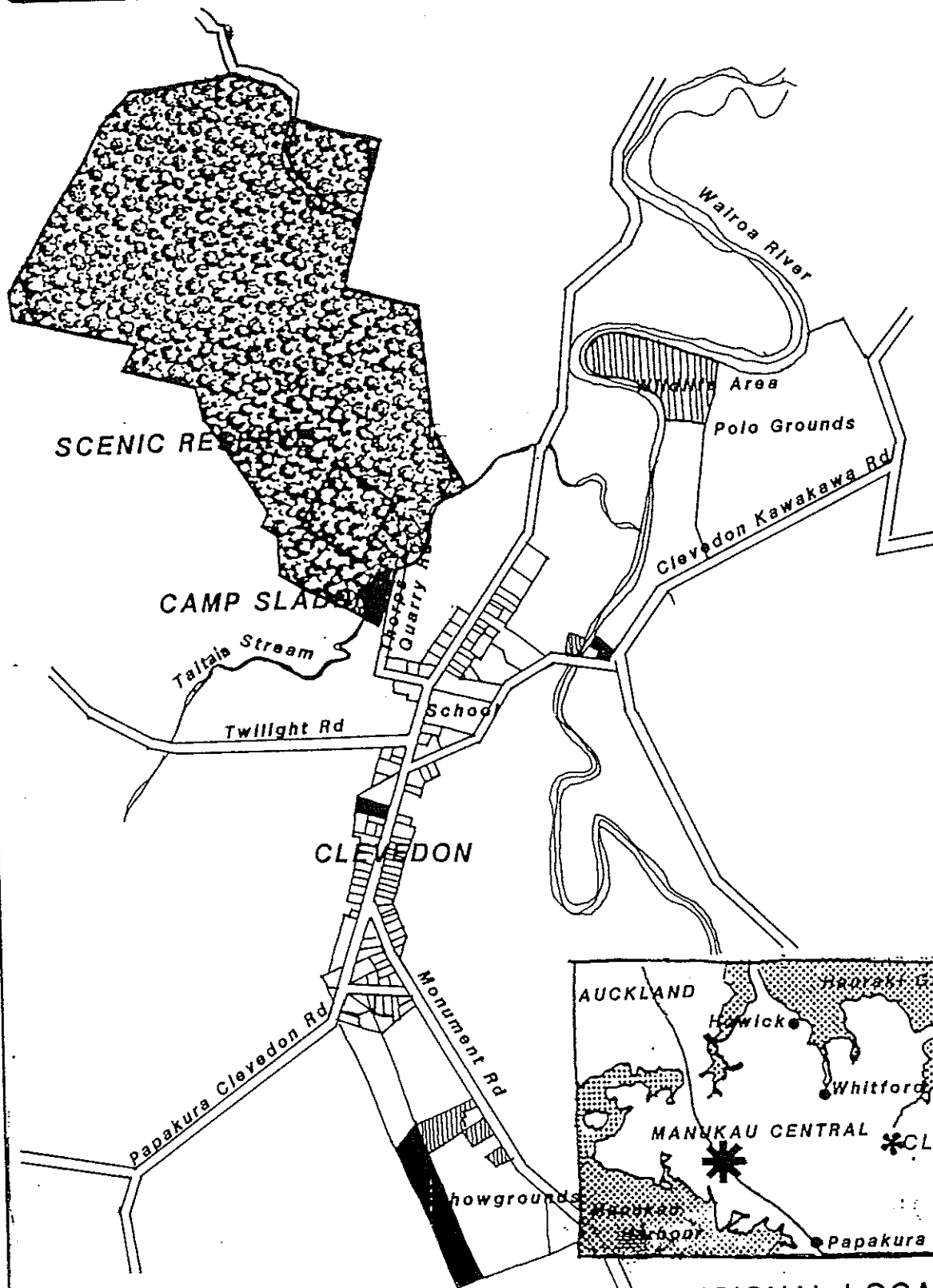
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CLEVEDON SCENIC RESERVE & CAMP SLADDIN

-  SCENIC RESERVE
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REGIONAL LOCALITY

Fig.1. LOCATION

1.0 **INTRODUCTION**

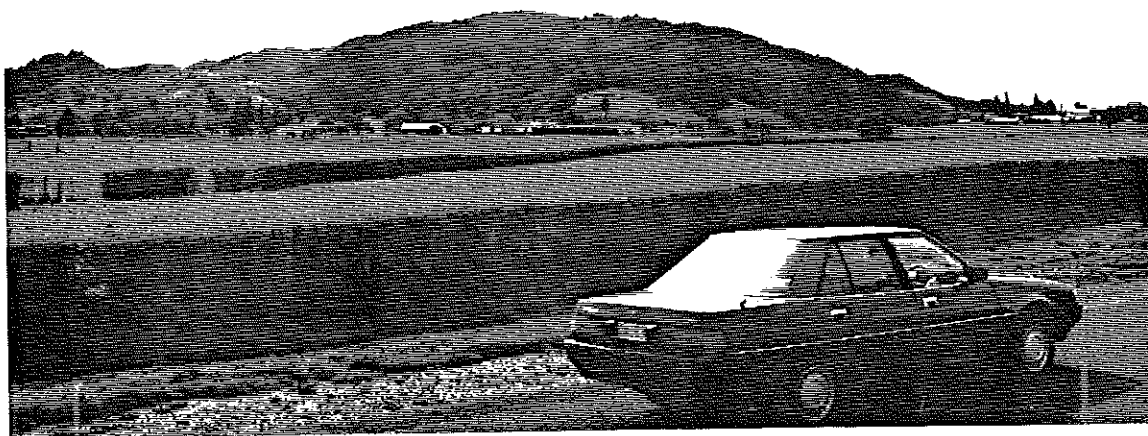
This Management Plan encompasses Clevedon Scenic Reserve and Camp Sladdin, both of which lie at the end of Thorps Quarry Road, less than one kilometre north of Clevedon Township.

Although the Scenic Reserve has been modified over the years through periodic logging and burning as well as the presence of browsing animals, it remains a significant native forested area, exhibiting a variety of forest types at various stages of maturity. The Scenic Reserve forms an ideal back drop for Clevedon Village and Camp Sladdin, an outdoor recreation and camping facility located at the entrance to the Scenic Reserve. Together they provide a important asset to the people of Clevedon and the South Auckland region.

1.1 **HISTORY**

It was for the public that William Hampton Thorp was anxious to have this piece of land set aside for while he was still alive. The land once formed part of William Thorps farm. The issue of securing the land was raised before the Farmers Union by Samuel Browne, Thorps nephew, in 1908. Thorp offered to sell his land for 2 pound an acre. The land was eventually purchased by the Wairoa Road Board as quarry reserve in an effort to secure it. It was then known as Thorps Scenic and Quarry Reserve. When the Road Board merged with the Manukau County Council the reserve automatically fell into its jurisdiction.

In 1926 following a meeting of local ratepayers, it was proposed that the Scenic and Quarry Reserve be handed over to the Crown Lands Department. This Department offered to add adjoining lands to the reserve on the condition that the whole area was vested as public domain under the local councils control. The area was first gazetted in 1930 for scenic purposes and eventually became Clevedon Scenic Reserve control of which was vested in the Manukau City Council in 1957. The quarry has not been used since this time, and today the entire area has been retained for the scenic, educational and recreational needs of the public.



Clevedon Scenic Reserve Backdrop to the Village.

1.2 LEGAL DESCRIPTION & ZONING

LEGAL DESCRIPTIONS

Clevedon Scenic Reserve (includes former Quarry Reserve)

- Allotments 52, 53, 83 and part allotments 11 & 16 Wairoa Parish - situated in bloc VII of Wairoa survey district.
- Area of 93.3588 hectares
- Gazetted as scenic reserve at various times including 1930, 1942, 1957 and 1980 (Page 911).

Camp Sladdin

- Allotment 92 Wairoa Parish - situated in block VII of Wairoa survey district.
- Location 60R Thorps Quarry Road
- Area of 7840m²
- Gazetted from scenic reserve to recreational reserve 1965 and 1990.

ZONING

Clevedon Scenic Reserve - is designated a scenic reserve under the District Scheme and does not fall into any specific zone category. Permitted uses therefore include anything which is seen applicable for a scenic reserve of this type, the nature of which is usually determined by a Reserve Management Plan. If the reserve is put to any other use it reverts to its underlying zoning of Rural 1.

Camp Sladdin - is zoned Reserve 1. This includes areas of public open space which are intended for outdoor recreation and for the protection of important natural and landscape features. (Refer to appendix for zone descriptions).

1.3 SURROUNDING LAND USE

Excluding an area to the east of Thorps Quarry Road, the land around Clevedon Scenic Reserve and Camp Sladdin is zoned Rural 1. This is the general farming zone for the city, providing for a variety of farming activities. The predominant landuse around the reserves is grazing.

During 1990, 3.5 hectares on the slope adjacent to Camp Sladdin was rezoned from Rural 1 to Residential 5, extending the residential zoning of Clevedon township. Residential 5 provides for the unserviced settlements of the City with special provisions as to lot size and density, with the minimum lot size allowable being 1500msq. There has been opposition to the rezoning of this land from numerous sources.

Their main concerns include: -

- That any development will effect the rural character of the area by introducing a suburban element into the rural setting.
- The difficulties arising from increased stormwater run-off and sewerage disposal in this unserviced area, with particular regard to the contamination of the water quality of the Taitaia Stream which runs behind Camp Sladdin. The stream is regularly used for recreation by visitors to the camp and increased discharge into it would be in direct conflict to the natural and recreational qualities of the site.

In addition to these concerns consideration should also be given to other impacts on the recreational qualities of the camp.

At present the Camp provides an ideal rural setting for young people (many of who are from Urban areas) to learn about camping and other outdoor pursuits. The further encroachment of residential development would largely detract from the 'wilderness experience' offered by this regional asset.

The impact of such a subdivision, should it be developed, could be reduced somewhat by integration into the landscape through layout and suitable screen planting. The proposal to develop this land has yet to be pursued any further. However in light of possible future developments, measures should be taken to address and reduce the likely impacts that may occur.

Alternatively consideration should be given to the purchasing of this land and/or reclassification to rural or recreation zoning.

1.4 RELATIONSHIPS TO OTHER RESERVES

Clevedon Scenic Reserve and Camp Sladdin together provide by far, the largest area of reserve in the district. There are however within a radius of 3km a number of reserves catering for various recreational needs. There are two wildlife refuges in close proximity and another scenic reserve, Ruato Reserve, which is an old Maori Pa site. In the township there are two passive reserves. More active recreation is pursued at the Show Grounds an area of which is subject to a conditional purchase agreement between the Manukau City Council and the Clevedon Agricultural and Pastoral Association, as well as at Te Puru Park, and the Beachlands and Whitford Domains, up to 18km away.

Both the Scenic Reserve and Camp Sladdin play quite a significant role in the park system of Manukau City. The Scenic Reserve along with Murphys Bush and Totara Park, offers one of the few significant areas of native bush on reserve land. For this reason alone the protection and promotion of a self-sustainable forest environment is pertinent. The representative vegetation composition, varied terrain, and surrounding rural views are unique attributes to the reserve. Camp Sladdin is one of a limited number of facilities where community groups can gather, and take pleasure from the rural environment. It has the added advantage of the proximity of the scenic reserve to enhance its attraction and widen its scope for passive recreation.

