Objective:

- *To ensure this Management Plan is kept under review to reflect the needs of current and future users and to be consistent with current best practice management procedures.*

Policies:

4.33.1 Any change or amendment, not involving a comprehensive review of the reserve's Management Plan, shall be made by adopting the procedures specified in Section 41(9) of the Reserves Act 1977.

4.33.2 The Reserve Management Plan shall be kept under continuous review as laid down in Section 41(4) of the Reserves Act 1977 and shall be operative from the date of signing for a period of ten years, at which time it will be completely reviewed.

4.34 DEVELOPMENT AND CHANGE

4.34.1 *Requests for Development on Reserves*

Reserves are created principally for the provision and preservation of open space and natural areas. Some buildings and structures such as changing rooms, toilets, clubrooms, car parks and fences are considered necessary for the enjoyment and full utilisation of reserves and are allowed for in the Reserves Act 1977.

The landscape character of a reserve contributes to and enhances the City's environment and impacts on reserve users, reserve neighbours and people passing by. While certain activities and buildings are permitted on reserves it is important to ensure that the effects of any structure or use does not impact negatively on reserve values, reserve users and reserve neighbours.

When considering an application to develop or change part of a reserve, Council will take into account the existing character of the reserve, including:

- The existing and potential use of the reserve.
- The natural and built environment.
- The surrounding landscape and the use of neighbouring land.
- The purpose and classification of the reserve under the Reserves Act 1977 and the management objectives stated in the current Reserve Management Plan.

Objectives:

- *To protect and enhance the open space, landscape and historical values of the reserve while providing adequate facilities for recreation and play.*
- *To ensure that development is appropriate to the reserve and that new developments complement and enhance the existing character of the reserve.*

- *To provide and maintain well designed and appropriately located buildings and structures in the reserve to improve utilisation and add to the enjoyment of the reserve by its users.*

- *To ensure that all reserve facilities are provided and maintained to an appropriate standard that meets public health and safety requirements and contributes to the attractiveness of the reserve.*

- *To ensure the costs associated with any development by/for a specific user group are met by that group.*

Policies:

4.34.1.1 The number of buildings and structures on the reserve will be limited to a level which facilitates the safe and appropriate use, protects the open space and natural amenity values, while being compatible with the purpose and classification of the reserve.

4.34.1.2 Public safety, public benefit and the character of the environment should be taken into account when planning the development of buildings, structures and associated landscaping.

4.34.1.3 The construction of any new buildings or extensions to existing buildings is not permitted unless anticipated in the current Management Plan and may be subject to a review or amendment to the Management Plan.

4.34.1.4 The design of the proposal shall be subject to Council approval and shall be in keeping with and complement the surroundings. Buildings and structures shall be placed with regard to reserve values, views and proximity to access points.

4.34.1.5 Exterior colour schemes of buildings and structures shall be approved by Council. The painting and creation of murals (not advertising) on buildings and structures may be considered on submission of a copy of the design and proposed colour scheme to Council.

4.34.1.6 The development shall be designed in a way that limits the opportunity for vandalism.

4.34.1.7 The development will be designed, where practical and feasible, to meet the current national standard and design criteria for access for people with disabilities.

4.34.1.8 The lease or licence to occupy agreement will define the obligations of the building owners on reserve land when the building is no longer required or the club has disbanded. These include removal or disposal of the building and facilities, or on-selling of the building to an approved recreational activity. Any outcome of this will be to the approval of Council.

4.34.1.9 Development plans are required for all development proposals for structures, facilities or buildings on the reserve (including alterations and extensions to existing buildings) and will include an assessment of effects. In particular the proposal should address how adverse effects on the values of the reserve will be avoided, remedied or mitigated. The development plan shall include:

(a) The location and design of proposed buildings, structures and landscaping including any car parking, lighting, fences and signage and the extent of the area required.
(b) Details of the size, scale, visual impact and relationship of the proposal to the surroundings.
(c) Any new building requirements as part of the development, or the changed use of existing buildings. Indicate any alterations required for existing buildings.
(d) Details of any known or potential liabilities associated with any existing building or structure being added to or modified.
(e) Any likely effects (adverse or otherwise) of the proposal on the landscape, environment and reserve users or reserve neighbours including visibility into and through the reserve and public safety.
(f) Details of any change or removal of any existing trees or vegetation.
(g) Details of any drainage and earthworks required and disruption to drainage patterns. Full restoration of disturbed landform during construction and landscaping and compliance with relevant legislation is the responsibility of the applicant.
(h) Details of any change or disruption to network utility infrastructure and details of infrastructure required as part of the development.
(i) Details of any specific landscaping requirements - species, screening or shelter.
(j) Consideration of existing users (both formal and informal) and the impact of this proposal on them. Any issues of public access, thoroughfare and egress on reserves and into any buildings and the loss of any open space including during construction phase.
(k) Details of any discussions with existing user groups.
(l) Anticipated user numbers and the times of use.
(m) Details of anticipated life of the structure and future maintenance requirements.
(n) Details as to who will be responsible for all future maintenance and insurance for the buildings and structures. Acknowledgement of the club or group's responsibility if or when the building is no longer required or if the club disbands.
(o) Details of the anticipated completion date and any plans to stage the development.
(p) Any other matters arising as determined by Council.

5.0 FUTURE DEVELOPMENT

A Reserve Management Plan is developed to reflect current reserve use and reserve values. A Management Plan should also highlight anticipated future development or change to the reserve and the likely impact a development will have on reserve users, reserve values and reserve neighbours. Any development not anticipated in, or meeting the policies of the current Reserve Management Plan, will require an amendment to the Management Plan.

Any future development at the reserve shall only be to the extent which is in accordance with the overall management objectives and policies and subject to meeting the requirements defined in 4.34.1 - Requests for Development on Reserves.

Before any development is implemented, it must be established that there is a need for such development and that what is proposed will be of benefit to the reserve and to those using it.

5.1 PROPOSED REMOVAL OF RESERVE STATUS FROM PARTS OF SANDY POINT DOMAIN

Council at its meeting on 24 July 2012 has resolved to proceed with the removal of reserve status from those parts of the Sandy Point Domain occupied by The Cabbage Tree Restaurant and the Beach Road Camping Ground on Dunns Road, thereby freeholding those areas.

Council also at the same meeting, resolved to proceed with the production of a draft Management Plan for Sandy Point, for public consultation purposes.

Removal of the reserve status will require further consultation and the approval of the Minister of Conservation before it can proceed.

At this stage, Council is are seeking feedback from the public and affected parties via this draft Management Plan on this proposal.

Plan showing the two separate leased areas wishing to freehold

5.2 LAND APPLICATION OF BIOSOLIDS AT SANDY POINT

Council proposes to apply biosolids to very sandy soil in the Christies Track area of Sandy Point. This area had previously been leased by Council for grazing purposes, but the leases have now been terminated and it is planned to develop the area with native plantings for recreational use. Biosolids application will improve soil condition and provide an improved environment for the planting programme.

5.2.1 *Proposed Sandy Point Biosolids Application Site*

The proposed biosolids application site is shown on the plan below, and is approximately 42 ha in area. It is located between Christies Track and the Southland Golf Club golf course, approximately 200 m from Oreti Beach.

This proposal will be subject to a resource consent application to Environment Southland. There would be up to three biosolids applications over the area over a ten year period. Each application will take two to three weeks, involving the transport of biosolids by truck from the Clifton Wastewater Treatment Plant, and spreading using agricultural machinery. Biosolids application would be at intervals of one to three years, depending on the volumes transported and are covered with each application.

Proposed Biosolids Application Area - Sandy Point

6.0 APPENDICES

6.1 APPENDIX 1 - VEGETATION LIST OF SANDY POINT DOMAIN

This list incorporates those studies made by earlier workers in the field, as well as that by L J Metcalf, made from 1979 onwards. The first person to record a list of some of the plants growing in Sandy Point Domain was C M Smith in 1924.

Smith was a forester working for the New Zealand Forest Service and, in his report on Sandy Point Domain Afforestation Scheme; he mentioned some of the principal or more noteworthy species to be found in the area.

He was followed by J E Holloway in about 1926 and an amateur botanist, F S Lokan, who botanised the area from the 1930s to the 1950s, compiling a comprehensive list of the indigenous plants growing in Sandy Point Domain.

In 1973 Diane J Lucas undertook a landscape appraisal of Sandy Point Domain, in which she listed several previously hitherto unrecorded species. More recently (in 1976), C G Robertson compiled a supplementary list which extended the number of species observed there.

During the course of numerous visits to the area over the past ten years, L J Metcalf has further extended the number of species recorded for the area.

This list differs from all previous lists in that the adventive flora and some of the lower orders for plants have also been recorded. So far the fungi, lichens and mosses have been only superficially recorded.

S	Denotes species recorded by C M Smith, 1924
H	Denotes species recorded by J E Holloway Ca. 1926
+	Denotes species recorded by F W Lokan
L	Denotes species recorded by D J Lucas
R	Denotes species recorded by C G Robertson
!	Denotes species recorded by L J Metcalf
*	Denotes species recorded by Lokan and which are of uncertain status

Fungi

!	Aseroe rubra
!	Clathrus cibarius
!	Geastrum sp
!	Paurocotylis pila
!	Weraroa rubra

Lichens

!	Ramalina linearis
!	Stereocaulon ramulosum
!	Sticta latifrons
!	Teloschistes sp

Musci

!	Cyathophorum bulbosum
!	Hypoptergium navae-seelandiae
!	Ptychomnion aciculare
!	Thuidopsis furfosa

Psilopsida
Psilotaceae

!	Tmesipteris sp	
Lycopsida		
Lycopodiaceae		
+	Lycopodium billardiera	
+	Lycopodium scariosum	
!	Lycopodium volubile	
Filicales		
Ophioglossaceae		
!	Botrychium australe var. millefolium	
+!	Ophioglossum coriaceum	
Hymenophyllaceae		
+	Hymenophyllum bivalve	
!	Hymenophyllum multifidum	
!	Hymenophyllum sanguinolentum	
Dicksoniaceae		
!	Dicksonia fibrosa	Wheki ponga
!	Dicksonia squarrosa	Wheki
Polypodiaceae		
+!	Phymatodes diversifolium	
!	Pyrrosia serpens	
Grammitidaceae		
+!	Ctenopteris heterophylla	
Dennstaediaceae		
+*	Hypolepis distans	
+!	Hypolepis millefolium	
Pteridaceae		
+!	Histiopteris incisa	Cut leaf bracket
+!	Pteridium aquilinum var. esculentum	Bracket
Aspleniaceae		
+!	Asplenium bulbiferum	Hen and Chicken fern
+!	Asplenium flabellifolium	
+!	Asplenium flaccidum	
!	Asplenium flaccidum x scleroprium	
+!	Asplenium hookerianum	
!	Asplenium lyallii	
+!	Asplenium oblongifolium	
R!	Asplenium scleroprium	
Blechnaceae		
+!	Blechnum capense	
+*	Blechnum capense var.	
+!	Blechnum discolor	Crown fern or pio pio
+!	Blechnum fluviatile	
+!	Blechnum minus	
+!	Blechnum penna-marina	Alpine hard fern
+	Blechnum vulcanicum	
Dryopteridaceae		
!	Dryopteris felix-mas	Male fern
+!	Polystichum vesititum	
+!	Polystichum richardii	
!	Rumohra aiantiformis	
Adiantaceae		
!	Pellaea rotundifolia	
Spermatophyta		
Gymnospermae		
Podocarpaceae		

S+!	Dacrydium cuprerssinum	Rimu
+!	Podocarpus dacrydiodes	Kahikatea
S!	Podocarpus ferrugineus	Miro
S+!	Podocarpus hallii	Hall's totara
S+!	Podocarpus spicatus	Totara
S+!	Podocarpus totara	Totara
Angispermae		
Monocotyledonaea		
Juncaginaceae		
L!	Zostera muelleri	
Hydrocharitaceae		
!	Lagarosiphon major	
Potamogetonaceae		
!	Potamogeton cheesemanii	
Gramineae		
S!	Ammophila arenaria	
!	Agropyron repens	
!	Anthozanthum odoratum	
!	Bromus sp	
S+!	Cortaderia richardii	Toe toe
S+!	Chionochloa rubra	Red tussock
!	Dactylis glomerata	
!	Echinopogon ovatus	
!	Festuca arundinacea	
S L	Festuca littoralis	
!	Festuca novae-zelandiae	
+!	Hierochloe redolens	
!	Holcus lanatus	
!	Hordeum murinum	
+!	Poa cita	Silver tussock
!	Puccinellia novae-zelandiae	
!	Puccinellia stricta	
!	Spartina anglica	
L	Spartina townsendii	
Liliaceae		
+!	Astelia fragrans	Bush lily
Agavaceae		
S+!	Cordyline australis	Cabbage tree
S+!	Phormium tenax	New Zealand flax
Lemnaceae		
!	Lemna minor	
Juncaceae		
+!	Juncus bufonius	
+!	Juncus pallidus	
+*	Luzula campestris	
!	Luzula picta var. picta	
Restoniaceae		
R!	Leptocarpus similis	
Iridaceae		
!	Crocosmia x crocosmiiflora	
+!	Liberta ixioides	New Zealand iris
R!	Libertia peregrinans	
Orchidaceae		
+*	Caladenia minor	
+!	Chiloglorris cornuta	

+!	Corybas macranthus	
+!	Corybas trilobus	
+!	Drymoanthus adversus	
+!	Earina autumnalis	Raupeka
+!	Earina mucronata	
+!	Gastrodina sp aff sesamoides	
+	Microtis unifolia	
!	Prasophyllum colensoi	
+	Pterostylis banksii	Greenhood orchid
+H	Pterostylis mutica	
!	Pterostylis sp	
+	Thelmitra longifolia	
Cyperaceae		
+!	Carex comans	
!	Carex demissa	
+	Carex dipsacea	
+!	Carex geminata	
+*	Carex leporina	
+	Carex pumila	
L!	Carex secta	Niggerhead
R!	Carex sinclairii	
R	Carex trifida	
S+	Desmochoenus spiralis	Pingao
!	Eleocharis acuta	
+!	Scirpus cernuus	
H	Scirpus nodosus	
+!	Scirpus pungens	Three-square rush
!	Uncinia rubra	
!	Uncinia sp	
!	Uncinia uncinata	
Dicotyledoneae		
Winteraceae		
+!	Pseudowintera colorata	Horopito
Ranunculaceae		
S+!	Clematis foetida	
S+!	Clematis paniculata	Puwananga
!	Clematis vitalba	Traveller's joy
+!	Ranunculus acaulis	
!	Ranunculus drouetii	
!	Ranunculus flammula	
!	Ranunculus hirus	
!	Ranunculus repens	
Papaveraceae		
!	Papaver dubium	
Cruciferae		
!	Brassica nana	
!	Cakile edentula	
!	Capsella bura-pastoris	Shepherd's purse
!	Cardamine sp	
!	Diplotaxis muralis	
!	Lepidium desvauxii	Bushy peppercress
!	Matricaria matricaioides	
!	Nasturtium microphyllum	
!	Sisymbrium officinale	
Violaceae		

+!	Melicytus lanceolatus	
R!	Viola vunninghamii	
Crassulaceae		
!	Sedium acre	
+!	Tillaea moschata	
Droseraceae		
+	Drosera pygamea	
+	Drosera spathulata	Sundew
Aizoaceae		
!	Disphyma clavellatum	
R!	Tetragonia trigyna	New Zealand Spinach
Caryophyllaceae		
!	Cerastium sp	
!	Montia perfoliata	
!	Sagina procumbens	Pearl wort
R	Scleranthus uniflorus	
!	Stellaria gracilenta	
!	Stellaria media	Chickweed
Polygonaceae		
R	Muehlenbeckia axillaris	
S+!	Muehlenbeckia australis	Pohuehue
S	Muehlenbeckia complexa	
!	Polygonum aviculare	
!	Rumex acetosella	Sorrel
!	Rumex crispus	Curled dock
!	Rumex obtusifolius	Broad-leaved dock
Chenopodiaceae		
!	Atriplex buchananii	
!	Atriplex triangulare	
L!	Salicornia australis	
Geraniaceae		
!	Geranium microphyllum	
R	Geranium sessiliflorum	
Haloragaceae		
+!	Gunnera albocarpa	
+	Gunnera arenaria	
+	Gunnera prorepens	
!	Haloragis depressa	
!	Myriophyllum elatinoides	

Note: Lucas records Gunnera hamiltonii but there is no record of it ever having been found on Sandy Point. The type locality is on the opposite side of the Oreti River, from Sandy Point, and she obviously made the record in error.

Onagraceae		
!	Epilobium erectus	
!	Epilobium nummularifolium	
!	Epilobium pallidiflorum	
S+!	Fuchsia colensoi	
S+!	Fuchsia excorticata	Kotukutuku
!	Fuchsia perscandens	
Callitrichaceae		
+!	Callitriche stagnalis	
Thymelaeaceae		
+	Pimelea arenaria	
S R	Pimelea lyallii	
Coriariaceae		

S!	Coriaria sarmentosa	Tutu
Tropaeolacea		
!	Tropaeolum speciosus	Flame creeper
Pittosporaceae		
!	Pittosporum tenuifolium ssp colensoi	Kohuhu
Myrtaceae		
S+!	Leptospermum scoparium	Manuka
+	Myrtus obcordata	
S+!	Myrtus pedunculata	Rohutu
Hypericaceae		
!	Hypericum androsaemum	St John's wort
Elaeocarpaceae		
S+!	Elaeocarpus hookerianus	Pokaka
S+!	Aristotelia serrata	Wineberry
Malvaceae		
!	Plagianthus divaricatus	Shore ribbon wood
	Plagianthus regius	Ribbon wood
Cunoniaceae		
S!	Winmannia racemosa	Kamahi
Escalloniaceae		
S+!	Carpodetus serratus	Putaputaweta
Rosaceae		
H	Acaena microphylla	
+	Acaena sanguisorbae	Biddy biddy
!	Acaena viridior	Biddy biddy
+!	Potentilla anserionoides	
+*	Rubus australis	Bush lawyer
!	Rubus cissoids	Bush lawyer
S!	Rubus fruticosus	Blackberry
S+!	Rubus schmidelioides	
Leguminosae		
S	Carmichaelia sp	
S!	Cytisus scoparius	Broom
!	Lotus pedunculatus	
!	Lupinus arboreus	Tree lupin
S	Sophora microphylla	Kowhai
!	Trifolium medium	
!	Trifolium repens	White clover
S!	Ulex europaeus	Gorse
!	Vicia cracca	Vetch
Moraceae		
!	Paratrophis microphylla	Turepo
Urticacea		
!	Australina pusilla	
!	Urtica incisa	Singing nettle
Icacinaceae		
!	Pennantia corymbosa	Kaikomako
Loranthaceae		
+!	Loranthus micranthus	Mistletoe
R	Tupeia antarctica	
Rhamnaceae		
+!	Discaria toumatou	Wild Irishman
Rutaceae		
!	Melicope simplex	
Araliaceae		

+!	Pseudopanax colensoi	
S+!	Pseudopanax crassifolius	Lancewood
!	Pseudopanax edgerleyi	
!	Pseudopanax simplex	
+!	Schefflera digitata	Pate
Cornaceae		
!	Corokia cotoneaster	
S+!	Griselinia littoralis	
Salicaceae		
!	Salix alba var vitellina	Golden Willow
!	Salix caprea	Goat Willow
Umbelliferae		
+	Anistome aromatica	
+!	Apium australe	New Zealand celery
!	Centella uniflora	
!	Conium maculatum	Hemlock
H	Hydocotyle heteromeria	
!	Hydocotyle moschata	
!	Hydocotyle novae-zelandiae	
	Hydocotyle novae variety	
L!	Lilaeopsis novae-zelandiae	
!	Scandix pecteren-veneris	
!	Schizeilema trifoliolatum	
Resedaceae		
!	Reseda luteola	
Epacridaceae		
S+!	Cyathodes fraseri	
+!	Cyathodes juniperina var oxycedrus	
+	Dracophyllum longifolium	
Myrsinaceae		
S+!	Myrsine australis	Mapou
Apocynaceae		
S+!	Parsonia heterophylla	Kaihua
Caprifoliaceae		
L!	Sambucus nigra	Elder
Rubiaceae		
+	Coprosma acerosa	
!	Coprosma areolata	
+	Coprosma foetidissima	
S+!	Coprosma lucida	Karangu
S+!	Coprosma parviflora	
!	Coprosma propinqua	
!	Coprosma rhamnoides	
+	Coprosma rotundifolia	
+	Coprosma rubra	
!	Galium aparine	Cleavers
!	Galium sp possibly G tenuicaule	
R!	Nertera balfouriana	
!	Nertera dichondrifolia	
!	Nertera setilosa	
+	Nertera sp	
Compositae		
!	Achillea millefolium	Yarrow
!	Bellis perennis	Lawn daisy
S+	Cassinia fulvida	Golden tauhinu

!	Cassinia vauvilliersii	Cottonwood
+!	Celmisia gracilenta	
!	Chrysanthemum leucanthemum	Oxeye daisy
!	Cirsium arvense	Californian thistle
!	Cirsium vulgare	Scotch thistle
R!	Cotula coronopifolia	
H	Cotula perpusilla	
+	Cotula squalida	
!	Cotula traillii ssp pulchella	
!	Cotula sp	
!	Crepis capillaris	Hawksbeard
!	Gnaphalium collinum	
+!	Gnaphalium luteo-album	
+*	Gnaphalium uliginosum	
+!	Helichrysum bellidioides	
!	Helichrysum filicaule	
!	Hypochaeris radicata	Catsear
!	Lactuca sp	
!	Lagenifera strangulata	
!	Matricaria inodora	Scentless chamomile
+	Raoulia glabra	
+!	Raeulia hookeri	
H	Raoulia hookeri var apice-nigra	
+	Raoulia tenuicaulis	
!	Senecio biserratus	
!	Senecio elegans	
!	Senecio glomeratus	
!	Senecio jacobaea	Ragwort
+!	Senecio minimus	
!	Sonchus asper	Rauriki
!	Sonchus olearaceus	Sow thistle
Gentianaceae		
!	Erythraea centaurium	
S+	Gentiana saxosa	Shore gentian
Primulaceae		
+!	Samolus repens	
Plantaginaceae		
!	Plantago coronopus	
!	Plantago mahor	Broadleaved plaintain
!	Plantago species	
	Plantago triandra	
Campanulaceae		
+!	Wahlenbergia gracilis	
Goodeniaceae		
L!	Selliera radicans	
!	Reseda luteola	
Lobeliaceae		
+!	Pratia angulata	
Boraginaceae		
!	Myosotis laxa	Water forget-me-not
Solanaceae		
!	Solanum dulcamara	Bittersweet
!	Solanum laciniatum	Poro poro
!	Solanum tuberosum	Potato
Convoluvlaceae		

!	Calystegia sepium	Convolvulus
R	Calystegia laciniatum	Shore convolvulus
+	Dichondra repens	Mercury Bay weed
Scrophulariaceae		
!	Digitalis purpurea	Foxglove
+	Euphrasia repens	
!	Gratiola sexdentata	
R	Hebe elliptica	Kokomuka
S+!	Hebe salicifolia	Kotomiko
+	Mazus pumilio	
+!	Mazus radicans	
R!	Mimulus repens	
!	Parentucellia viscosa	Tar weed
!	Verbascum virgatum	Moth mullein
Lentibulariaceae		
H	Utricularia monanthos	
!	Prunella vulgaris	Self heal

Trees and shrubs still surviving on the site on Rask's Point farm are:

Pinus radiata	Monterey pine
Cupressus macrocarpa	Monterey cypress
Eucalyptus globulus	Blue gum
Taxus baccata	Yew
Crataegus monogyna	Hawthorn
Fuchsia magnellanica var macrostemma	
Pyrus communis	Pear
Buddleia globosa	

6.2 APPENDIX 2 - INVERTEBRATES

6.2.1 *Mollusca*

Not a great deal is known about the shellfish found in the waters around Sandy Point, apart from the fact that the number of species is relatively limited.

Certain species do however abound and the commonest by far is the mud snail (*Amphibola crenata*) which is found on most of the mud flat areas of the New River Estuary.

It is extremely important in the ecology of the New River Estuary as, along with the cockle (*Chione stutchburyi*), it is the principal food for some of the wading birds which inhabit the estuary. The pied oyster-catcher is known to consume enormous quantities each day.

The large wedge shell (*Macromona liliana*) also occurs in reasonable quantities. It lives buried in the sand at depths of up to 15cm.

Other species of mollusc may occur in the estuary but none have been commonly observed around the Sandy Point shore.

The pipe (*Paphies australis*) was once widespread in the estuary but its numbers have been drastically reduced by sedimentation and pollution.