2.0 **SITE CHARACTERISTICS**

2.1 **TOPOGRAPHY**

TERRAIN - The reserve rises quite steeply from 4m above sea level at the narrow flood plain on the valley floor (which is occupied by Camp Sladdin) to 225m at the high point of the reserve. From the summit the land falls to the southeast toward the main entrance on Thorps Quarry Road, and to the southwest on the other side of the ridgeline where a valley runs down into surrounding farmland. The main ridges are quite rounded in their nature and are bisected by small intervening valleys many of which have small streams depending on the time of year. The terrain is generally well disguised by the relatively dense canopy formed above it.

The disused Quarry is near the entrance of the reserve on the lower south eastern slope. It has been carved out between two ridgelines. The quarry wall is a sheer face which rises to 35m at its highest point. A small waterfall cascades down the northern face of the quarry for much of the year to collect in a small pond at the foot of the wall and runs down to the Taitaia stream following the formed track into the area.

SOILS & GEOLOGY - The reserve lies on the Southern corner of one of the elevated earth blocks that form the Maraetai hills. The principal underlying substrata is Greywacke (Waiheke Group), and in a few places weathered Greywacke forms short screes where slips have occurred.

The soils consist mainly of podzolised northern yellow-brown earths and related steepland soils. They are of low medium fertility and drain quite readily.

WATERCOURSES - The Taitaia stream is the main watercourse within the site. It meanders from the South west around the bottom of the scenic reserve physically separating it from Camp Sladdin. To the northern end of the camp is a ford which is usually passable to vehicles, and a wire swing bridge to provide access between the reserves. The Taitaia stream heads off to the north-east where it meets with the Wairoa river. Because this river is subject to tidal influences, flooding of the Taitaia stream occurs quite frequently. In response to periodic flooding the buildings at Camp Sladdin are required to be elevated above the 50 yr flood level. The stream is affected by rural runoff upstream and in summer when the level recedes it can become quite stagnant. Within the bush there are many smaller streams and rivulets which fluctuate depending on the rains and run steeply cutting down into the Greywacke substrate.

2.2 VEGETATION

With the exception of most of Camp Sladdin and a number of small open grassed areas, the reserve land is covered with indigenous forest and bush. The forest has been significantly modified by human influences, and although there are some small yet significant clumps remaining where there are trees several hundreds of years old, much of the forest is probably post-european and at various stages of regeneration. The overall condition of the forest is being undermined predominantly due to browsing animals, and to a lesser degree damage caused by people visiting the reserve. The regeneration rate has been quite vigorous, but has been somewhat stifled through the depletion of shrub and ground layers throughout much of the reserve. Despite this, the bush offers a varied and magnificent array of native flora with some of the fine specimens of kauri, Rimu, and kahikatea in the south Auckland area.

The main habitats include: -

1. Taraire/Broadleaf forest (up to 15m) with Rewarewa and Puriri - The understorey is fairly sparse with a few Nikau, Manuku, Kohekohe, and Mahoe poles. Regenerating canopy species are uncommon.

Tawa increases at the expense of Taraire on steeper, colder face in the northwest.

Podocarp numbers are quite low, with a few large specimens still standing in the north western region of the reserve. The large number of decaying logs including Rata, Podocarps and in particular Kohekohe provide evidence of an earlier and different vegetative composition.

Site coverage 45%

2. Kauri - On a few spurs are small groves of Kauri (up to 20m) associated with smaller Tenekaha, Rewarewa, Maire and Lancewood in the lower layers.

Site coverage 1%

3. Podocarp / Broadleaf - Along the narrow flood plain of the north bank of the Taitaia Stream there are scattered Kahikatea and Pukatea associated with broadleaf shrubs, flax, niggerheads and weeds.

Site coverage 1%

4. Kanuka scrub - On the western slopes there is regeneration of Kanuka mostly with Lancewood.

Site coverage 1%

5. Broadleaf / Treefern / Kanuka Scrub - Along with the main indicator species, there is a variation in composition, with Mahoe, Maupo and Silver Tree Fern common in places and Mamaku dominant in other areas.

Site coverage 20%

6. Young Scrub - On ridge crests and in upper slopes in the northwest which are kept open by grazing, Manuka, Gorse, Bracken, Rangiora, and Mahoe are common.

Site coverage 32%

Invasive exotic weed species are quite prevalent particularly in areas which have had recent disturbance or modification. Some troublesome varieties include Wandering Jew (*Tradescantia fluminensis*), Periwinkle (*Vinca major*), Gorse (*Ulex europaeus*), Barberry (*Berberis sp*) and Crack Willow (*Salix fragilis*). Other notable weed species include Hawthorn (*Crataegus sp*), Himalayan Honeysuckle (*Leycesteria formosa*), and Inkweed (*Phytolacca octandra*).

2.3 FAUNA

The forest provides food and shelter for a variety of bird life. Types of birds observed in the reserve include:

- | | | |
|------------------|--------------------------------|----------------------------|
| - Tui | - Welcome Swallow ^o | |
| - NZ Pigeon | - Song Thrush | - Pukeko ^o |
| - Morepork | - Chaffinch | - Black Shag ^o |
| - Fantail | - Starling | - Little Shag ^o |
| - Silvereye | - Magpie | - Harrier ^o |
| - Grey Warbler | - Kingfisher ^o | |
| - Shining Cuckoo | - Grey Duck ^o | |
| - Blackbird | - Mallard Duck ^o | |
| - House Sparrow | - Paradise Duck ^o | |

- o Species Associated with Stream and Surrounding Area.

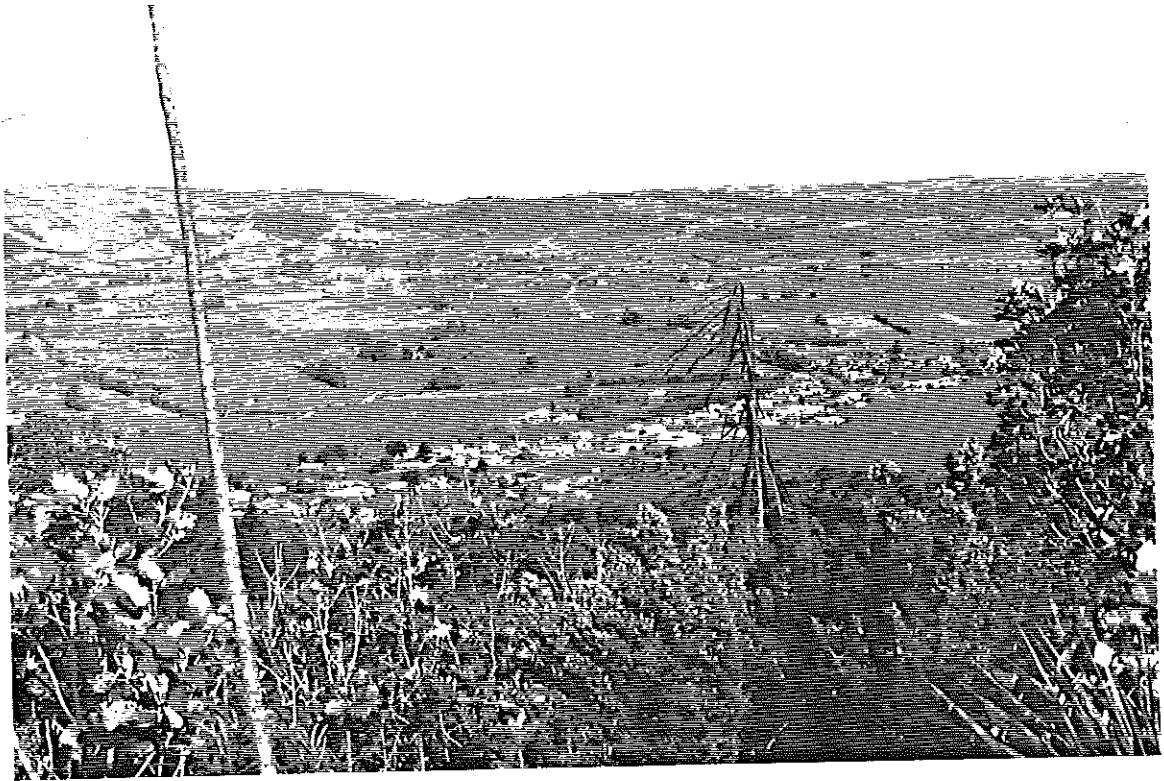
Also present within the reserves are Rabbits, Possums, Goats and probably Cats also. All of which have a detrimental influence on natural processes in the forest. Of particular concern is the impact of the browsing animals and the effect they are having on the lower tiers of the forest structure, inhibiting natural regeneration.

2.4 LANDSCAPE VALUE

The reserve is a prominent natural feature of the area and is visible from most of the surrounding countryside. Its presence is particularly notable from the south, on approach to Clevedon, as it rises gently from the agricultural landscape of the Wairoa Valley, to provide a contrasting forest clad backdrop for the township.

Although the integrity of the forest is somewhat tainted it still provides a great deal of scenic splendor, even from within. The overall character of the reserve changes considerably throughout and offers a variety of experiential qualities to the observer. From the flat open area of Camp Sladdin nestled in the valley, to the Quarry which is like a hidden chasm in the side of the hill, open to the sky and strongly enclosed by the scrub covered face of the quarry wall and the surrounding forest. The forest itself is encompassing and tranquil, and the upper ridges exposed offering impressive views over Clevedon to the Hunuas and as far away as Auckland, and out to the Gulf and the Coromandel Peninsula.

Adjacent to the south western boundary of the Scenic Reserve is an area covered with native trees and scrub which is part of the existing farmland. Although the understorey is almost completely depleted, this area is very important visually as it continues the canopy coverage over the facing side of the hill where the reserve is viewed from the south. To ensure that this forest coverage remain attempts should be made by Council to obtain this land and incorporate it into the Scenic Reserve.



Views from the Scenic Reserve.

3.0 **PRESENT USE**

3.1 **LEASED AREA**

The recreation reserve commonly known as Camp Sladdin is occupied by the NZ Scout Association who have held a lease there since 1969. The lease was renewed for a 10 year period from September 1990. The leased area covers 5995m² of the 7840m² reserve (refer to map). The triangular site is bounded by the Taitaia stream and Thorps Quarry Road.

Buildings on the Site include : -

- Scout Hall - which is the old Clevedon North School Library.
- Hall/bunkrooms - with kitchen, bathroom and toilets. There are some toilets at the side of this building which are available to the public. This building was previously the local school master residence.
- Relocated Scout Hall - recently, approval was obtained from Council to relocate the Scout Hall from Middlemore Reserve in Papatoetoe to Camp Sladdin. This building has been positioned to the north of the existing main hall as an extension of this building linked by an elevated walkway.

This additional building will provide a larger dining room and training area which can be separate from the main complex. To obtain consent to relocate the new building the Scout Association was required to meet certain conditions including the submission of a camp management plan. All conditions have been fulfilled and the building has now been positioned and is in the process of being upgraded.

Other facilities include:

- A septic tank
- Flagpole
- Water supply and drainage
- Concrete paths and service areas
- Individual camp sites with concrete cooking pads.

The camp is mostly used by members of the Scout Association with weekly meetings and camps. Other users include:

- Girl Guides
- Brownies
- Venturers
- Rangers
- Young Mariners
- St Johns
- School, Church, Ethnic and Community Groups

As well as youth and school groups the camp has been used for Adult training courses by organisations such as Mountain Safety, and is on the register of facilities maintained by the Police Search and Rescue for use in emergencies. Before other community groups, clubs or the organisations can use Camp Sladdin consent must be sought from the NZ Scout Association as a delegated responsibility from Council.

3.2 SCENIC RESERVE

Primarily the Clevedon Scenic Reserve is used for passive recreational pursuits with most visitors coming to walk, picnic, and to generally enjoy the forest environment.

In the past various more active pursuits have been undertaken there such as:

- Abseiling training
- Target shooting
- Canoeing
- Orienteering
- Survival training
- Army exercises, including navigation and radio exercises.

Any such use of the Scenic Reserve which may be in conflict with the nature of the site and its intended use, and may possibly be detrimental to the forest environment must have prior approval by the Parks and Civic Area Activity of Council.

3.3 ACCESS/PARKING

The main access to Camp Sladdin and the Scenic Reserve is off Thorps Quarry Road. A gate prevents vehicle access into the reserve for the general public. Users of the leased area have ready vehicle access to this part of the reserve. To the north of the leased area is a ford across the Taitaia stream. There are no formalised car parking spaces at present with the public parking occurring at the road end, and camp users on the reserve in front of the buildings.

There is also a piece of yet to be developed reserve access land extending from North Road to the Northeastern side of the reserve. Pedestrians can cross the Taitaia stream to the scenic reserve via a wire swing bridge which is located next to the vehicle crossing. Pedestrians have access to all parts of the reserves, with a partially formed track system extending into the quarry and well into the forest.

The esplanade reserve is the more suitable access for providing a logical linkage with the proposed track system. The original access is therefore superfluous and may be disposed of to the adjoining landowners in accordance with the procedures set out in the Reserves Act 1977.

4.0 CURRENT MANAGEMENT ISSUES

4.1 NOXIOUS ANIMALS

Grazing animals are a significant problem in the Scenic Reserve. The results of their occupation of the bush can be seen in all parts of the forest. Evidence suggests that a group of feral goats are responsible for most of the damage to the forests ground and shrub layer. Wandering cattle and sheep entering the forest from surrounding farm land may be responsible for some of the deterioration, as parts of the fenceline are in disrepair and passable to stock. Also abundant in sizable numbers are Rabbits and Possums. The cumulative effect of these animals has led to the demise of the structure and health of the forest. In many areas the forest floor is completely open with wind funnelling through and regeneration almost non existent. This depletion of ground and shrub layer is continuous through much of the reserve.

In order to ensure the forest is healthy and self-sustaining for the enjoyment of future generations eradication of grazing animals and possum control is essential. All boundary fences also need to be stockproofed to prevent further animals entering the area.

4.2 UNDESIRABLE PLANTS

Around the forest margins and in disturbed areas, weeds and other undesirable plants are of particular concern (see vegetation) and within the forest where ground layers have been depleted, weeds are also becoming established. To control the presence of undesirable plants in the reserves, a control programme needs to be developed together with follow on maintenance. This along with the removal of grazing animals will assist the natural regeneration of native species by providing condition in which they should eventually out compete introduced weed species.

4.3 CONFLICTING USE

Another factor contributing to the marginal quality of the forest, is the pressure exerted on it in many areas by people. It is apparent that the scenic reserve has in many ways become an extension of Camp Sladdin, presumably due to its close proximity and the nature of activities pursued at the Camp. Because the bush is a scenic reserve of a sensitive nature, certain activities are inappropriate there. Around the camp and close to public access routes examples of trampling, modification and even some examples of intentional damage can be observed. Moving further away from the recreation reserve this type of damage declines. The Scenic Reserve should not be used as a playground by users of Camp Sladdin or by the general public. The bush is very susceptible to damage from high intensity use, and the continued pursuit of these types of activities must stop. Ways to address this problem include:

- Suitable interpretation outlining acceptable activities in the Scenic Reserve.
- Fencing off of certain areas to allow regeneration.
- Developed walkway systems which encourage people to remain on tracks provided.

4.4 LEGAL ROAD

From the entrance of Camp Sladdin to the Quarry area is legal road. To date the road remains largely undeveloped, and for the enhancement of both reserves the classification of this land should be changed to that of reserve status particularly the section from Taitaia stream to the Quarry. There is no real need for vehicles to enter this area as Camp Sladdin and the Scenic Reserve are the destination at the end of the existing sealed road.

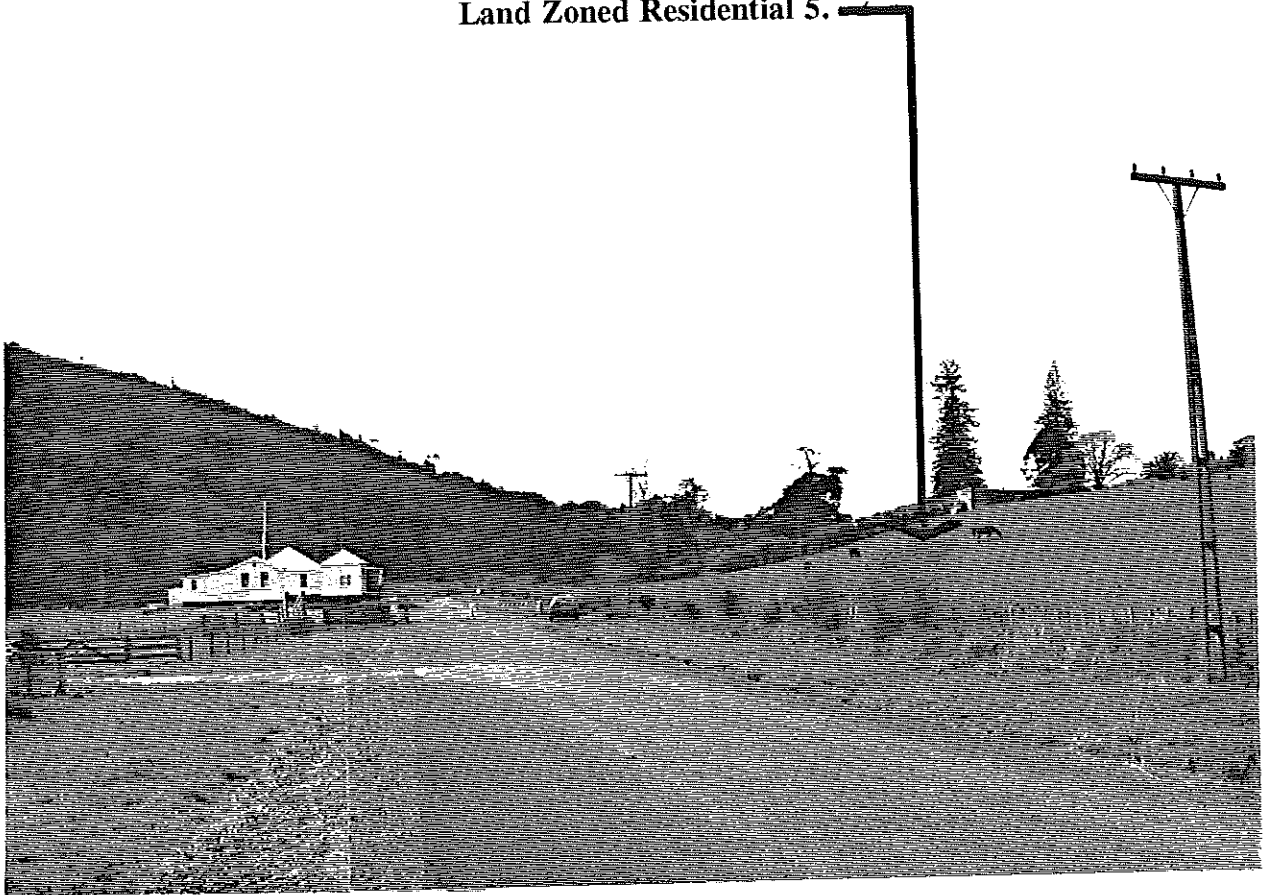
There would be no benefits gained by developing the road into the Reserves. On the contrary this would significantly detract from the quality of both reserve areas. If the sub-division next to the Camp was to proceed access would be required. This could be achieved by the establishment of a right of way on the sub-division land from where the sealed road finishes on the Thorps Quarry Road. This would also help lessen the impact of any potential sub-division and free up land for camp users.

4.5 LEASED AREA

Under the existing Deed of Lease, the NZ Scout Association has possession of all the area as indicated in Appendix 4 & 5, and is responsible for the maintenance and upkeep of this area. The Scout Association must however obtain the consent of Council before undertaking any developments of, or modifications to the site. This requirement has not always been observed by the lessee, and some recent additions have been considered undesirable or inappropriate. In order to maintain better control of the recreation reserve and good relations with the tenant it may be an appropriate time to negotiate the appropriate reduction of leased area to all the buildings and their immediate surroundings.

Camp Sladdin is at the entrance of the Scenic Reserve and at present it detracts visually from the scenic value of the reserve. As part of an overall development plan the Camp needs to be more appropriately integrated into the surroundings. Furthermore a balance needs to be maintained between providing facilities for Camp users and the compatibility with the adjacent Scenic Reserve.

Land Zoned Residential 5.



View of Camp Sladdin from Thorps Quarry Road.

5.0 OBJECTIVES AND POLICIES

5.1 MAJOR MANAGEMENT OBJECTIVE

To manage Camp Sladdin and Clevedon Scenic Reserve for the physical, mental and spiritual welfare of the public by providing suitable outdoor recreation opportunities and the protection and enhancement of the natural environment.

5.2 LANDSCAPE

Objectives

- A. To maintain the natural wilderness character of the area.
- B. To protect and enhance the scenic value and natural integrity of the forest and bush areas of the reserves.

Policies

1. The siting of structures and positioning of fencelines will be in a manner which minimises their impact on the visual qualities of the reserves.
2. The extent of roading, carparking and hard surfacing will be kept to the minimum level required for the functioning of the reserves.
3. To investigate the possibilities of acquiring the tree covered farmland to the south and southwest of the Scenic Reserve as well as the sloping land to the east of Camp Sladdin, and to combine them into the existing reserve.
4. Any modifications to the physical environment must be shown to be necessary to the Council, and must be designed in harmony with, rather than in contrast to the natural features of the reserves.
5. The Taitaia stream shall be protected from further modification, excluding:
 - the upgrade or replacement of the existing pedestrian bridge.
 - the upgrade or maintenance of the existing vehicle crossing.
 - any necessary flood control measures.
6. That a development plan will be produced for the reserves in accordance with this management plan and form the basis for future development.
7. Camp Sladdin shall be more successfully integrated into its surroundings through sensitive landscape treatment and modification of its existing layout.
8. To define and develop the entrance into the reserve so that it more appropriately reflects the qualities of the area.
9. All activities and developments in the Scenic Reserve shall conform with 'Parks and Civic Areas' policy for bush remnants on reserves.

OBJECTIVES

- A. To manage the forest in a sustainable manner as to preserve its integrity as an area of native bush for the use of future generations.
- B. To control the presence of noxious and undesirable plants.