6.2.2 *Crustacea*

Two species of mud crab have been observed, the commonest being *Helice crassa*. It occurs mainly near the shoreline in the mid-littoral to upper-littoral zone, particularly where there is sheltering vegetation such as the rush *Scripus pungens*. Mud crabs probably form part of the diet of the white-faced herons which may be seen feeding on the mudflats at various times.

6.2.3 *Annelida*

One little known component of the estuarine fauna is the polychaete worms. There are at least two species in the estuary but there has been no detailed investigation to find out just how many species do occur. The polychaete worms occur in the sand which underlies the top layer of mud slurry.

Nicon aestuariensis appears to be the most common species. It is about the size of an earth worm and is recognised by its pale pink colour, with a red blood line running the length of its body.

The other species is *Glycera Americana* which is a pale colour and is more pointed at the head.

Polychaete worms form an important part of the diet of birds such as the pied oyster-catcher, pied stilt and bar-tailed godwit.

6.2.4 *Insects*

While no comprehensive survey of the insect fauna of Sandy Point has been done, it is obvious from the little bit of work that has been carried out that the area is probably quite rich in species.

During the summer months various species of butterfly may have been observed. The red admiral (*Bassaris gonerilla*) and the yellow admiral (*Bassaris itea*) are the two most conspicuous and they may be seen from early spring until late autumn.

The former, in particular, is probably limited in number by the small quantities of its food plant, stinging nettle, which occur in the Domain.

The copper butterfly (*Lycaena sp*) occurs mainly in grasslands and around areas where the *Muehlenbeckia* vine grows. It is not as common as might be expected, although no doubt it is greatly influenced by the seasons.

In certain open country locations the southern blue (*Zizinia otis ozxleyi*) can be seen flying close to the ground on sunny days. Its presence probably depends upon the existence of suitable food plants such as the clovers and lotus.

The tussock butterfly (*Argyrophenga antipodum*) is not uncommon in open country grassland situations where it may be seen drifting lazily and somewhat erratically over the grasses. This species and the copper butterfly are two ancient butterflies which support the theory of New Zealand's long separation from other land masses. Sufficient open country should be left in order to ensure their continuing presence in Sandy Point Domain.

A migrant species which, not infrequently, is observed at Sandy Point is the Australian painted lady (*Cynthia kershawi*). Numbers of this butterfly regularly cross the Tasman Sea and, in some years, they come across in hundreds. So far there is no positive evidence of their having bred in this country.

The conspicuous, diurnal, magpie moth (*Nyctemera annulata*) is a common sight over the summer months and its larvae, the woolly-bear caterpillars, may be seen feeding on native species of *Senecio* which are common in a variety of situations.

Of the other insects, even less is known. Numerous areas of water and swamp provide ideal homes for aquatic insects with both the scarlet damsel fly (*Xanthocnemis zealandica*) and the blue damsel fly (*Austrolestes colensonis*) being common around the lagoons and ponds.

Two of the larger dragon flies (*Procordulia*) may also be seen at times.

The Silver Lagoon and the swampy area surrounding it is probably the most important single aquatic habitat.

Stick insects are known to occur in the bush, the huhu beetle (*Prionoplus reticularis*) is common, particularly in the pine plantations, and at least one species of native mealy bug (*Coelostomidia sp*) has been observed.

One insect which makes its presence particularly noticeable over the summer months is the cicada. On any reasonably warm summer's day, the noise of the cicada's song fills the air in any of the bush areas. Many visitors mistakenly refer to cicadas as crickets.

At least one species of cave weta is common in forested areas.

A wide variety of insect habitats exist in Sandy Point Domain. They range from forest and shrub land to aquatic, swamp land, grassland and littoral. Fortunately, good representations of these habitats occur in the Environment Zone and, consequently, are quite well protected. However, individual habitat areas occur in other Zones and, where they are deemed to be significant, every effort should be made to retain them.

6.2.5 ***Habitat Areas***

The diversity of Sandy Point Domain and its environs provides a wide range of habitats, ranging from estuarine mudflats to sand dunes, wetlands and forest. The results of the survey carried out by Peter Hamill during the summer of 1987/88 are summarised below:

6.2.5.1 *Mudflats of the New River Estuary*

The mudflats of the New River Estuary host a variety of invertebrate fauna. The most commonly seen species is that of the mud snail (*Amphibola crenata*). However, when a shovel of mud is turned over, it is seen that two species of polychaete worms (*Nicon austurariensis* and *Glycera Americana*) are also very numerous. The whelk (*Cominella glandiformis*) is also found. It feeds mainly on the common cockle (*Chione stutchburyi*) and is also known to feed on the wedge shell (*Macromona liliana*) which is also present in the mudflats.

Many small tunnels are scattered over the mudflats in a random pattern. They are the home of the mud crab (Helice *crassa*). Further down the mud flats, another species of crab (*Macrophthalmus hirtipes*) is also found living in tunnels.

As the incoming tide moves up the mudflats, a species of marine Isopod (*Isocladus armalus*) may be seen moving around rapidly in search of food. Marine Amphipods, which are similar to the sand hoppers, can also be found moving with the encroaching tide.

6.2.5.2 *Sandy Areas of the New River Estuary and Oreti Beach*

The size and extent of Oreti Beach makes it a very important habitat for a variety of sand dwelling creatures. There is a very large tidal range over the beach, which results in a wide variety of animals occupying the area. When the tide is fully out, small holes which have slightly raised edges can be seen.

These holes are home to the ghost shrimp (*Callianassa filholi*) which is an orange and white crayfish-like animal.

Higher up the beach, the siphon holes of the toheroa (*Paphies ventricosa*) and the pipi (*Paphies australis*) may be seen.

At the upper limit of the tidal zone, in small burrows under logs of drift wood, the common sandhopper (*Talorchestia quoyani*) is found jumping in its very distinctive manner. The common swimming crab (*Ovalipes* catharus) occurs in the surf, just off the beach.

The sandy areas of the New River Estuary are located mainly near the junction of the Estuary and the open sea near Point One.

Living at the lower limit of the tidal zone, cockles (*Chione stutchburyi*) and mussels (*Mytilus plantatus*) are found. Cockles live in the substrate while the mussels are attached individually to small stones, which are used as anchors.

The green anemone (*Isactinia olivacea*) also attaches itself to small stones below the low tide level.

Deep in the sand of the mid tidal level, the formidable looking mantis shrimp (*Heterosquilla tricarinata*) lives in relatively large holes which extend to just above the normal surface of the beach, thus creating a small mound around the hole. The mantis shrimp lurks just below the mouth of the tube, waiting in ambush to seize any small animal which may move past. They are mainly nocturnal, very shy and therefore are rarely seen.

The lungworm (*Abarenicola affinis*) and the ribbon worm (*Glycera americanis*) are polychaetes which are found living in the sandy beaches of the New River Estuary.

The common cat's eye snail (*Turbo smaragdus*) and the snails (*Diloma subrostrata subrostrata* and *Melarhapa cinctra*) are also found feeding on seaweed in this area.

The modest barnacle (*Elmimius modestus*) is also present in the estuary.

6.5.3 *Sand Dunes*

The commonest species found in the sand dunes is the common sand hopper (*Talarchestia quoyoni*) which is found living under and feeding on seaweed, driftwood and the roots of marram grass.

Early in summer, March flies (*Dilophns nigrostigma*) are very numerous around the flowering lupins.

The bumble bee (*Bombus terrestris*) and the attractive orange, purple and yellow beetle (*Zorian minutum*) can also be seen feeding on the lupin flowers.

Ants (*Prolasius advena* and *Monomorium antarcticus*) are found living under the lupins along with the common slater (*Porcellio scaber*), the large black beetle (*Cilibe sp*) and the ground beetle (*Mecodema sp*).

Three species of centipede and two species of millipedes were found living in the sand dunes.

Eight species of spider (*Lycosa sp, Lycosa hilaris, Diea sp, Allotrochosa shavinslandi, Sidymella sp, Araneus subcompta* and *Araaneujs sp*) were found in the sand dunes.

Living amongst the flax bushes is the jumping spider (*Trite planiceps*).

Many more species are also likely to be present, including possibly the katipo spider.

The gorse-seed weevil (*Apion ulicis*), elephant weevil (*Rhynchodes ursus*) and weevil (*Etnalis spinicollis*) occur in the undergrowth.

During the summer months the almost deafening song of the cicada (*Melamipsalta cincta*) is also heard around the dunes.

Butterflies and moths found in the sand dunes include the tussock butterfly (*Argyrophenga antipodum*), cabbage white butterfly (*Pieris rapae*), common copper butterfly (*Lycaena salustis*), magpie moth (*Nyctemera annulata*), common grass moth (*Crambus flexuosellus*) and the porina moth (*Porina umbraculata*).

Two species of beetle live under the driftwood on the beach. They are the rove beetle (*Creophlus sp*) and the sand beetle (*Thelyphassa limbata*).

Other species present are:

- Shore earwig *Anisdabis littorea*
- Gad fly
- Gad fly hunter *Rhopalum carbonarium*
- European wasp *Vespula germanica*
- Ichneumon fly *Lissopimpla excelsa*
- Ranger dragonfly *Procordulia smithi*
- Hoverfly *Syrphus novaezealandiae*
- Sand fly *Austroimulium australense*
- Tachinid parasite *Hexamera alcis*

6.5.4 *Daffodil Bay Area*

This area has one of the most diverse habitats to be found in Sandy Point Domain. The habitats in this area include coastal scrub, ponds, swamp, open land, lupin covered sand dunes, pine forest and native forest.

The most interesting find in this area was that of a new species of spider. The spider, a member of the Agenidae family, was found living in a totara tree.

Other interesting finds include the Cicada (*Amphipsalta zealandica*) which is the largest and noisiest of the New Zealand Cicadas. It usually lives in areas of dense bush at higher altitudes than Sandy Point, where it occurs at sea level in relatively open *pinus* and totara bush.

In the *Pinus* plantations, the steel blue horn-tailed Borer (*Sirex noctilio*), a pest in pine plantations, is not uncommon. The larvae bore holes inside the trunk but fortunately mainly attack unthrifty trees. A parasite of the horn-tailed borer's larvae, the ichneumon fly (*Rhyssa persuasoria*) also occurs in the area.

Spiders found in the area include the following species: *Lycosa sp, Mynoglenes subola, Mynoglenes sp, Aranea atrihostuta, Tekella absidata, Neoramia sp, Epinsinus sp, Eriophora pustolosia, Clubiona huttoni, Photcomma sp, Laperousia blattifera, Dyarcyops orepukiensis, Pakaha insignita* and previously unidentified species from the families Salticidae, Tetragnathidae and Malkaraidae.

Species of moths and butterflies which occur include the tussock butterfly (*Argyrophenga antipodum*), the cabbage white butterfly (*Pieris rapae*), the common butterfly (*Lycaena salustius*), the red admiral (*Bassaris gonerilla*), the yellow admiral (*Bassaris itea*), the southern blue (*Zizinia otis oxleyi*), the magpie moth (*Nyctemera annulata*), the Porina moth (*Porina sp, Melanchra sp*), the common grass moth (*Crambus flexuosellus*), the flax notcher (*Persectania*

steropastis), the case moth (*Oeceticus omnivorus*) and the forest looper (*Tatsoma timora*).

Around the ponds and swampland, the red damsel-fly (*Xanthocnemis zealandica*) and the blue damsel-fly (*Austrolestes colensonis*) are common.

The yellow spotted dragonfly (*Procordulia grayi*) may be seen skimming over the surface of the water and the ranger dragonfly (*Procordulia smithii*) may be seen soaring high above the swamps on the sheltered sides of the trees.

Six species of weevil (*Pleosporius bullatus, Sharpius imitarius, Cacephatus inrertus*, the gorse seed weevil (*Apion ulicis*) and the elephant weevil (*Rhynchodes ursus*)) are also found in this area.