POLICIES

1. Regeneration shall be allowed to occur naturally except for certain designated areas such as open pasture where a nurse crop of a suitable native species should be utilised with the seed sourced from within the reserve.
2. The native bush will be managed in a way that it is self-sustaining.
3. A regular monitoring and eradication programme will be developed to control the presence of noxious weeds and other undesirable plants within the reserves.
4. Suitable protection measures will be introduced to protect the root zones of native trees high use areas, such as
 - Kahikatea in recreation reserve
 - large Kauris in scenic reserve
5. Where species are planted they should be applicable to micro-climate and soil conditions of the area.
6. Planting of exotic species will only be permitted in the area occupied by Camp Sladdin and shall be in keeping with the rural character of the area.
7. If required trees may be removed only in accordance with the Manukau City Council tree removal policy under the direction of the Manager of Parks and Civic Areas.
8. No tree or plant or part thereof may be removed from the reserves, unless it is a recognised weed or undesirable plant species, without obtaining prior permission from the Manager of Parks and Civic Areas.
9. Any New Zealand native plant material planted in either of the reserves shall be propagated from seed sourced from the scenic reserve.

5.4 **RECREATION**

OBJECTIVES

- A. To ensure that unless where specified, only activities appropriate to the sensitive nature of the area be pursued on the reserves.
- B. To make provision for both passive and active recreation pursuits.

POLICIES

- 1. The right of the public to gain access and recreational enjoyment from the reserves shall be maintained in balance with the use of the leased are by the Scouting Association and other user groups.
- 2. Shelter, seating, picnic and other facilities shall be provided in appropriate locations.
- 3. The lighting of fires and use of barbecues shall be restricted to defined areas within the recreation reserve as determined by the Parks and Civic Areas Activity of Council through consultation with the Scout Association.
- 4. Basic amenities including access to the quarry area shall be made available to disabled visitors to the reserves. This will include provision for parking, ramps, footpaths , handrails and accessible toilet stalls.
- 5. In areas of forest and bush, public shall be encouraged to remain on walking tracks and other designated areas, in an effort to retain and protect sensitive areas of native bush.
- 6. All activities mentioned explicitly in this management plan as being compatible with the scenic reserve to be considered legitimate and allowable. (Appendix 8 Desired Experiences).
- 7. No further camping will be permitted in the Scenic Reserve except for designated areas free from sensitive areas of native vegetation, as determined by the parks and civic areas activity of Council.

5.5 BUILDINGS, STRUCTURES AND UTILITIES

OBJECTIVES

- A. To limit the inclusion of any further buildings and structure within the reserves.
- B. To improve the integration of existing buildings and structures into the reserve.

POLICIES

1. Any additional buildings on the reserves, shall conform with Parks and Civic Areas policy for allocation of reserve sites for community and club buildings.
2. If additional buildings or structures are deemed necessary they should be of a scale, design and location that relates to existing structures and complementary to the reserves appearance and functioning.
3. All buildings and other structures must conform with the requirements of the district planning scheme.
4. That existing buildings shall be modified and upgraded so they relate more strongly to each other and so that they blend into the reserve.
5. Any addition or modification to existing buildings and structures shall be approved by Council.
6. All existing buildings shall be suitably maintained so that they serve their intended function and exhibit an appropriate aesthetic appearance.
7. All new services and utilities are to be under ground and sited with regard to minimising the visual and physical impact on the landscape and ecology.
8. The existing swing ridge shall be maintained and upgraded over preference of a new fixed bridge.
9. That Council shall provide a utility block for public usage.
10. Any new dwellings shall be elevated 0.5m above the 1% AEP Flood level.

5.6 NOXIOUS ANIMALS

OBJECTIVES

- A. To control all noxious animals on the reserves.

POLICIES

1. The eradication of all ungulates (hooved animals) from Forest and bush areas of the reserves.
2. To develop a regular rabbit and possum control programme.

5.7 LEASING

OBJECTIVES

- A. To ensure the lessee(s) conform to the terms of the lease within the leased area.
- B. To more successfully integrate the leased area into the surroundings, so that it is more harmonious visually and to develop a suitable entrance for the Scenic Reserve.
- C. To develop a partnership with the lessees for the management of the Scenic Reserve.

POLICIES

- 1. To negotiate a reduction of the leased area to the building and their immediate surroundings.
- 2. Provide as part of an overall development plan design proposals for Camp Sladdin to improve its functioning and character and to help protect and enhance its natural elements.
- 3. That the lessee shall be responsible for the removal of all refuse occurring in the leased area.
- 4. The NZ Scout Association shall ensure continued periodic accessibility to their building by other community groups.

5.8 DISTRICT SCHEME ZONING / RESERVE CLASSIFICATION

OBJECTIVES

- A. To assign the Clevedon Scenic Reserve a reserve one zoning (public open space) under the next review of the new District Plan.

POLICIES

- 1. Council will initiate the appropriate procedures to instigate scheme/plan change as described above.
- 2. That the Recreation Reserve, presently Thorps Quarry Road Reserve be formally renamed Camp Sladdin.

5.9 INTERPRETATION

OBJECTIVES

- A. To provide suitable interpretation in appropriate locations.

POLICIES

1. An integrated sign system shall be developed for the reserves. This should include:
 - A main interpretation panel located near entrance points providing information about the reserves, location of tracks, specific features and prohibited activities.
 - Auxiliary interpretation panels where required eg lookouts etc.
 - Track marker indicators
 - An assigned educational area with individual species identification markers.
2. Signs shall be of a robust design sensitive to the nature of the surrounding environment.
3. The number of signs shall be kept to a minimum necessary to provide information about the features and facilities of the reserve and help promote appropriate use of the areas as well as public safety and enjoyment.
4. Signs shall be located as not to become dominant features, and not to detract from the reserves scenic qualities.
5. All signs shall be in accordance with the Parks and Civic Areas policy for signage on reserves.

5.10 FENCES AND BOUNDARIES

OBJECTIVES

- A. To ensure the site boundaries are stockproofed and visually integrated into the landscape.

POLICIES

1. Fences will be of a design appropriate to the rural and forest environment.
2. Internal fencing shall be installed to protect specific areas of bush and combined into the bush along tracks to help prevent users straying from defined paths.
3. Where required all boundary fences shall be repaired and inspected at regular intervals to ensure they are not passable to stock.
4. A lockable gate will remain at the entrance to the reserve to limit the access of motor vehicles.

OBJECTIVES

- A. To provide and maintain suitable pedestrian access into the reserve.
- B. To sensitively blend pedestrian routes into the natural surroundings.
- C. To encourage extensive use of the reserves by providing formed access through out.

POLICIES

1. To allow suitable access into the reserves through the establishment of a hierarchial network of paths.
2. A pedestrian access route from North Road to the Scenic Reserve shall be provided by the Esplanade Reserve along the north side of the Taitaia Stream which will link up with the walkway system in the Reserve.
3. In areas where practicable wheelchair access should be provided for.
4. Low key lookout areas will be established on the way to and at the summit of the Scenic Reserve to take full advantage of the panoramic views.
5. Where paths meet with a fenceline a stile or gate shall be provided in order to minimise damage to fences.
6. The public will be encouraged to remain on designated tracks in all areas of the forest in order to protect and encourage regeneration.
7. The public may be excluded from time to time from designated areas of bush to allow regeneration.
8. Paths in the bush will be formed with compacted gravel where practicable, and where necessary sensitively designed, above ground wooden structures will be used on steep and wet ground to assist in access and help prevent degradation in such areas.
9. While generally keeping to the most direct route, path alignment shall, where possible include natural curves responding to vegetation patterns, land form, and waterways of the reserves.
10. To investigate the possibility of developing a walkway from Clevedon to Maraetai via Camp Sladdin/Scenic Reserve.

5.12 VEHICULAR ACCESS AND PARKING

OBJECTIVES

- A. To provide motor vehicle access and parking in response to the needs of reserve users within limitations set to maintain the natural qualities of the reserve.

POLICIES

- 1. To determine as part of the development plan, the nature and extent of vehicle access and parking areas.
- 2. To prohibit the use of motor cycles on reserve land.
- 3. Council vehicles and other vehicles authorised by council shall have access to those parts of the reserves where their use is necessary.
- 4. The provision for excess temporary parking shall be addressed as part of the development plan.
- 5. Carpark areas shall be suitably integrated into the surrounding areas.
- 6. Excluding the proposed main carparking area, no public vehicle access shall be permitted on the reserve except by that of camp users, or those with permission obtained from Council.
- 7. To maintain and upgrade the present access through the Taitaia stream.

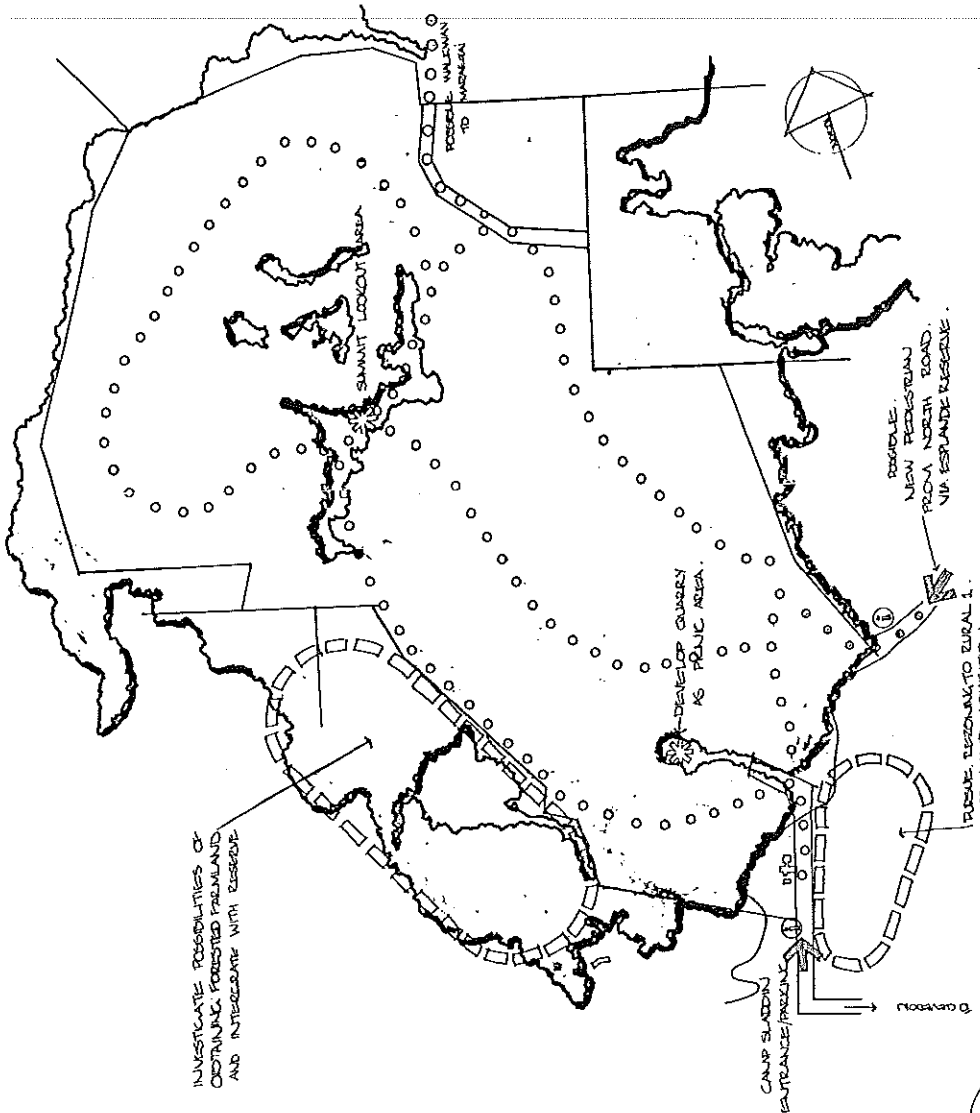
5.13 **SITE FURNITURE**

OBJECTIVE (also refer to interpretation)

- A. To provide site furniture of appropriate design and location as required to ensure public convenience and enjoyment in use of the reserves.

POLICIES

1. Furniture should be designed and located in such a way that they are sensitive to the surrounding rural setting and forest environment.
2. Site furniture will be kept to a minimum to avoid visual clutter.
3. Seating shall be placed in appropriate locations with regard to sun, wind, shelter, and views.
4. Litter bins of appropriate design shall be located in areas where litter may be a problem.
5. No further concrete fire pads shall be allowed under native trees in the leased area, and existing fire pads in such places shall be relocated to more appropriate locations.
6. The design of all site furniture and fittings shall be co-ordinated in terms of colour, scale, materials and style.

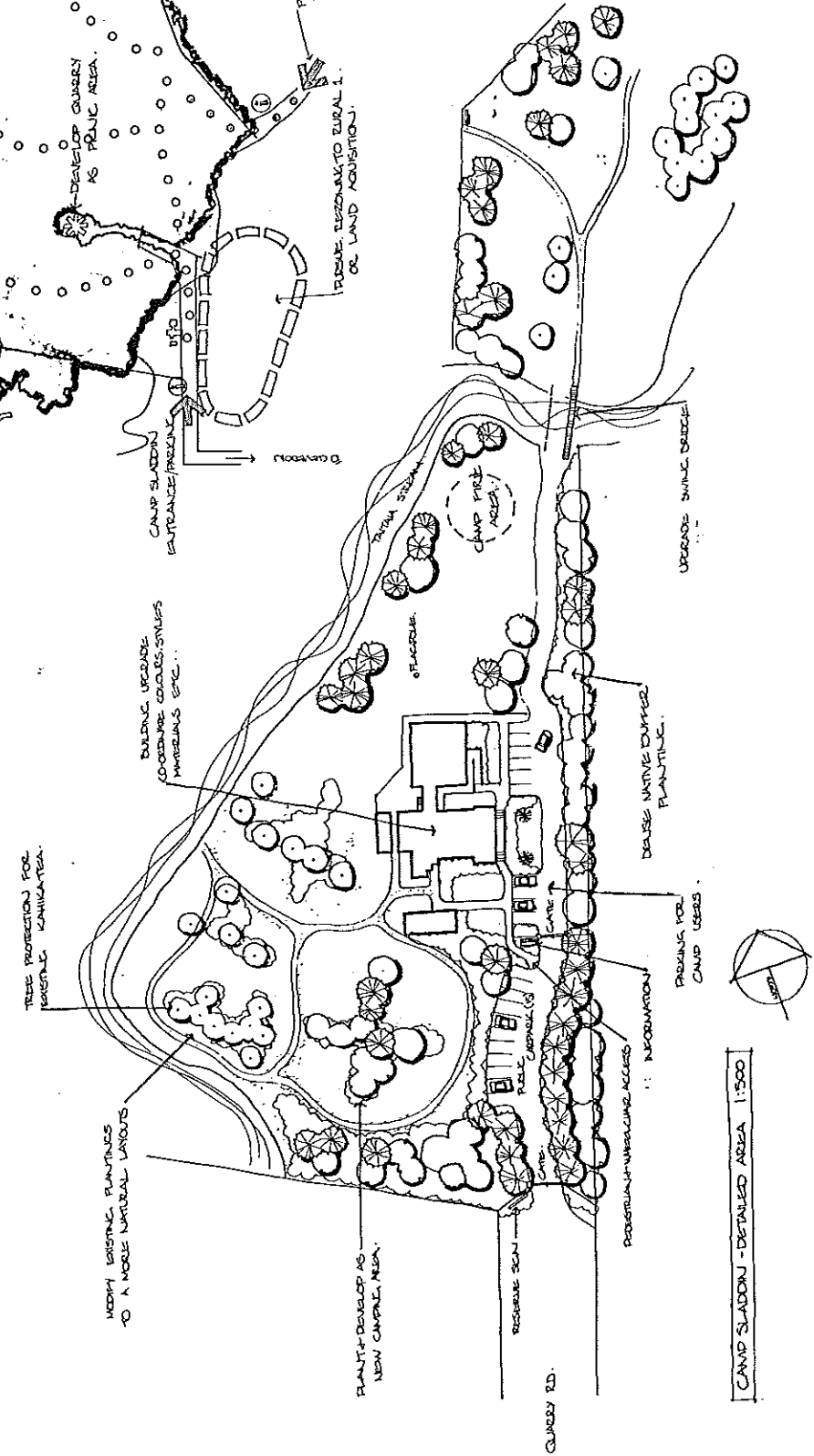
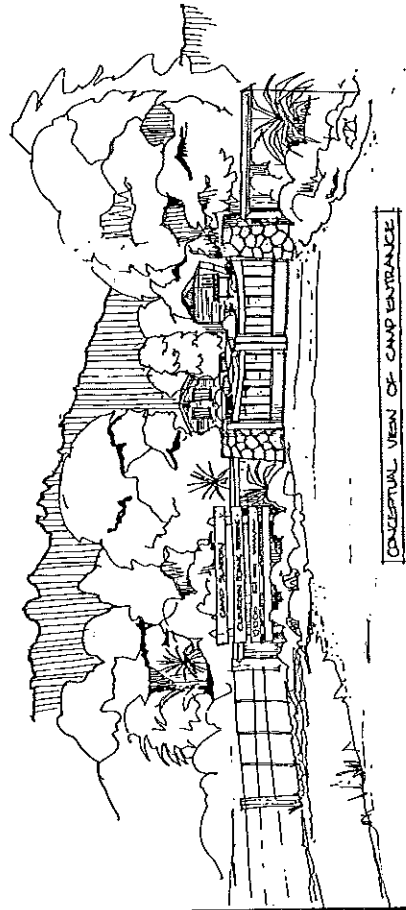


CLEVEDON SCENIC RESERVE 1:4000

○ ○ INDICATIVE WALKWAY ROUTES.

① MAIN INTERPRETATION POINTS.

MANUKAU CITY COUNCIL PROPERTY GROUP	
IN CLEVEDON SCENIC RESERVE & CAMP SLADDON DEVELOPMENT CONCEPT	
DATE	17/7/78
PROJECT NO.	1
NO. 1	1
NO. 2	2
NO. 3	3
NO. 4	4
NO. 5	5
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NO. 99	99
NO. 100	100



CAMP SLADDON - DETAILED AREA 1:500

APPENDICES

Appendix 1

A. STATUTORY REQUIREMENTS

This draft management plan has been prepared in terms of Section 41 of the Reserves Act 1977, which requires bodies administering reserves under the Act to prepare management plans for the reserves under its control. Glenhouse Reserve is classified as Recreation Reserve under the Act.

B. DEFINITION AND PURPOSE OF A MANAGEMENT PLAN

Planning is a process of conscious and deliberate effort which gives a sense of direction by describing desired outcomes and the pathways to achieving these. It involves the collection, analysis and organization of information to facilitate decision-making which will lead into the future. The management plan for a reserve is a specific part of this overall process of planning.

Reserve management plans are documents outlining objectives and policies for the protection, development, maintenance and enjoyment of individual reserves. Each plan seeks to balance the protection of natural, cultural and spiritual resources with the provision of recreational and educational opportunities that are relevant to the needs of the region.

The process of writing a management plan allows the public opportunities to have input and therefore to take part in decision-making which will affect the future of the reserve.

The purpose of this Plan, therefore, is to provide for the use, enjoyment, maintenance, protection, and sensitive development of Glenhouse Reserve in keeping with the natural, spiritual and cultural character of the area and within the limits of the Manukau City Council's available resources.

To achieve this purpose, the Plan:

1. Provides clear objectives and policy statements with regard to the Reserve which are designed to encourage consistency in decision making.
2. Contains management policies which can be readily understood and are able to be implemented.
3. Is clear about general intentions and attitudes while retaining flexibility.
4. Provides a procedure for public involvement during its preparation and review (Section 41(4) Reserves Act 1977).

C. THE MANAGEMENT PLAN PROCESS

The process being followed with this Plan is in accordance with the provisions of the Reserves Act 1977. Glenhouse Reserve is bound by the Reserves Act which requires management according to management plan.

It is part of the statutory process that the public has the opportunity to express its views on the management of the reserves. Public involvement in the preparation of the Plan has been achieved by calling for submissions at two stages of the process: first, before the Draft Plan was prepared; and secondly after Manukau City Council had approved this draft for release to the public. The Council will consider the public submissions and the amended plan will then be approved and published.

All relevant statutory obligations, bylaws and approvals by Central, Regional and Local Government agencies will be complied with in the implementation of this Plan.

The management plan once adopted by the Manukau City Council operates for a period of five years or for a lesser period if a review is necessary.

D. MANUKAU CITY RESERVES OBJECTIVES

Part 13 of the City of Manukau Proposed Second Reviewed District Scheme 1989 presents objectives and policies for Reserves and Recreation in the City.

Objectives

1. To promote and maximise opportunities for recreation throughout the City.
2. To obtain sufficient reserve land to meet the recreation and community needs of residents of the City.
3. To establish a range of reserves in new residential areas to provide for a variety of functions and to cater for the needs of residents in the locality.
4. To select those sites for public reserves which are functional and economic in terms of the purposes proposed for the reserve and which also protect areas of landscape value.
5. To maximise public access, use and enjoyment on reserves and to protect the amenities of surrounding areas.
6. To provide a range of permitted uses in each of the reserve zones in accordance with the objectives for these zones.
7. To conserve features which are significant to the amenities of reserves.
8. To seek the adequate provision of regional parks in Manukau City.

E. MONITORING AND CHANGES TO THE PLAN

1. Plan Monitoring

If a plan is to be effective and remain usable, future changes must be recognised and accommodated. If this is not built into the plan, a major unforeseen change can render the plan obsolete before it is due for review (a review is due every 5 years in accordance with the Reserves Act 1977).

Changes of this type are unpredictable. However, by monitoring effectively and having a set strategy for changing the plan, a valuable management tool remains usable.

Public use and operational factors are monitored by staff in their daily surveillance and servicing of the reserves. Planning matters, such as regional planning and harbour planning, are monitored by the Manukau City Council's planning staff.

2. Criteria for Undertaking a Plan Change

A plan change, as detailed below, will be initiated for any one of the following reasons:

- Any proposed new use, activity, facility or development which is not provided for in the plan and which is consistent with the management philosophy and objectives of this plan.
- Any proposal for a new or amended lease or concession operation in the park.
- Any statutory or legislative change which would render the plan inoperable or illegal.
- Any major change in recreation needs or any other factor which the Manager, Parks sees as warranting a change to the plan.

3. Plan Change Procedure (S41, Reserves Act 1977)

1. The Council publicly advertises the proposed change and makes a copy of the proposed change available to the public.
2. The Council notifies, in writing, any person or organisation which it considers will be significantly affected by the proposed change.
3. The Council receives written submissions on the proposed change for a period of not less than eight weeks after the first public advertisement.
4. The Manukau City Council considers the submissions and the proposed plan change and adopts, rejects or amends and adopts the plan change.