Other species are:

➢ Grass grub beetle	*Costelytra zealandica*
➢ Black cricket	*Nenobius sp*
➢ Grasshopper	*Paprides nitdus*
➢ Shield bug	*Peocilometic gravis*
➢ Borer beetle	*Andoium punctatum*
➢ Icheumon flies	*Lissopimpla excelsa and Netrelia producti*
➢ Stink bug	*Oncaontias vittatus*
➢ March fly	*Dilophns nigrostigma*
➢ Diving beetle	*Rhantus pulverosus*
➢ Water boatman	*Sigara arguta*
➢ Back swimmer	*Anisops wakefieldi*
➢ Hoverflies	*Melanostana fasciatus, Syrphus novaezealandiae and Tubitera tenar*
➢ Cranefly	*Zelandotipula novarae*
➢ Cicada	*Cicadetta scutellaris*
➢ Honey bee	*Apis mellifera*
➢ Bumble bee	*Bombus terrestris*
➢ Sand hopper	*Talorchestia sp*
➢ Slater	*Porcellio scaber*
➢ Drone fly	*Eristalis tenax*
➢ Fly	*Protoystricia alcis*
➢ White fly	*Aleurodes papillifera*
➢ Striped flesh fly	*Parasarcophagus milleri*
➢ House fly	*Musa domestica*
➢ Native blue bottle	*Calliphora quadrimaculata*
➢ Mosquito	*Ochilerotatrus subalbirostris*
➢ Spittle bug	*Philaenus trimaculatus*
➢ Manuka beetle	*Pyronota festiva*
➢ Ground beetle	*Mecodema sp*
➢ Huhu beetle	*Prionoplus reticularis*
➢ Bush centipede	*Hanseniella sp*
➢ Earwig	*Forficula auricularia*
➢ A species of rove beetle	

6.5.5 *Silver Lagoon*

The Silver Lagoon area is a very important and diverse habitat. Living on the stems of water weeds growing in the lagoon, four species of molluscs have been

recorded. They include a fresh water bivalve, the pea mussel (*Pisidum sp*), gastropods (*Gyraulus sp, Potamopyrgus sp*) and *Physastia sp*.

Two species of damsel-fly can be seen darting about the surface of the lagoon and its neighbouring areas, the common redcoat damsel-fly (*Xanthocnemis zealandica*) being the most common. The other is the blue damsel-fly (*Austrolestes colensonis*), the largest damsel-fly in New Zealand.

The larger yellow spotted dragonfly (*Procordulia grayi*) commonly darts over the surface of the lagoon, while the ranger dragonfly (*Procordulia smithi*) may be seen soaring in the breeze during the summer.

On the flax, the distinctive notches along the leaf margins indicate the presence of the flax notcher moth (*Persectania steropastis*).

On the leaves of the cabbage tree, a species of jumping spider (*Trite planiceps*) occurs.

Another species of spider (*Lycosa sp*) can be found floating on the surface of water.

In the water the large red water mite (*Eylais waikawae*) can be observed swimming between the stems of plants.

The diving beetle (*Rhantus pulverosus*), waterboatman (*Sigara arguta*) and the backswimmer (*Anisops wakefieldi*) are very common.

An uncommon form of Daphnia (*Daphnia carinata*), a variety of *cephalata*, which has not yet been fully described, is found living at the bases of the stems of water plants. This species has a large extension of the carapace above its head which is a response to the large numbers of boatmen and backswimmers found in the lagoon.

The tussock butterfly (*Argyrophenga antipodum*) and the grass moth (*Crambus fleuxuosellus*) are common in the surrounding areas.

6.5.6 *Kilmock Bush*

Kilmock Bush is essentially a stand of totara trees with an underlying carpet of bush lily and kowaowao which provides a rich habitat for many species of invertebrates.

The bush environment houses numerous flies. The bush fly (*Scaptia adren*) is one of the most often seen. The tachinid fly (*Protohystricia alcis*), drone fly (*Eristalis tenax*), striped flesh-fly (*Parasarcophagus milleri*), house fly (*Musa domestica*) and the native blue bottle (*Calliphora quadrimaculata*) are also present.

A species of ant (*Huberia striata*) lives in the undergrowth.

Spiders found in Kilmock Bush are *Diea ambara, Goyenia sp, Neoramia sp, Mamoea rota* and two undescribed species from the families Lycosidae and Theridiidae.

Several species of beetle were also recorded. They include the ground beetle (*Mecodema sp*), large black beetle (*Cilibe deyoensis, Philoneis sp*), brown beetle (*Costelytra zealandica*), the weevil (*Cacephatus incertus*), gorse seed weevil (*Apion ulicis*), borer beetle (*Anobium punctatum*) and the eleven-spotted ladybird (*Coccinella punctata*).

The small native black field cricket (*Nenobius sp*) is very numerous around the margin of the bush during the summer months.

A species of grass hopper is also found in this area.

The spittle bug (*Philaenus trimaculatus*) and the shield bug (*Poecilometic gravis*) are found on the grass surrounding the bush.

Other species present in Kilmock Bush:

- Common earwig — *Forficula auricularia*
- Bush centipede — *Hanseniella sp*
- Isopod — *Styloniscus sp*
- Red damsel-fly — *Xanthocnemis zealandica*
- Ranger dragonfly — *Procordulia smithii*
- Grass moth — *Crambus flexuosellus*
- Porina moth — *Porina umbraculata*
- Pale selidosema moth — *Selidosema panagrata*
- Forest looper — *Tatosoma timora*
- Stink bug — *Oncacontias vittatus*
- March fly — *Dilophns nigrostimga*
- Hover fly — *Melonostoma fasciatum* and *Syrphus novaeaealandiae*
- Crane fly — *Zealandotipula novarae*
- Cicada — *Cicadetta sp*

6.2.6 *List of the Invertebrates of Sandy Point Domain*

Mollusca		
Mudsnail	*Amphibola crenata*	Estuary
Mudsnail	*Diloma subrostra subrostra*	Estuary
Common whelk	*Cominella glandiformis*	Estuary
Marine snail	*Melarhapa cincta*	Estuary
Freshwater snail	*Gyraulus sp*	Lagoon
Freshwater snail	*Potamopyrgus sp*	Lagoon
Freshwater snail	*Physa sp*	Lagoon
Freshwater snail	*Pisidium sp*	Lagoon
Pipi	*Pahies australis*	Estuary
Cockle	*Chione stutchburyi*	Estuary
Mussel	*Mytilus plantatus*	Estuary
Wedge shell	*Marcomona liliana*	Oreti Beach/ Estuary
Toheroa	*Paphies ventricosa*	Oreti Beach
Crustaceans		
Mud crab	*Helice crassa*	Mudflats
Stalk-eyed crab	*Macrophthalmus Hirtipes*	Mudflats
Sandhopper	*Talorchestia quoyani*	Sand hills
Daphnia	*Daphnia carinata variety caphalata*	Lagoon

Isopod	*Styloniscus sp*	Bush
Ghost shrimp	*Gallianasca filholi*	Oreti Beach
Mantis shrimp	*Heterosquilla tricarinate*	Estuary/Sandy
Slater or wood louse	*Porcillia scaber*	Bush
Red water mite	*Eylais waikawae*	Lagoon
Modest barnacle	*Eliminius modestus*	Estuary
Insects		
Order: Odonata		
Red damsel-fly	*Xanthocnemis zealandica*	Lagoon/Swamp
Blue damsel-fly	*Austrolestes colensonis*	Lagoon/Swamp
Yellow spotted dragonfly	*Procordulia grayi*	Lagoon
Ranger dragonfly	*Procordulia smithi*	Lagoon
Family: formicidae		
Ant	*Prolasius advena*	Sand dunes
Ant	*Monomorium antarcticus*	Sand dunes
Ant	*Huberia striata*	Bush
Order: lepidoptera		
Tussock butterfly	*Argyophenga antipodum*	Open areas
Common copper butterfly	*Lycaena salustius*	Throughout area
Southern blue butterfly	*Zizinia otis oxley*	Throughout area
Cabbage white butterfly	*Pieris rapae*	Throughout area
Red admiral butterfly	*Bassaris gonerilla*	Throughout area
Yellow admiral butterfly	*Bassaris itea*	Throughout area
Magpie moth	*Nyctemera annulata*	Throughout area
Porina moth	*Porina umbraculata*	Throughout area
Common grass moth	*Crambus flexuosellus*	Throughout area
Pale selidosema	*Selidosema panagrata*	Bush
Common forest-looper	*Tatosoma timora*	Bush
Case moth	*Oeceticus omnivorous*	Bush
Flax notcher	*Persectania steropostis*	Lagoon

Brian Patrick, formerly of Invercargill, supplied the following list of rate moths which he has observed at Sandy Point:

- *Maoricrambus ancobolus*
- *Asaphodes sp nova*
- *Asaphodes araria*
- *Asaphodes stephanotis*
- *Eurythecta uana*
- *Circia metastica*
- *Protithana potmiras*
- *Meophyas paralosa*
- *Orocrambus lewisi*
- *Orthenches polita*
- *Declana herniane*
- *Metacrias strategica*
- *Tatosoma topia*

Order: Diptera and Hymenoptera		
Bumble Bee	*Bombus terrestris*	Throughout area
Ichneumon fly	*Lissopimpla excelsa*	Throughout area
Ichneumon fly	*Netelia producti*	Throughout area
Ichneumon fly	*Rhyssa persuasoria*	Plantations
Steel blue horntail borer	*Sirex noctilio*	Plantations
Honey Bee	*Apis mellifera*	Throughout area
European wasp	*Vespula germanica*	Throughout area

Gad fly		Throughout area
Gad fly hunter	*Rhopalum carbonarium*	Sand dunes
Hover fly	*Syrphus novaezealandiae*	Edge of bush
Hover fly	*Melanostoma fasciatus*	Edge of bush
Hover fly	*Tubifera tenax*	Edge of bush
Drone fly	*Eristalis tenax*	Bush
Tachnid	*Protohystricia akis*	Bush
Bush fly	*Scaptia adrel*	Bush
Striped flesh fly	*Parasarcophagus milleri*	Bush
Common house fly	*Musa domestrica*	Everywhere
Native blue bottle	*Calliphora quadrimaculata*	Bush
White fly	*Aleurodes papillifera*	Bush
Crane fly	*Zelandotipula novarae*	Bush
March fly	*Dilophus nigrostigma*	Everywhere
Mosquito	*Ochilevatotus subalbirostris*	Everywhere
Sand fly	*Austrosimulium australense*	Everywhere
Order: Hemiptera		
Waterboatman	*Sigara arguta*	Lagoon
Backswimmer	*Anisops wakefieldi*	Lagoon
Cicada	*Amphipsalta zealandica*	Bush
Cicada	*Melampsalta cincta*	Sand dunes
Cicada	*Cicadetta scutellaris*	Everywhere
Vegetable bug (shield bug)	*Poecilometic gravis*	Edge of bush
Shied bug	*Oncacontias vittatus*	Grass/bush
Spittle bug	*Philaenus trimaculatus*	Grass/edge of bush
Order: Coleoptera		
Diving beetle	*Rhantus pulverosus*	Lagoon
Weevil	*Pleosporius bullatus*	Bush
Weevil	*Sharpus imitarius*	Bush
Weevil	*Cacephatus incertus*	Bush
Weevil	*Etnalis spinicollis*	Sand dunes
Elephant weevil	*Rhynchodes ursus*	Bush
Gorse seed weevil	*Apion ulicis*	Gorse
Grass grub beetle	*Costelytra zealandica*	Grassland
Borer beetle	*Anabium punctatum*	Bush
Manuka beetle	*Pryonota festiva*	Bush
Ground beetle	*Mecodema sp*	Bush
Earwig	*Forficula aricuclaria*	Bush
Shore earwig	*Anisolabis littorea*	Sand dunes
Beetle	*Zorion minutum*	Flowering plants
Large black beetle	*Cilibe otagoensis*	Bush
Sand beetle	*Thelyphassa limbata*	Sand dunes
Rove beetle	*Creophilus sp*	Bush
Eleven spotted ladybird	*Coccinella 11-punctata*	Throughout area
Black beetle	*Philoneis sp*	Bush
Huhu beetle	*Prionoplus reticularis*	Plantations
	Orthenches polita	
	Declana herniane	
	Metacrias strategica	
	Tatosoma topia	
Miscellaneous Orders		
Bush centipede	*Hanseniella sp*	Bush
Ribbon worm	*Nicon aesturariensis*	Estuary

Ribbon worm	*Glycera Americana*	Estuary
Ribbon worm	*Abavenicola affins*	Estuary/Sand
Green anemone	*Isactinia olivacec*	Estuary
Marine isopod	*Isocladus armalus*	Estuary
Order: Araneae		
	Lycosa sp	Scrub
	Lycosa sp	Lagoon
	Lycos hilaris	Sand dunes
	Mynoglenes	Coastal scrub
Jumping spider	*Trite planiceps*	Flax
Orb web	*Araneus atrihastula*	Bush
	Tekella absidata	Bush-Totara
	Undefined species	Bush
	Undefined species	Bush dwelling
Harvestman	*Pantopsalis sp*	
	Neoramia sp (immature)	Bush
	Diaea sp	Sand dunes
	Episinus sp	Coastal scrub
	Allotrochosa schaunislandi	Sand dunes
Orb web	*Eriophora pustulosia*	
	Clubiona huttoni	Bush
	Sidymella sp	Sand dunes
New species	*Agelenidae*	Bush - Totara
	Mynoglenes subdola	Bush
	Pholcomma sp	Bush
	Laperousia blattifera	Bush
Common bush litter	*Teridiidae sp*	
	Clubiona convoluta	Otatara
Undefined species, New Zealand and Chile		Bush
	Dyarcyops orepukiensis	bush
Harvestman	*Pakeha insignita*	
	Phalangium opilio	
Order: Arachnida		
	Lycosa sp undefined	Kilmock bush
	Araneus subcompta	Sand dunes
	Diea ambara	Kilmock bush
	Lycosa sp	Cabbage tree
	Trite planiceps	Flax bush
	Cobweb spiders	Kilmock bush
	Goyenia sp	Kilmock bush
	Aranaeus sp	Sand dunes
	Neoramia sp	Cabbage tree

6.3 APPENDIX 3 - LIST OF BIRD SPECIES RECORDED IN SANDY POINT DOMAIN AND ADJACENT WATERS

Family *Spheniscidae* – Penguins

Yellow-eyed penguin	*Medadyptes antipodes*	An occasional visitor usually when in moult; breeds in Southland coasts.
Southern blue penguin	*Eudyptula minor minor*	An occasional visitor; usually in moult; breeds along the coast.