Appendix 2

PART 13 RESERVES, PUBLIC OPEN SPACE AND RECREATION

13.3 ZONE STATEMENTS AND ORDINANCES FOR PERMITTED DEVELOPMENT, USES AND BUILDINGS

13.3.1 RESERVE 1 (Public Open Space)

13.3.1.1 Zone Statement

The major purpose of this zone is the provision and protection of areas of public open space. These areas will be predominantly free of buildings and will provide for casual outdoor recreational use, for visual relief in urban areas and for the protection of the natural and landscape features of particular reserves.

This zone applies to numerous neighbourhood reserves in residential areas and will ensure that areas of public open space are available within reasonable walking distance for the majority of the urban population. Generally only accessory buildings or structures such as playground equipment and toilet blocks are permitted on these reserves.

In the past small scale community buildings such as plunket rooms and scout halls have often been located on small neighbourhood reserves and since it is often difficult to predict where such facilities will be required, provision is made for these buildings in this zone. Community buildings are a conditional use in this zone subject to maximum site coverage of 10% of the area of the reserve and also to consideration of criteria specified in Ordinance 13.4.1.

This zone also applies to other, generally larger, reserves such as Point View Reserve and parts of Mangere Mountain and Totara Park which have significant landscape values and some coastal reserves which have important open space and natural values. On these special reserves the land will be managed to protect the landscape, historic, archaeological, biological, geological or other scientific features or indigenous flora or fauna or wildlife which are present on the reserve. In some cases this may require restrictions on public access.

13.3.1.2 Ordinance

13.3.1.2.1 Permitted Development, Uses and Buildings

The following shall be the permitted development, uses and buildings in the Reserve 1 zone provided that where any land in this zone is a reserve in terms of the Reserves Act 1977 no development, use or building shall be permitted which contravenes that Act or is not in accordance with any current management plan prepared under that Act.

(a) Predominant

- Any outdoor activity for public recreation and enjoyment
- Play or leisure equipment and related development

- Children's playgrounds and related structures
- Public toilets, shelters, restrooms, changing rooms, and first aid rooms
- Plant nurseries and accessory buildings, including greenhouses
- Farming except factory farming and afforestation as part of a programme of management for the reserve including accessory buildings other than household units
- Storage and implement sheds ancillary to any permitted use.

(b) Conditional

Subject to assessment against the relevant criteria set out in Ordinance 13.4.1.

- Any use that is listed as predominant in the Reserve 4 zone but is not specified in 13.3.1.2.1 (a) above
- Public boat launching ramps
- Residential accommodation for a caretaker, groundsman or manager
- Accessory buildings not permitted as a predominant use.

13.3.1.2.2 Special Provisions

Monorail Transportation Systems shall be controlled uses in that part of the Reserve 1 zone within the Manukau Central Area as defined by Plan 7C and are subject to Ordinance 7.7.3.

13.3.1.2.3 General Ordinances

The following ordinances apply to predominant development, uses and buildings in this zone and may be used as a guide in respect of applications for conditional development, uses and buildings:

Bulk and Location Requirements - Ordinance 13.4.2

Exterior Lighting - Ordinance 13.4.3

Noise Control - Ordinance 13.4.4

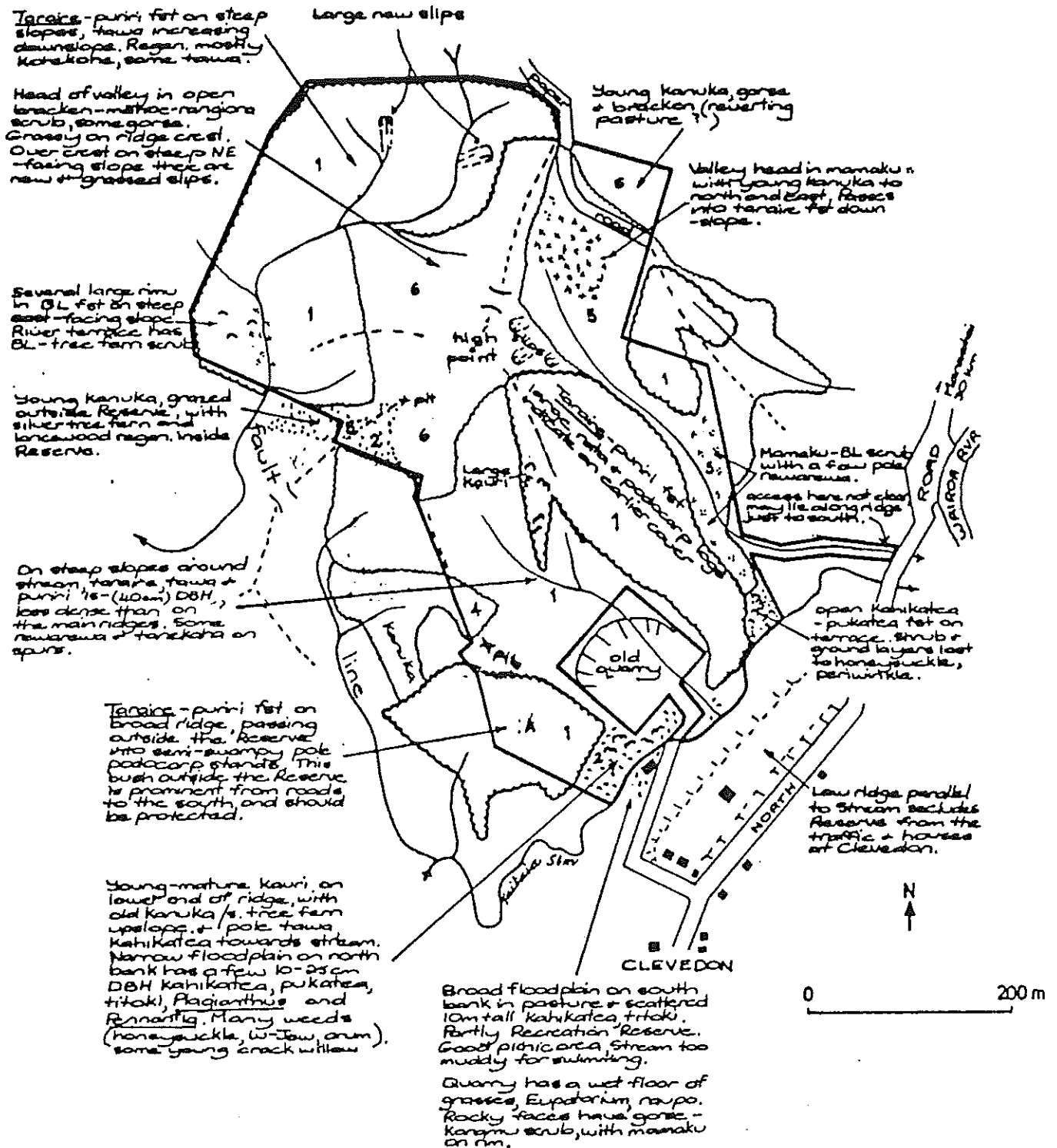
Subdivision - Ordinance 13.4.5

Conservation of Landscape - Ordinance 13.4.6

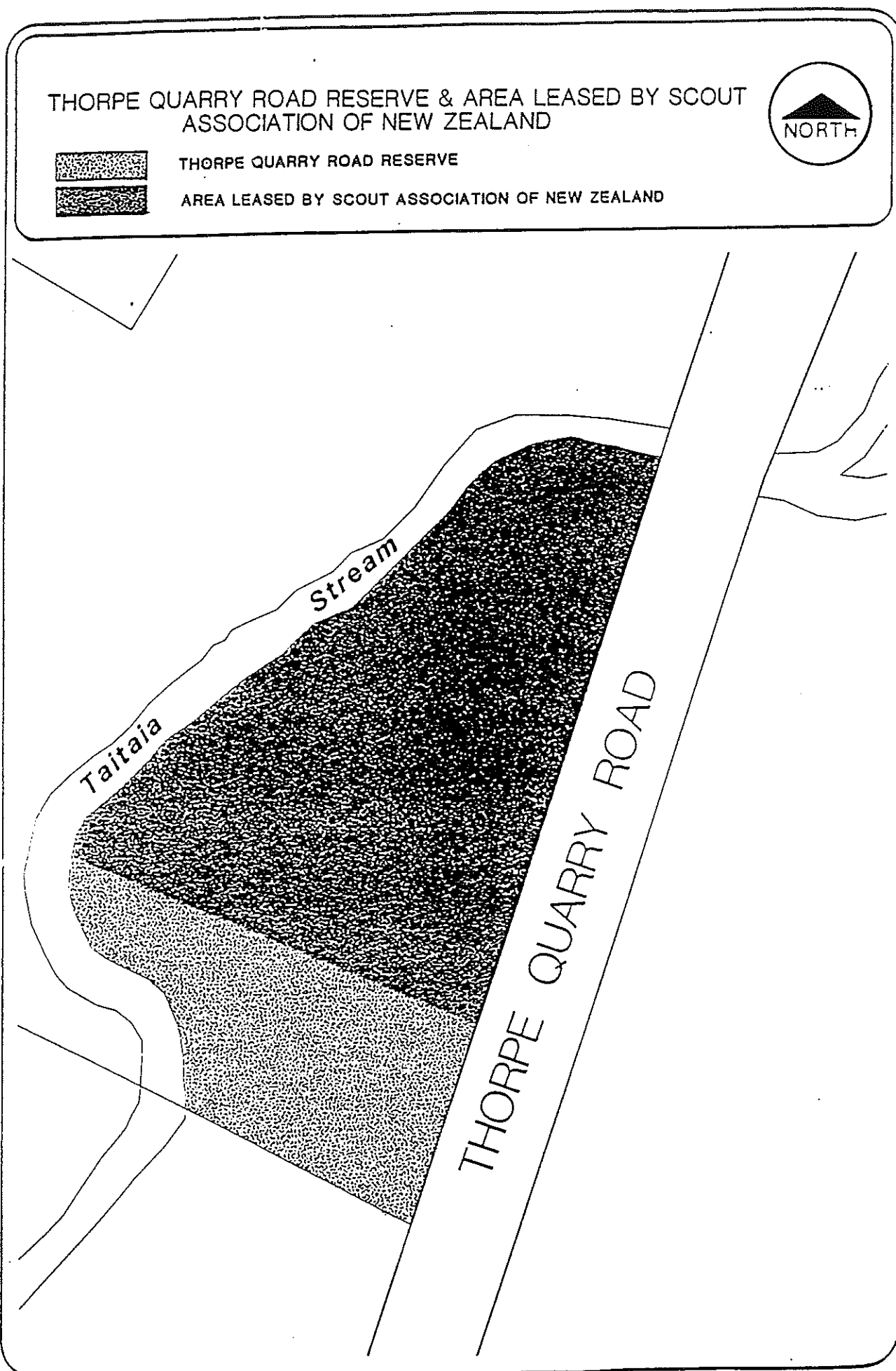
Parking and Loading - ordinance 17.3 in Part 17

Design and External Appearance of Buildings and Maintenance - Ordinance 19.3 in Part 19.