Family *Procellariidae* – Petrels, Shearwaters and Fulmars

Antarctic Petrel	*Thalassoica antarctica*	Rare visitor

Family *Phalacrocoracidae* – Shags

Black Shag	*Phalacrocorax carbo*	In moderate numbers throughout the year, feeding and resting; nearest breeding ground is Awarua Swamp.
Pied Shag	*P varius varius*	Small numbers, feeding and resting.
Little Shag	*P melanoleucos brevirostris*	Abundant throughout the year; breeds in Awarua Swamp.
Stewart Island Shag	*Leucocarbo carunculatus chalcocnotus*	Good numbers of both bronze and pied phases feed in the estuary throughout the year; nearest known breeding place is at entrance to Bluff Harbour.
Spotted Shag	*Stictocarbo punctatus*	Up to 50 birds at most times of the year.

Family *Ardeidae* – Herons, Egrets and Bitterns

White-faced Heron	*Ardea novaehollandiae*	Resident and breeding on tall trees; up to 220 birds throughout the year; regular mudflat feeders as well as in the ponds and lagoons.
White Heron	*Garzetta alba*	An occasional visitor.
Little Egret	*E garzetta*	An occasional visitor.
Cattle Egret	*Bulbulcus ibis*	A regular visitor to adjacent paddocks.
Australasian bittern	*Botaurus poiciloptilus*	Seen occasionally in swampy areas, lagoons and ponds; breeding; now very rare in Southland due to decreased wetland habitat.

Family *Threskiornithidae* – Ibises and Spoonbills

Glossy ibis	*Plegadis falcinullus*	Small flocks straggling from Australia sometimes use the estuary and environs, remaining for some weeks.
Royal spoonbill	*Platalea region*	An occasional visitor.

Family *Anatidea* – Swans, Geese and Ducks

Black swan	*Cygnus atratus*	Resident and now breeding; moult on estuary; apparently not as common as formerly. Waituna Lagoon, Awarua Bay and Invercargill Estuary are the three principal feeding areas for this species in Southland.
Canada goose	*Branta Canadensis*	Seen occasionally in small numbers.
Paradise shelduck	*Tadoma variegata*	Small numbers appearing again regularly after absence of many years, as waterfowl management encourages re-establishment of this species in Southland; breeding.
Mallard	*Anas platyrhincos*	Resident and breeding; the predominant waterfowl species in the area; common in large numbers through all parts of the estuary.
Grey duck	*A superciliosa*	Resident in small numbers.
Grey teal	*A gibberifrons*	This nomadic species is regularly seen among other waterfowl.
Brown teal	*A chlorotis*	Recorded; extremely rare.
New Zealand scaup	*Aythya novaeseelandiae*	Silver lagoon – rare but apparently increasing.
New Zealand shoveler	*A rhynchotis*	Resident and breeding, moderate numbers.

Family *Accipitridae* – Harriers

Australasian harrier	*Circus approximans*	Resident, breeding and roosting in swamplands.

Family *Phasianidae* – Pheasants and Quails

California Quail	*Lophortyx californicus*	Recorded as resident and breeding but it is quite likely that feral cats have caused the disappearance of this species.
Ring-necked pheasant	*Phasiaanus colchicus*	Not now known to exist and was probably never established on Sandy Point.

Family *Rallidae* – Rails

Marsh crake	*Porzana pusilla*	Resident and breeding in marginal vegetation; wetland habitat essential for survival of this diminishing species is decreasing as land drainage occurs.
Pukeko	*Porphyrio melanotus*	Resident and breeding in moderate numbers, apparently increasing.

Family *Haematopodidae* – Oystercatchers

South Island pied oystercatcher	*Haematopus finschci*	Resident; breeds on adjacent farmland; generally abundant. Seasonal movement of species results in autumn and winter flocks of up to 5,000 birds, feeding in the estuary and environs, which thus play an important part in the population dynamics of this species.
Variable oystercatcher	*Porphyrio melanotus*	Resident and breeding in small numbers, in the black phase of this polymorphic species.

Family *Columbidae* – Pigeons

New Zealand pigeon	*Hemiphaga novaeseelandiae*	Present throughout the year and breeding in the bush; particularly noticeable during the latter part of the winter and early spring.
Shining cuckoo	*Chalcites lucidus*	Generally arrives in late September/early October and may be heard in both bush and pine plantations; breeding.
Long-tailed cuckoo	*Eudynamis taitensis*	Recorded by D Lucas, but it would appear to be a rather unlikely recording.

Family *Strigidae* – Owls

Morepork	*Ninox novaeseelandiae*	Resident and breeding in bush areas; generally an unobtrusive bird but may be heard and occasionally seen in the evenings.
Little owl	*Athene noctua*	Resident and breeding in a variety of habitats.

Family *Charadriidae* – Plovers

Spur-winged plover	*Lobibyx novaehollandiae*	Resident and breeding on adjacent wetland and shingle; uses estuary as feeding ground regularly throughout the year.
Pacific golden plover	*Pluvialis fulva*	Trans-equatorial migrant from its breeding grounds in Siberia and Alaska; summer resident, up to 100 birds using estuary and adjacent wet paddocks.
New Zealand dotterel	*Charadrius obscurus*	Regular visitor outside breeding season, in small numbers; breeds on Stewart Island.

Banded dotterel	*C bincinctus*	Resident and breeding in moderate numbers through the breeding season; in late summer there is a significant increase in numbers as the estuary serves as a staging area for the species prior to its annual migration to northern New Zealand and Australia.
Wrybill	*Anarhychus frontalis*	An occasional visitor from its breeding grounds on Canterbury riverbeds.

Family *Scolopacidae* – Curlews, Snipes etc.

All species listed in this section are trans-equatorial migrants, breeding in central and eastern Siberia and/or Arctic or sub-Arctic North America. A few birds of some species (notably bar-tailed godwit and turnstone) winter in the estuary, but most of the birds arrive in the last week of September and depart in late March for their breeding grounds. The Pacific Golden Plover, already mentioned, also falls within this category.

Long-billed curlew	*Numenius madagascariensis*	Regular summer resident in small numbers; a few birds over winter.
Asiatic whimbrel	*Numenius phaeopus variegates*	A rare New Zealand visitor, recorded in small numbers occasionally.
American whimbrel	*N P hudsonicus*	A rare summer visitor, recorded occasionally.
Asoatoc black-tailed godwit	*Limosa melanuroides*	Rare visitor, recorded occasionally.
American black-tailed godwit	*L haemastica*	Rare visitor, recorded occasionally; this species is rare by world standards.
Eastern bar-tailed godwit	*L lapponica*	Regular summer visitor in numbers of up to 3,500; up to 300 birds over winter.
Greenshank	*Tringa nebularia*	Rare summer visitor.
Siberian tattler	*Tringa beevipes*	Rare summer visitor.
Turnstone	*Arenaria interpres*	Up to 1,000 birds are regular summer visitors, some over winter.
Knot	*Calidris canutus*	Up to 90 birds are regular summer visitors.
Sharp-tailed sandpiper	*C acuminata*	Regular summer visitor.
Pectoral sandpiper	*C melanotos*	Occasional summer visitor in small numbers.
Curlew sandpiper	*C ferruginea*	Regular summer visitor in small numbers.
Red-necked stint	*C ruficollis*	Regular summer visitor, up to 50 in numbers.
Sanderling	*C alba*	Rare summer visitor – one or two seen most years.

Family *Irecurvirostridae* – Stilts		
Pied stilt	*Himantopus leucocephalus*	Resident and breeding in small numbers in estuary environs; numbers increase in late summer as post-breeding seasonal movement takes place.
Family *Laridae* – Gulls		
Southern black-backed gull	*Larus dominicanus*	Resident and breeding on nearby peat swamps; large numbers scavenge at city refuse tip throughout a year.
Red-billed gull	*L scopulinus*	Resident in moderate numbers throughout the year; scavenger at city tip.
Black-billed gull	*L bulleri*	Resident in large numbers throughout the year, with post-breeding increasing in late-summer; scavenger at city tip.
Family *Sternidae* – Terns		
Black-fronted tern	*Childonias albostriatus*	Present throughout the year in two's and three's, with post-breeding increase to 20-30 birds in autumn; nearest breeding area is Oreti River above Oporo.
Gull-billed tern	*Gelochelidon nilotica*	Rare New Zealand visitor from South East Asia; recorded only six times in New Zealand, two of these in New River Estuary and environs.
Caspian tern	*Hydroprogne caspia*	A breeding colony of 70-80 pairs (one of the five New Zealand colonies) has been present on the estuary, probably for many years. Since 1964 the colony has been studied, recorded and chicks branded. Nesting site was always a shellbank in the Woodend arm of the estuary until 1973, by which time this shellbank was overgrown with noxious weeds, and the surrounding mudflats (previously used as loafing areas by the Caspian terns and many other species) overgrown with Spartina grass. A new low shellbank appeared south of the old nesting site about this time, and in 1974 the Caspian terns nested successfully on this new shellbank on their second attempt, the first nests having been washed out by tides. In 1975 three separate attempts were made, but all were unsuccessful due to tides flooding the shellbank, which appeared to be lower than in 1974.

		1975 was the first year since recording started in 1964 that no chicks were raised. After breeding, Caspian terns disperse from the estuary to rivers throughout New Zealand, with only two or three remaining on the estuary and environs until August, when the numbers build up again preparatory to breeding.
Arctic tern	*Sterna macrura*	Rare visitor to New Zealand; of the eight records, one is from New River Estuary.
Easter little tern and White fronted tern	*Sterna striata*	Former resident and breeding on the estuary in a colony of up to 300 pairs. Last bred in January 1969 when there were 504 birds; no attempt at breeding since that date. The greatest recorded number since 1969 is 18 on 11 January 1975.
Family *Alcedinidae* – Kingfishers		
New Zealand Kingfisher	*Halcyon sancta*	Resident and probably breeding in small numbers along certain parts of estuary verge; feeds largely on crabs.
Family *Alaudidae* – Larks		
Skylark	*Alauda arvensis*	Resident and breeding.
Family *Hirundinidae* – Swallows		
Welcome swallow	*Hirundo neoxena*	Seasonal visitor in increasing numbers in autumn and winter; nearest known breeding occurs in Canterbury and Westland; attempted to breed in estuary environs (under bridge on Bluff Road) in 1974; hawks for insects over ponds and lagoons.
Family *Muscicapidae* – Flycatchers		
Fantail	*Rhipidura filiginosa*	Resident and breeding occurs in most parts of the Domain wherever there are trees or tall shrubs; both pied and black phases occur.
South Island Tomtit	*Petroica macrocephala*	Not common, but resident and breeding; with the consolidation of native bush areas, it is hoped that this species will increase.

Family *Sylviidae* – Warblers		
South Island fernbird	*Bowdleria punctata*	Resident and breeding in small numbers in scrub at estuary verge. A species truly associated with and dependent upon wetland. There are scattered pockets of fernbirds in various parts of Southland, Awarua Swamp and the nearby estuary areas form the last real stronghold of this species in the district. Land development and burning have greatly reduced the fernbird population; probably extinct in the Domain itself.
Brown creeper	*Finschia novaeseelandiae*	Resident and breeding but not uncommon.
Grey warbler	*Gerygone igata*	Resident and breeding in bush and plantation areas.
Family *Turdidae* – Thrushes		
Song thrush	*Turdus philomelos*	Resident and breeding in bush and scrub.
Blackbird	*T merula*	Resident and breeding in bush and scrub.
Family *Prunellidae* – Accentors		
Hedge sparrow	*Prunella modularis*	Resident and breeding in shrubland areas.
Family *Motacillidae* – Wagtails and Pipits		
New Zealand Pipit	*Anthus novaeseelandiae*	Resident and breeding in open country.
Family *Meliphagidae* – Honeyeaters		
Bellbird	*Anthornis melanura*	Common in bush areas; resident and breeding.
Tui	*Prosthemadera novaeseelandiae*	Common in bush areas; resident and breeding.
Family *Zosteropidae* – Silvereyes		
Silvereye	*Zosterops lateralis*	Resident and breeding; not uncommon over most parts of the Domain, although sightings tend to be seasonal.
Family *Fringillidae* – Finches		
Chaffinch	*Fringilla coelebs*	Resident and breeding in shrubland.
Greenfinch	*Chloris chloris*	Resident and breeding in shrubland and open country.
Goldfinch	*Cardueelis carduelis*	Resident and breeding in shrubland and open country.
Redpoll	*C flammea*	Resident and breeding in shrubland and open country.

Yellow hammer	*Emberiza citronella*	Resident and breeding in shrubland and open country.

Family *Ploceidae* – Sparrows

House sparrow	*Passer domesticus*	Resident and breeding

Family *Sturnidae* – Starlings

Starling	*Sturnus vulgaris*	Resident and breeding, mainly in open country.

Family *Cracticidae* – Australian Bell Magpies

White-back magpie	*Gymnorhina hypoleuca*	The first observation of this bird on Sandy Point was made in 1983; increasing.

6.4 APPENDIX 4 - VERTEBRATES

The following is a list of those fish which have so far been recorded:

Sand flounder	*Rhombosolea plebia*
Yellow-bellied flounder	*Rhombosolea leporina*
Green-backed flounder	*Rhombosolea taperina*
Black flounder	*Rhombosolea novaezelandiae*
Sole	*Peltorhamphus novaezelandiae*
Long-finned eel	*Anguila dieffenbachia*
Short finned eel	*Anguila australis schmidtii*
Lamprey	*Geotria australis*
Yellow-eyed mullet	*Aldrichetta fosteri*
Smelt	*Retropinna retropinna*
Whitebait	*Galaxis maculates* and probably several other *G fasciatus* make up the bulk of the whitebait species.
Brown trout	*Salmo trutta*
Stargazer	*Leptoscopus macopygus huttoni*
Globefish	*Sphiroedes richei*
Red cod or hoka	*Physiculus bachus*

6.5 APPENDIX 5 - MAMMALS

6.5.1 *Rabbit (Oryctalarus cuniculus)*

The first introduction of rabbits into Southland is sometimes erroneously attributed to Sandy Point Domain in 1863. There were, however, earlier introductions in other parts of the province. Be that as it may, the rabbits very quickly made themselves at home in the warm sandy terrain of Sandy Point. Their efforts, combined with that of burning and over-stocking with farm animals, soon reduced much of the area to a waste of moving sand.

The effects of depredations of rabbits continued in gradually lessening degrees right up until about 1940. Since then most of the scars have been revegetated and there is little obvious evidence of past damage.

Today, rabbits are not a significant problem in the Domain.

6.5.2 *Hare (Lepus europaeus)*

Hares are present in Sandy Point Domain, but in quite small numbers. The effect they have appears to be insignificant, although at times they cause damage to newly-planted pine trees.

6.5.3 *Stoat (Putorius erminea)*

This mustelid is present, but nothing is known of its numbers or what effects it has on the wildlife of the area. That could only be ascertained after some study and detailed observation. It is very likely they have some effect on the birds of the Domain, but how much is not known.

6.5.4 *Ferret (Putorius foetidus)*

Sightings of ferrets have been recorded by possum trappers but the evidence would indicate that they are not common. As with the stoat, they probably have some effect on ground dwelling birds. It is probable that both stoats and ferrets also maintain some control on rabbits and hares.

6.5.5 *Hedgehog (Erinaceus europaeus)*

Hedgehogs are present in the Domain, but as with the former mammals, absolutely nothing is known of their abundance or likely effects on the plant and animal life of the area.

6.5.6 *Feral cat (Feliz catus)*

These are the worst predators in the Domain. Their significance in numbers is evidenced by the fact that forty were trapped and destroyed in one year. No doubt ground-feeding birds of all kinds form a significant part of their prey, although on the credit side they probably exert some control over rabbits, hares and rats.

The main problem with feral cats is the fact that their numbers are continually reinforced because of people dumping pet cats at holiday times. However, there appear to be fewer than previously.

6.5.7 *Brush-tailed possum (Trichosurus vulpecula)*

Along with feral cats, the possum is the most serious pest in Sandy Point Domain.

They are mainly restricted to the forested areas and trapping records indicate that they are present in reasonably high numbers.

Their numbers have a distinct effect on the relative abundance of palatable species such as Pseudopanax colensoi and, once a species declines, the browsing effects of a few possums will keep it down.

Over the past years, systematic trapping of the main native forest areas has helped with the regeneration of tree and shrub seedlings.

6.5.8 *Ship rat (Rattus rattus)*

Occurs in bush areas, but its incidence and effect on the other fauna is not known. It is possibly more common than is generally realised as one opossum trapper reported trapping 51 in the winter of 1986.

6.5.9 *Dolphin**

Large schools of dolphin (up to hundreds) have been recorded as sometimes entering the estuary. It is presumed that they are either the Dusky dolphin or Hector's dolphin, but no positive identification has been made. The latter would appear to be more likely.

6.5.10 *Fur seal* (Arctocephalus forsteri)*

Individual New Zealand Fur Seals occasionally enter the estuary and have been recorded as swimming up either the Waihopai or Oreti Rivers.

**Bradley in Southland Catchment Board's comments on the Management Plan 31 August 1989.*

6.6 APPENDIX 6 - SPORTS AND RECREATION CLUBS

6.6.1 *Motor Sports*

6.6.1.1 *Southland Motor Cycle Club*

In the early 1930's, the Southland Motor Cycle Club commenced having annual races on Oreti Beach, the wide flat sands of which are ideal for speed trials.

In 1948, the Club took up an area of land, south of Dunns Road and along what is now known as Pit Road, for the purposes of forming a scramble track.

During 1966, a 500 metre speedway track was formed.

In 1977 Council resolved that the disused gravel pits north of Dunns Road near Oreti Beach be approved for trail riding.

A new building was erected in 1980 to adjoin the existing building at the time.

The track was restored in 1998.

6.6.1.2 *Southland Sports Car Club*

The Southland Sports Car Club has been involved in the Sandy Point area since 1949, when land for a circuit was granted to them by the Invercargill City Council.

Progress at first was slow, and it was not until 8 November 1953 when the first working bee by Club members was held to prepare for a motor racing circuit. At that time, Domain Road did not exist and there was a very rough track to gain access to the venue from Dunns Highway past the flax mill at the time.

Originally it was proposed to build a circuit one mile in length. The success of the Southland Centennial Road Race at Ryal Bush in 1956 persuaded the Club to amend and accelerate plans to build a circuit 1.6 miles in length, so that it would qualify for international competition. Money was raised by way of gifts and debentures to build the sealed circuit and this was opened for its first race on 17 November 1957.

The first "international" race was held on 6 February, 1958. The early meetings were not as profitable as had been hoped and by 1959, the Club owed $32,000 with $18,000 being required within four years. The initial seal was far from satisfactory and most cars spent more time off circuit than on it because of the smooth river gravel stones that had been used.

A Board of Control was formed and further capital was raised. A tragic accident at the 1966 event killed two spectators and a driver. This led to a change in track design that eliminated the accident venue and extended the circuit to its present length and configuration.

In 1980 international races were abandoned and they did not resume in a slightly different form until 1990. Since that time they have been held on at least an annual basis and have diversified their interest.

Today the circuit is used not only for motor racing (car, motorcycle and drags) but also driver training (private, professional student) and other forms of motor sport. Other events such as cycling and triathlons are also held at Teretonga Park. Its use has increased greatly over the years and it is in some form of use most weekends.

Since 1991 a continuous improvement has been made to the circuit, facilities and grounds and, currently, the circuit is internationally licensed to International Grade 3 and National Grade 1, which covers all current Motorsport New Zealand recognised vehicle categories.

At the present time the circuit is highly regarded in both Australia and New Zealand for its layout and safety features, which have resulted in the second highest lap speed record of any permanent motor racing circuit in both countries.

Areas of Teretonga Park have been subleased by the Club for grazing in previous years.

The NZ Grand Prix was first held in Teretonga in January 2001.

The control tower was replaced in 2010.

6.6.1.3 *Southland Stock Car Drivers Association Inc.*

Stock car racing commenced in 1963. At that time the Association used the track operated by the Southland Motor Cycle Club.

From a safety point of view, that proved to be unsatisfactory and in 1976, the Southland Stock Car Drivers Association was granted the use of 7.25 ha immediately to the south of Teretonga. There, the Association has constructed its own racing track and clubrooms.

The area is known as Riverside Speedway.

6.6.1.4 *Invercargill Kart Club Incorporated*

Go-kart racing at Sandy Point commenced about or just prior to 1960 when the Club took up 5.47 ha of land along Pit Road. In 1962, the 500 meter racing track was sealed and the Club became well established. Over the years, the track and facilities have since been upgraded and the track lengthened.

Events such as the Southern Series and the South Island Champs have been held there.

6.6.2 ***Aquatic Sports and Activities***

6.6.2.1 *Oreti Surf Life Saving Club Incorporated*

This was the first recreational organisation to become established on the Domain. It was formed in 1929 and, except for a two-year recess during World War II, this Club has actively patrolled Oreti Beach ever since.

Records show from 1984-1992, members of the Oreti Surf Life Saving Club were named as Honorary Beach Wardens.

6.6.2.2 *Southland Power Boat Club Incorporated*

This Club has its headquarters on the banks of the Oreti River, approximately 1km south of the Dunns Road Bridge. Along with the Rowing Clubs and the Water Ski Club, this Club has a set section of river allocated for its use.

6.6.2.3 *Invercargill Yacht Club*

The Invercargill Yacht Club has an interesting history as it used the waters of the New River Estuary for over one hundred years.

Originally named the Star Sailing Club, it had its headquarters by the old Stead Street Wharf. After a violent storm wrecked its clubrooms and slipway in 1956, the Club moved to Sandy Point Domain.

The site was chosen on the banks of the Oreti River, just north of the Dunns Road Bridge, where it purchased an old scout den.

Continuing siltation eventually made the river too shallow and so the Club vacated Sandy Point some time about 1976, transferring its activities to Awarua Bay.

The building is now occupied by the Jellicoe Sea Scouts.

6.6.2.4 *Invercargill Rowing Club*

This Club also originally started on the Waihopai River and has a long history.

It was established in 1897 and, like the Yacht Club, transferred to Sandy Point following the wrecking of its clubrooms by a disastrous storm in 1957.

Its clubrooms are a little further south from the Power Boat Club.

The Southland Rowing Association had its headquarters alongside that of the Invercargill Rowing Club.

6.6.2.5 *Waihopai Rowing Club*

Originally the Invercargill Railway Rowing Club, this Club was formed in 1887. At first, membership was confined to railways employees, but it soon had to open its membership to all comers.

The Club eventually transferred to Sandy Point in 1967, where a clubhouse was built, and is situated immediately south of the Invercargill Rowing Club.

In 1985 changing rooms were built to accommodate an increasing number of women members. As Club membership increased, the need for more space for storage and Club facilities arose, resulting with an extension to the existing building in 1995 for that purpose.

6.6.2.6 *Southland Water Ski and Runabout Club*

The Southland Ski and Runabout Club was formed in 1960 and is located near the mouth of the Oreti River.

The clubrooms are actually situated somewhere in the vicinity of where McLennan's cottage stood.

6.6.3 *Land Based Activities*

6.6.3.1 *Southland Clay Target Club*

This Club was formed in 1952 and moved to Sandy Point in 1965. It occupies an area of 14.76 ha at the southern end of Pacific Avenue.

6.6.3.2 *Rugby Southland Incorporated*

Frequent closures of City fields caused the Southland Rugby Football Union to look at the possibility of establishing some all-weather fields at Sandy Point.