Appendix 3



Appendix 4

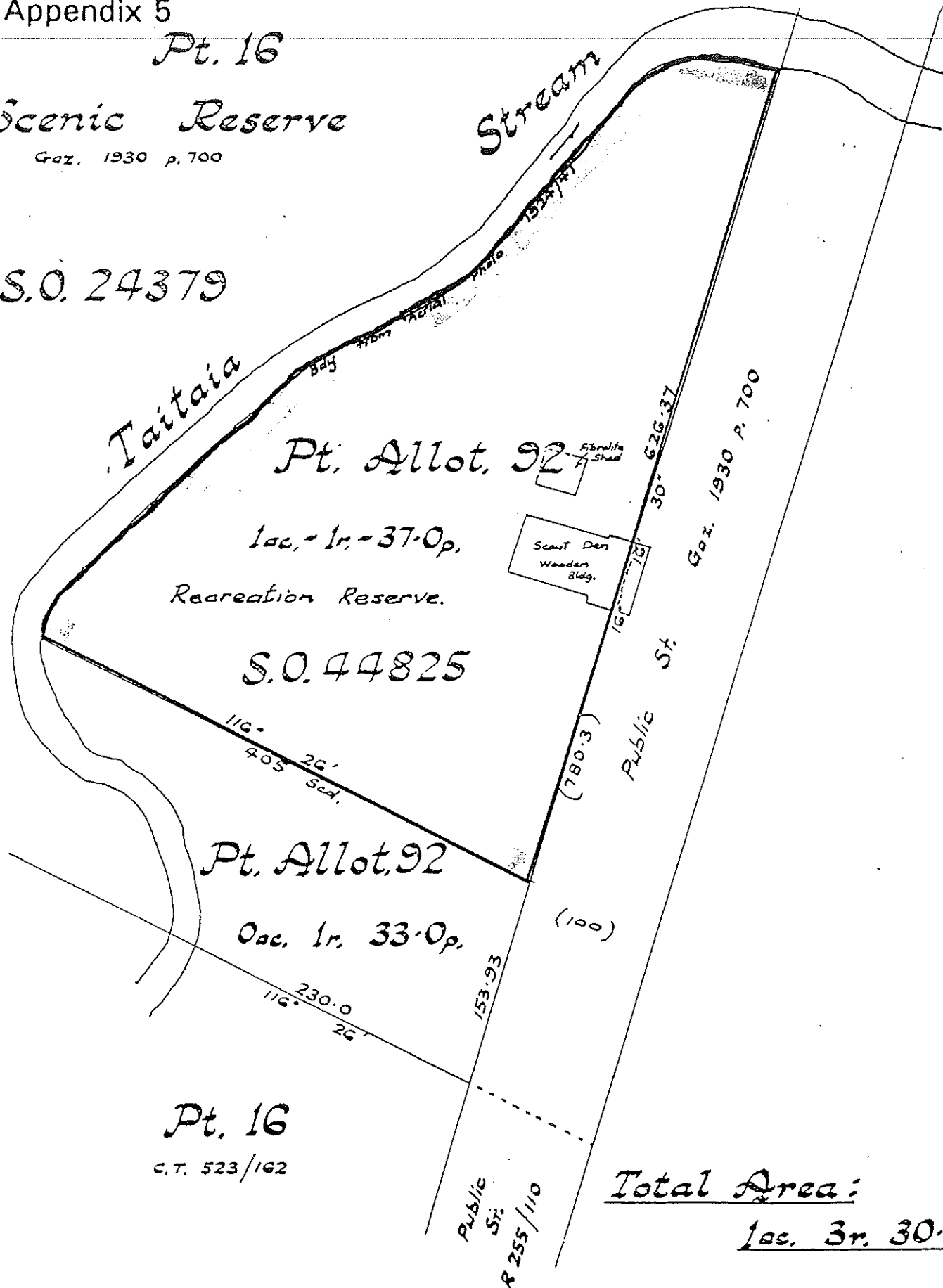


Pt. 16

Scenic Reserve

Gaz. 1930 p. 700

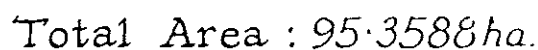
S.O. 24379



Plan of Allotment 92 Wairoa Parish

Scale: 1 chain to an inch.

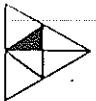
May 1968



Aerial Photos: 1924 / 46-47; 19/8/1960

PROPOSED SUBDIVISION

Appendix 7



CARTER KEUCKE & LATHAM LTD

LAND & ENGINEERING SURVEYORS
LAND DEVELOPMENT CONSULTANTS

Members of the Chartered Surveyors of N.Z.

HAMILTON

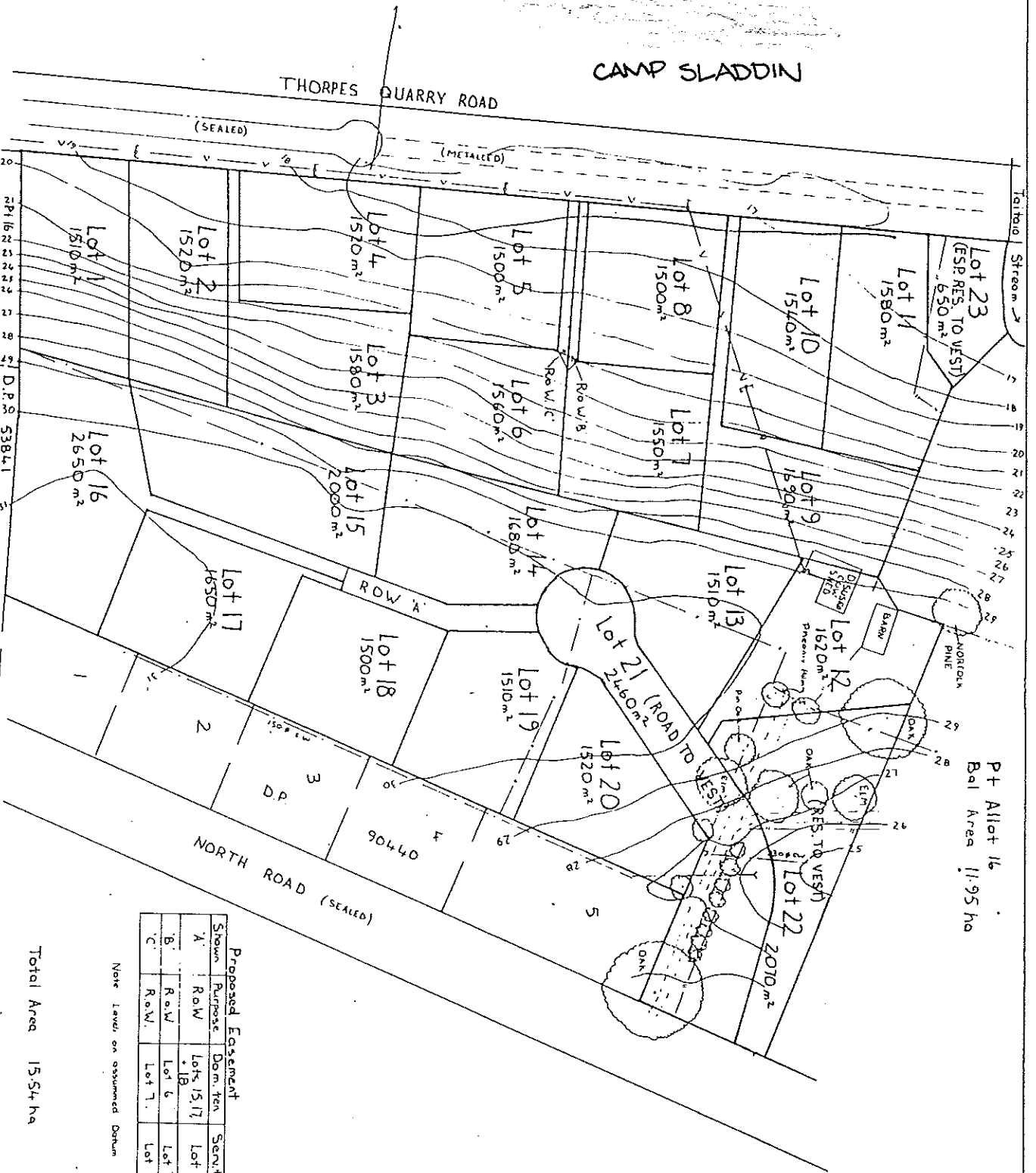
TE AWAKITITI

COHOMANDI

OTOHIRAHIA

SAVING APPEAL

Proposed Subdivision of
Pt Allot 16, Waikato Parish.



SCHEME PLAN 89728

Registered Owner P.J. LANE ESTATE

Comprised in CT 138/892

LOCAL BODY Manukau City

SURVEY DISTRICT & BLOCK

VII Waikato S.D.

LAND DISTRICT North Auckland

SCALE: 1:750 Date Nov. 1990

I, David Vernon McCrea Registered Surveyor hereby certify that this Scheme Plan has been prepared by me in accordance with the provisions of the Local Government Act 1974.

REGISTERED SURVEYOR

Approved by the Council under Sec 279 of the Local Government Act 1974, at a meeting held on the ___ day of ___ 19___ subject to the conditions of Resolution No. ___

CHIEF EXECUTIVE

NOTE: Areas and dimensions on this scheme plan are subject to change on field survey.

DESIRED EXPERIENCES

- Appropriate activities for Clevedon Scenic Reserve.

- Walking/Hiking (on defined routes)
- Viewing Scenery
- Picnicking
- Relaxation
- Conservation experience/Education/Interpretation
- Bird Watching
- Photography
- Sunbathing
- Camping (defined areas only)

or any other activity approved suitable by the Parks and Civic Areas Activity of Council.

A list of Indigenous vascular plants
in Clevedon Scenic Reserve Manukau Co.

Area inspected during a short ramble on 11/9/1977
 and a further brief visit on 27/11/77.

Additional plants located by South Auckland Forest
 & Bird field trip on 16/9/79, with members contrib-
 uting a further 31 plants to this list.