In 1966, the Southland Rugby Football Union obtained a lease of 16.6 ha of land immediately south of Dunns Road and just beyond the Motor Camp. The land is known as Oreti Park.

They have developed a number of rugby fields and the erection of a semi-covered stand, capable of seating 600 visitors. Lighting was installed at Les George Oval. Lights and poles were relocated from Mataura Rugby Club.

Since becoming established, these fields have been a tremendous boom to rugby players.

6.6.3.3 *Southland Equestrian Centre*

Initially known as the Southland Pony Club and the Southland Area New Zealand Horse Society, this organisation was formed in 1969.

They have 11.41 ha along the eastern side of the southern portion of Pacific Avenue where gymkhanas, training schools and other equestrian activities are carried out.

Over the years buildings have been placed on the site and soil and ground conditions have been upgraded.

6.6.3.4 *Invercargill Pistol Club*

The Invercargill Pistol Club was established in 1962 and, after using the Invercargill Smallbore Rifle Range in Turnbull Thomson Park for some years, the Club in 1970 then leased an area of land near the old gravel pits in the northern portion of the Domain.

It has 50 meter and 25 meter ranges and the area is also used by both the Police and Army for small arms practice.

6.6.3.5 *Southland Golf Club Incorporated*

Established in 1969, when a lease on 108.3 ha of waste land, dune and ex gravel pit, between the fore-dune of Oreti Beach and Pit Road, was obtained. From 1969-1972, nine playable holes were developed, as well as facilities, amenities and the club house. Since then, further development has been ongoing, with the establishment of an 18 hole course and its features.

The club now leases 66 ha.

6.6.3.6 *Southland Rodeo Association*

In 1978 a move was made to Sandy Point, where a complete new complex was developed and the Club has since become well established. The New Zealand Nationals were held there in 1984.

6.6.3.7 Georgetown Scouts

In 1968, Georgetown Scouts was first granted a lease at Fosbender Park. At Mauritangi Campsite there have been many group camps and functions.

Native plantings have been implemented by the Parks Division and the Scout Group over the years.

6.6.3.8 *Southland Rugby League*

The Southland District Rugby League Association currently use Sandy Point Domain sports grounds on a seasonal basis.

6.6.3.9 *Southland Football Association*

The Association started leasing the grounds from 1970. In 1999 the old hockey grounds were developed into four new fields of 90 x 55. These fields have been used for various tournaments and competitions over the years.

6.6.3.10 *Jellicoe Sea Scouts*

This Scout Group occupies the area previously used by the Invercargill Yacht Club. In 1979 the Invercargill Yacht Club sold its clubhouse to the Jellicoe Sea Scouts, subject to the demolition of the old rear portion of the building being carried out.

6.6.3.11 *Southland Mountain Bike Club*

Mountain bike trails have been constructed over the past years and are maintained by the Southland Mountain Bike Club. These are mostly used by general public although the Club does hold some regular events throughout the winter months.

6.6.3.12 *Southland Orienteering*

Many areas of Sand Point Domain have been used for school, club and public orienteering events over the years.

6.6.3.13 *Horse Trekkers*

Various Clubs including Birchwood Hunt Club, Mount Linton Endurance Riding Club and Southland Trail and Pleasure Horsemen use specific areas of Sandy Point Domain for horse trekking. The commercial business of Rakiura Rides has leased land along Sandy Point Road from 2006.

6.6.3.14 *Southern Paintball Club*

In 1995 approval was given for Southern Paintball to lease a portion of Fosbender Park and were relocated to the north side of Links Road in 2010 and are now leasing and area 5.4415ha.

6.6.3.15 *Southland Archery and Bowhunters Club Inc*

The Invercargill Archery Club was previously located at Turnbull Thomson Park. In 1991 the name of the Club was changed to Southland Archery and Bowhunters Club Inc.

In 1997 the lease for Turnbull Thomson Park was cancelled and a lease for a site at Sandy Point Domain was issued.

6.6.3.16 *Southland Landrover Club*

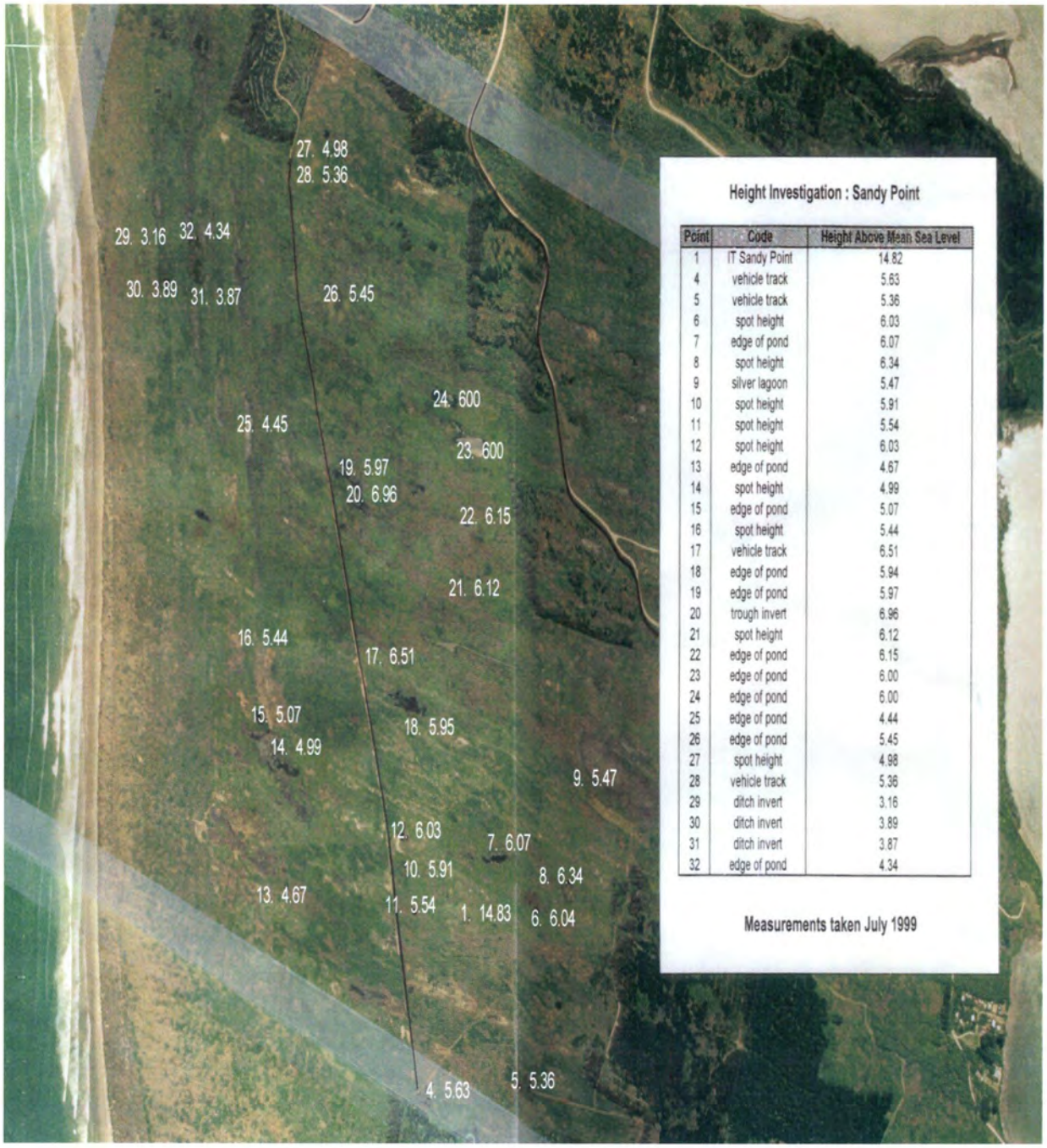
This Club started leasing an area at Sandy Point Domain from 1998.

In 2003 the leased area was transferred from an area west of Teretonga to the area east of the Mauritangi Scout Camp, Fosbender Park.

6.6.3.17 *Southland Sled Dog Association*

The Southland Sled Dog Association has been a regular user of Fosbender Park, Sandy Point over the years. Many training runs and events have been held on the sled dog tracks which have been developed there.

6.7 APPENDIX 7 - SPOT HEIGHTS

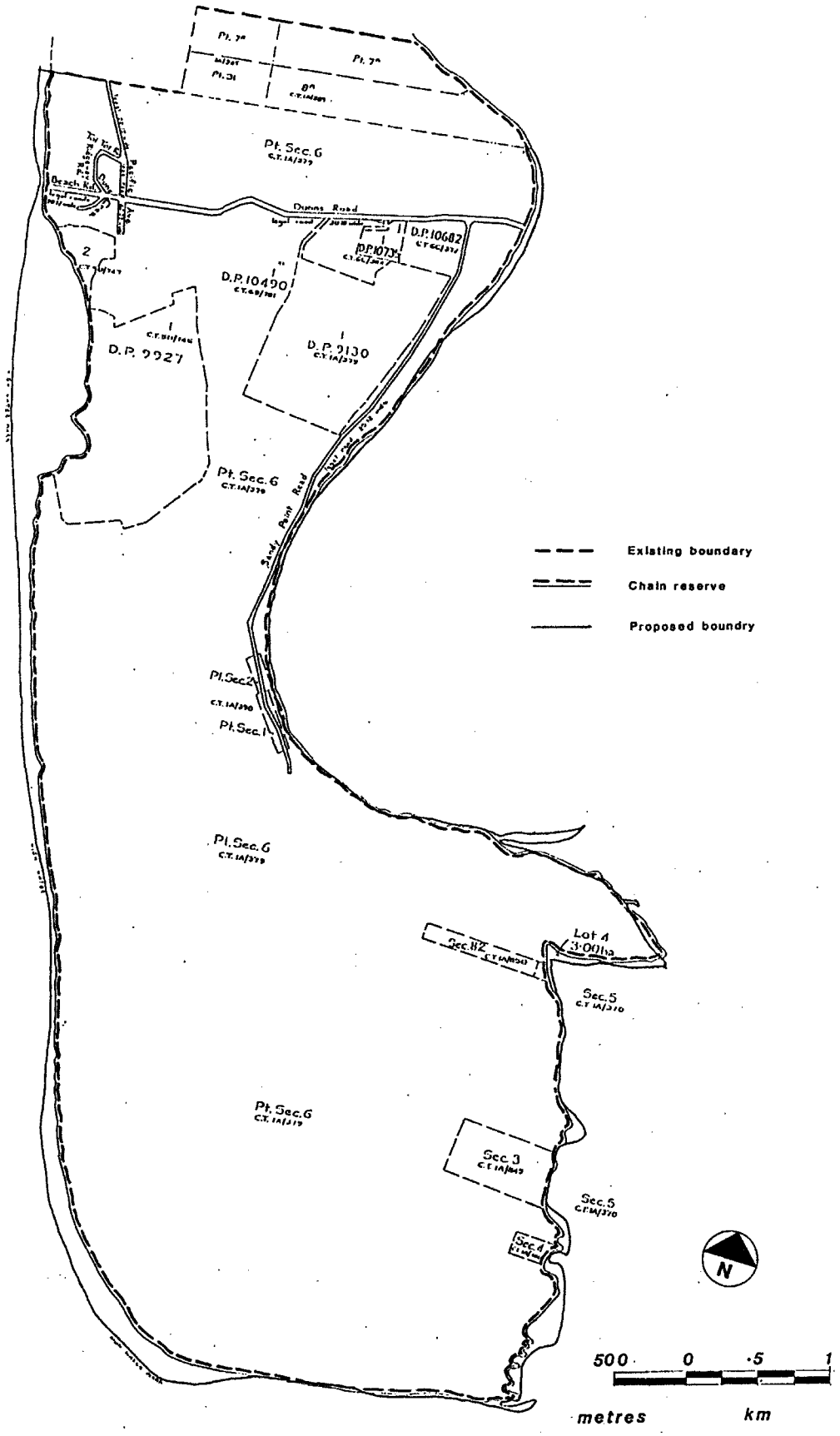


Height Investigation : Sandy Point

Point	Code	Height Above Mean Sea Level
1	IT Sandy Point	14.82
4	vehicle track	5.63
5	vehicle track	5.36
6	spot height	6.03
7	edge of pond	6.07
8	spot height	6.34
9	silver lagoon	5.47
10	spot height	5.91
11	spot height	5.54
12	spot height	6.03
13	edge of pond	4.67
14	spot height	4.99
15	edge of pond	5.07
16	spot height	5.44
17	vehicle track	6.51
18	edge of pond	5.94
19	edge of pond	5.97
20	trough invert	6.96
21	spot height	6.12
22	edge of pond	6.15
23	edge of pond	6.00
24	edge of pond	6.00
25	edge of pond	4.44
26	edge of pond	5.45
27	spot height	4.98
28	vehicle track	5.36
29	ditch invert	3.16
30	ditch invert	3.89
31	ditch invert	3.87
32	edge of pond	4.34

Measurements taken July 1999

6.8 APPENDIX 8 - CADASTRAL MAP



6.9 APPENDIX 9 - NOISE MANAGEMENT PLAN - TERETONGA PARK

Noise Management Plan
Teretonga Park

1.0 Introduction

This document sets out a plan to manage noise emissions from Teretonga Park, a motor vehicle race track that is widely used for motorsport and other related activities throughout the year. This plan has been prepared in consultation with an acoustic consultant. The plan contains a set of objectives, a description of the maximum permitted noise levels, the means by which these limits will be complied with, monitoring procedures, complaint procedures, public notification of events and review provisions. The underlying theme is the general duty to avoid unreasonable noise, as provided by section 16 of the Resource Management Act 1991.