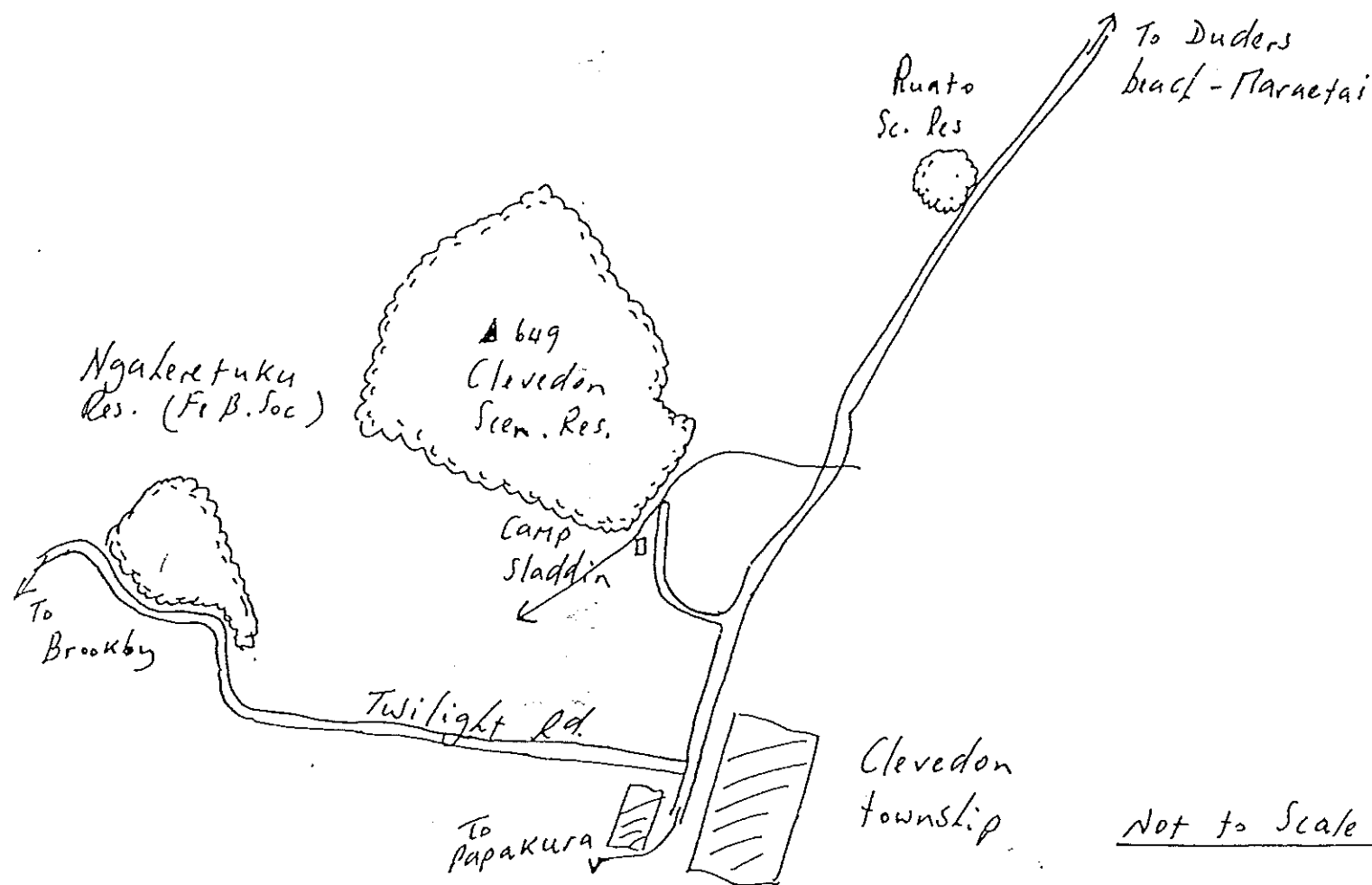
(see species lists for Ngaheretuku and Ruato Reserves
 for some additional plants which grow in the general
 locality)

Altitude : c. 100 to 650 ft

Map ref : 544450 N.Z.M.S. 1 N. 42 Auckland

Number species recorded 142 indigenous

Location sketch (see attached plan for further
 detail)



GYMNOSPERM TREES

<i>Agathis australis</i>	lm
<i>Dacrydium cupressinum</i>	lp
<i>Dacrycarpus dacrydioides</i>	lp
<i>Phyllocladus trichomanoides</i>	p
<i>Podocarpus ferrugineus</i>	o
<i>P. spicatus</i>	o
<i>P. totara</i>	o

MONOCOT TREES

<i>Cordyline australis</i>	fl.2 lp
<i>C. banksii</i>	o
<i>Rhopalostylis sapida</i>	p

DICOT TREES & SHRUBS

<i>Alectryon excelsus</i>	fl.2 o
<i>Alseuosmia macrophylla</i>	fl.1.0
<i>Bielschmiedia taraire</i>	p
<i>B. tawa</i>	lm
<i>Brachyglottis repanda</i>	m
<i>Carpodetus serratus</i>	lp
<i>Coprosma arborea</i>	lp
<i>C. areolata</i>	lp
<i>C. australis</i>	o
<i>C. lucida</i>	o
<i>C. rhamnoides</i>	lm
<i>C. robusta</i>	o
<i>C. spatulata</i>	o
<i>Corynocarpus laevigatus</i>	lm
<i>Cyathodes fasciculata</i>	lm
<i>Dysoxylum spectabile</i>	m
<i>Geniostoma ligustrifolium</i>	m.
<i>Griselinia lucida</i>	o
<i>Haloragis erecta</i>	o

<i>Hedycarya arborea</i>	m
<i>Hebe stricta</i> var. <i>stricta</i>	o
<i>Knightia excelsa</i>	fl.2 m
<i>Laurelia novae-zelandiae</i>	o
<i>Leptospermum ericoides</i>	lp
<i>L. scoparium</i>	lm
<i>Litsea calicaris</i>	o
<i>Lophomyrtus bullata</i>	o
<i>Macropiper excelsum</i>	p
<i>Melicytus ramiflorus</i>	p
<i>Metrosideros robusta</i>	o
<i>Myrsine australis</i>	lm
<i>Nestegis lanceolata</i>	o
<i>Olearia rani</i>	m
<i>Paratrophis microphylla</i>	o
<i>Pennantia corymbosa</i>	lm
<i>Pittosporum eugeniioides</i>	o
<i>P. tenuifolium</i>	m?
<i>Plagianthus betulinus</i>	lm
<i>Pseudopanax crassifolius</i>	m
<i>Schefflera digitata</i>	lp
<i>Sophora microphylla</i>	o
<i>Solanum aviculare</i>	o
<i>Vitex lucens</i>	fl. 1 p

CLIMBERS & LIANES

<i>Clematis paniculata</i>	o
<i>Freycinetia banksii</i>	o
<i>Metrosideros diffusa</i>	lp
<i>M. fulgens</i>	p
<i>M. perforata</i>	p
<i>Muehlenbeckia australis</i>	o
<i>Ripogonum scandens</i>	lm

Climbers & lianes cont: -

Rubus cissoides o
Tetraparhlea tetrandra o

FERNS & FERN ALLIES

Adiantum cunninghamii o
A. diaphanum o
A. fulvum lm
Anarthropteris lanceolata lm
Asplenium bulbiferum o
A. flaccidum m
A. lamprophyllum lp
A. lucidum m
A. polyodon o
Blechnum discolor o
B. capense lp
B. filiforme p
B. frazeri o
B. lanceolatum o
B. membranaceum lm
Cyathea dealbata m
C. medullaris lm
Ctenitis glabella lp
(also small stream side form)
C. decomposita lo
Dicksonia squarrosa o
Doodia media lm
Histiopteris incisa o
Hymenophyllum demissum o
H. sanguinolentum o

List: 31 =

Lindsaea trichomanoides lm
Lycopodium sp o
Lygodium articulatum c
Paesia scaberula c
Pteridium aquilinum var. esculentum (f)
Pteris macilentata l
P. macilentata var. saxatilis l
P. tremula l
Phymatodes diversifolium r
P. scandens m
Pyrrhosia serpens lp
Rumohra laspidata lm
Thelypteris pennigera o
Todea lymnophylloides o
Tmesipteris sp. o
Trichomanes elongatum o
T. endlicherianum o
T. reniforme. o

DICOT HERBS

Acaena sp. o
Centella uniflora lp
Drosera auriculata lm
Elatostema rugosum o
Gnaphalium spp. o
Lagenifera pumila o
Peperomia urvilleana o
Nertera cunninghamii lm
N. dichondraefolia o

MONOCOT HERBS, ORCHIDS,
GRASSES.

<i>Acianthus fornicatus</i>	lm
var. <i>sinclairii</i>	
<i>Astelia trinervia</i>	o
<i>A. solandri</i>	m
<i>Collospermum hastatum</i>	m
<i>Bulbophyllum tuberculatum</i>	o
<i>Dianella nigra</i>	o
<i>Drymoanthus adversus</i>	o
<i>Farina mucronata</i>	o
<i>Libertia ixiodes</i>	o
<i>Microlaena avenacea</i>	o
<i>Notodanthonia</i> sp.	lm
<i>Pterostylis alobula</i>	o
<i>P. banksii</i>	lm
<i>P. trullifolia</i>	lm
<i>Phormium tenax</i>	o

SEDGES & RUSHES

<i>Carex lessoniana</i>	lp
<i>C. spp.</i>	lp
<i>Cyperus ustulatus</i>	lp
<i>Gahnia lacera</i>	o
<i>G. pauciflora</i>	lm
<i>Scirpus chlorostachyus</i>	lm
<i>St. reticularis</i> ?	o
<i>Typha orientalis</i>	lp
<i>Uncinia banksii</i>	p
<i>U. uncinata</i>	lp

Some adventives

<i>Leycestria formosa</i>	o
<i>Phytolacca octandra</i>	o
<i>Rubus fruticosus</i>	o
<i>Tradescantia fluminensis</i>	o
<i>Ulex europaeus</i>	lm

o = occasional to rarely
seen

m = many seen

p = plentiful throughout

l = locally

fl = flowering 1. (11-9-77)
2. (27-11-77)

Additions

<i>Oplismenus undulatifolius</i>	lp
<i>Polystichum richardii</i>	o
<i>Lycopodium billardieri</i>	o
<i>Dendrobium cunninghamii</i>	o

A. J. Dakin

Oct. 1979

Some notes Clevedon Scenic Reserve.

Fine stands of Tāraire in this Reserve - almost continuous canopy in places with few understorey plants - old stumps (Puriri)? seen in Tāraire forest.

Kauri groves in several places & enclaves in the surrounding Tāraire forest.

Open grassland/shrubland area near ^{highest} ~~upper~~ point in Reserve sign of grazing here with cattle (quite recent) seems to have been browsed heavily by stock cattle - sheep and feral goats. One mob of goats seen on 11/9/77 towards W. side of Reserve, also in neighbouring property. Opossums present.

Fences good on S. side where a new fence has been erected only fair in N & E. - extremely poor to non-existent on part S.W. & W. boundaries. Fences need much more attention to stop stock from entering Reserve.

Very steep slopes on W. of Reserve c. 40° + on one S.W. face. Much eroded streambanks with few ferns or streamside plants rubble rock close to surface and subject to creep. Goats accentuate the erodibility of these soils. P scarcity of plants such as Asplenium Blechnum & Elatostema. Goats need to be eliminated to allow regeneration. As example of erodibility mud splash noted over leaves of ground plants along stream banks & earthflows present.

Also, a problem is light usage of Reserve by groups such as Scouts, Cubs etc. much sign of 'trails', bivvy's, cut punge's etc especially close to Camp Sladden - pressure and damage to Reserve is less as one gets away from the camp area (as would be expected.)

Plants that would normally be expected to be plentiful (as they are in Reserves where public access - animal entry is light) are here occ. or rare. Forest floor very open and quite cold with wind funnelling thru.

Natural Taraire forest has a dense canopy and usually open underneath but not as pronounced as this.

Tracks would be detrimental in this Reserve but if built should be kept only on main ridge, not constructed in unstable gullies.

Would be far more beneficial at this stage to put money and effort into completing boundary fences to exclude stock - and get rid of goats. + some better control on public activity especially near the camp.

Noted one large Kalikatea on Lillslope in Tarairi forest (c. 1m diam b.l.) also a large Nestegis lanceolata (30cm d.b.l.)

Bulbophyllum tuberculatum on Kalikatea mainly upper branches, some on trunk low down. The ridge is quite open here with Cyatba dealbata Puriri Nikau Cordyline australis and Kauri further down the ridge.

A fine Reserve but needs more care and attention to preserve its qualities, and rare and unusual plants. A real asset to Clevedon and South Auckland District. H.R. McKenzie took a special interest in this Reserve and campaigned repeatedly on the goat and stock question.

A.J. Dakin

Oct. 1979