2.0 Objectives

This Management Plan has the Following objectives:

To manage the facilities in a manner consistent with the resource consent granted on (date) and any other relevant legislation or conditions imposed by consent authorities. All events on the site are subject to the provision of the Noise Management Plan.

To establish priorities for the reductions in off-site emissions of noise through improved design and use of noise-mitigating structures and facilities and by the enforcement of in-house MotorSport New Zealand rules regarding maximum permissible vehicle noise levels.

To maintain an effective and relevant Noise Management Plan by periodical review and consultation so that the contents of the Plan remain appropriate for all parties.

3.0 The Site and Actives

The Teretonga Park Motor Race Circuit is situated on land on the Sandy Point Recreational Reserve and fronts onto Sandy Point Road. The site is used for motor sports, driver training, product testing and as a sporting and special events facility.

Noise from the site has been assessed on a number of occasions over a period of 18 months. The principal existing noise sources and those likely in the foreseeable future are identified as,

Motor Racing
Driver Training
Vehicle Testing
Public Address System

Apart from the public address system, all other noise sources are related to vehicles using the Teretonga Park circuit.

4.0 Noise Limit's

The noise conditions imposed when the consent was granted on (date) (as modified on appeal) are:

Noise from activities at Teretonga Park shall, at all times, be managed so that the following noise limits are not exceeded:

Category	L10	Lmax	No of days
Category A	75 dB(A)	90 dB(A)	20 days
Category B	65 dB(A)	80 dB(A)	80 days
Category C	55 dB(A)	75 dB(A)	Unlimited

(i) The number of days allocated to each category is not to be exceeded at the notional monitoring sites.

(ii) The sound levels for each category set out above are not to be exceeded (during the hours set out below) at or within the boundary of any existing site zoned residential, or at or within the notional boundary (20 metres from dwelling) of any rural dwelling. In the case land zoned industrial or commercial the foregoing provision shall apply except that the use shall be conducted so that the maximum sound levels for each category of day are not exceeded within the notional boundary (20metres from existing buildings excluding the Teretonga Park Clubrooms) of existing buildings.

(a) **Category A Days**
There shall be no more that 20 Category A days in any twelve month period of which no more than 10 days shall be a Sunday or Public Holiday

Between the hours of 9.00am and 9.00pm, the following sound levels shall no be exceeded:

75 dB(A) L10
90 dB(A) Lmax

At all other times sound levels shall not exceed 45dB(A) L10 and 65 dB(A) Lmax

(b) **Category B Days**
There shall be no more that 80 Category B Days in any twelve-month period of which no more than 20 days shall be Sunday or Public Holiday.

Between the hours of 9:00am and 7:00pm (provided that on two days per year an endurance event may continue until 10:00pm), the following sound levels shall not be exceeded:

65dB(A) L10
80dB(A) Lmax

At all other time's sound levels shall not exceed 45 dB(A) L10 and 65 dB(A) L_{max}

(c) **Category C Days**
There are no restrictions on the number of Category C Days. The following sound levels shall not be exceeded;

(i) 9:00am to 10:00pm Monday to Saturday; 55 dB(A) L10 and 75 dB(A) Lmax

(ii) At all other times; 45 dB(A) L10 and 65 dB(A) Lmax

The public address system shall comply with noise levels for Category B

(d) **Exception**
On not more than six days in any twelve month period the sound levels may exceed (between the hours of 10:00am and 4:00pm) the maxima specified for a Category A Day, provided that those sound levels are not exceeded for a period of not more than one hour on any one day.

5.0 Noise Management

Noise is an acoustic phenomenon and when generated at source with sufficient energy has the ability to propagate widely into the surrounding area. The principle of noise control is **noise control at source**, which implies the need to adopt practical solutions identified above, the prime requirements is for all track users to use an effective exhaust silencer to limit noise emissions. Further treatment of air inlets and engine attachments may be required in some cases to reduce noise. It is the policy of the track management to require all users to fit and maintain noise suppression equipment so that maximum noise emission limits imposed by MotorSport New Zealand are adhered to.

In order to conform with the general duty to avoid unreasonable noise, track management and race officials shall enforce trackside noise limits for all motorsport activities that are consistent with the New Zealand Manual of Motorsport issued by MotorSport NZ. For races, a Lmax of 95dB(A) is specified for a point 30 metres and at right angle from the edge of the track where the vehicle is at maximum power. For all other events, an effective exhaust muffler is required to reduce noise emissions to an environmentally acceptable level. This provision will not, however, apply to the exception referred to under item 4(d) above, which is for promotional purposes and will be infrequent and of short duration.

A further means of limiting noise in the surrounding area is the effective use of barriers and screens to deflect acoustic energy. The use of advertising signs as acoustic barriers has considerable potential to assist in limiting noise emissions from the site.

Southland Sports Car Club and Teretonga Park management will ensure noise performance standards for the existing situation are met through a combination of enforced vehicle noise limits and judicious placement of advertising signs/hoardings and other structures deemed necessary. As part of the review of the noise management plan (item 8.0 below), the best practical option for further reducing noise limits will be examined in the future and further reductions of noise emissions will be sought based on any new on vehicle technological developments and opportunities for further noise suppression structures around the track perimeter. In particular, options for further reducing vehicles exhaust noise emissions and further investment in noise-reducing barriers will be examined, and decisions made based upon the best practical option for the control of noise.

The design and placement of barriers to deflect sound away from sensitive locations will be finalised in the engineering design and layout of the proposed track expansion. By way of an example, a 3.5 metre high barrier with a superficial mass of 18 kg/m2, placed at 10 metres from the source (ie. The track centre line) will provide for a reduction (potential barrier correction) at 60 meters from source of 15.2 dB for a point source, and about 12 dB for a line source. It is natural that the acoustic barrier effect reduce with distance and for the above example re-calculated for a receptions point at 160 metres, a potential barrier reduction of 14dB is estimated. During the development of the engineering plan for track construction, barrier placement criteria will be developed based on distances to nearest residential and industrial/commercial boundries, and on the resource constraints which will determine size and materials used in barrier construction.

Further noise management is to be achieved through the judicious placement and control of the public address loudspeakers. Sound levels from this source are not to exceed Category C noise limits and careful placement and control of the speakers will limit noise from this source at the relevant off-site boundaries.

The day-to-day responsibility for noise management shall rest with the **Clerk of Course** during race meetings and the **Track Manager** at all other times. In setting priorities for track-side improvements, the Track Management shall have to regard to the need to examine the acoustical effects of advertising signs and other structures, and shall make the best practical use of existing and proposed new signage to reduce noise emissions from the site.

At six monthly intervals the track management shall publicly notify in a local newspaper its programme of events for the following 12 months. The programme shall set out the type of events, their duration, and the dates which will be nominated as Category A, Category B, and Category C days. The programme shall also specify the dates (if any) on which events will be held to which the exemption from noise limits will be held. A list of scheduled events for the next 12 months is attached to this plan.

6.0 Noise Monitoring

Periodic monitoring of noise from activities at Teretonga Park is required to demonstrate compliance with the relevant noise limits. In order that there is consistency in the monitoring the following **Noise Monitoring Programme** shall be adhered to;

Noise Monitoring Programme

Monitoring of L_{MAX} and L_{10} noise levels shall take place twice annually for each of the category A, B, or C type events. Condition 2(b) of the resource consent requires results of noise monitoring to be provided to the Council every three months as well as upon being requested by the Environmental Manager of Invercargill City Council. At the conclusion of three monthly periods during which there has been no monitoring, it shall be sufficient compliance with condition 2(b) of the resource consent for the consent holder to notify Council accordingly (but this shall not relieve the consent holder of the obligation to carry out monitoring twice annually for each category of event, as specified above).

Days on which monitoring takes place shall be selected at random unless monitoring of certain events is specified by the Environmental Manager of Invercargill City Council (or his/her nominee). Monitoring shall be in accordance with NZS6801:1991 "Measurement of Sound" and shall take place in accordance with the conditions of consent at, or within, the boundary of any existing site zoned residential or at or within the 20 metre notional boundary of any rural dwelling or industrial building on sites zoned for industrial use, excluding the Southland Sports Car Club clubrooms. Subject to the express provisions of the resource consent, noise levels are to be assessed in accordance with NZS6802:1991 "Assessment of Environmental Sound", excepting the application of paragraphs 4.2.1 and 4.2.2 "Limits of Acceptability" of that Standard.

Without prejudice towards the identification of more suitable sites, the currently proposed noise monitoring sites are:

(1) At the eastern end of the Dunns Road bridge over the Oreti River.
(2) Southland Power Boat Club boat ramp.
(3) Entrance to rugby fields on the western side of Teretonga Park.

On any scheduled monitoring day, the monitoring shall be conducted for a period of not less than 15 minutes, and shall include monitoring of a representative range of individual events held on that day.

It is intended that monitoring be conducted in consultation with an acoustic consultant. In the initial stages elementary training by a suitably qualified person will be given in the monitoring of sound levels in the local environment, the provisions of the relevant New Zealand Standards, and in the recording of results. In any event, monitoring must be undertaken in accordance with relevant Standards.

7.0 Complaint Procedures

Within the framework of the provisions of the Resource Management Act 1991, a suitable procedure exists for the general public to seek action if they are of the opinion that noise from the site exceeds a reasonable level. Without limiting the rights of any individual, a "reasonable level" is taken here are meaning the noise levels, taken at the appropriate time and location, not exceeding the maximum noise levels specified above.

Without limiting the rights of any person or any Consent Authority, any person who is of the opinion that noise levels emitted from the site exceed a reasonable level, may register a complaint with the Environmental Manager (or his/her nominee) of the Invercargill City Council. The City Invercargill Council shall record the time of the complaint, the address of the complainant, and a description of the type of noise. On receiving such a complaint the City Council may notify as soon as practical the Clerk of Course or Track Manager as to the complaint time and description. The Clerk of the Course and/or the Track Manager shall investigate the complaint and ascertain the cause. Within 72 hours of receiving such a complaint the Clerk of the Course or the Track Manager shall respond in writing explaining to the Environmental Manager, as far as can be ascertained, the likely cause of the noise and action taken, if any, to prevent a recurrence.

8.0 Review of Noise Management Plan

Of key importance in the successful operation of this Management Plan is the need for its provisions to remain practical and reasonable. For this reason the Consent Holder and the Council are to reassess the Noise Management Plan every two years.

Every two years the Consent Holder and the Council shall reassess the Noise Management Plan and consider the results obtained from representative monitoring with a view to ensuring that the best practical options are being pursued to avoid, mitigate, or remedy and adverse effect arising from noise emissions at Teretonga Park. The opportunity to reassess the effectiveness of the noise monitoring programme also exists.

Condition 4 of the Resource Consent includes noise performance standards which will apply from (and including) the ***(date)*** unless the consent holder is successful in an application to change any of those levels pursuant to section 127, Resource Management Act 1991. Such application is to be lodged no later than ***(date)*** provided however that the club will not be entitles to seek a change that would permit noise levels above those applying up to ***(date)***, as set out in condition 2 of the Consent. In the event of an application being lodged as provided for above, the noise performance standards applying up to ***(date)*** shall continue to apply until the application is finally determined.

Signed..... Date.....
for **Consent Holder**

Shooters
Invercargill
Incorporated

24 November 2011

Parks and Reserves
Invercargill City Council
parks@icc.govt.nz

Dear Sirs,

RE: Reserve Land Use

The Associated Shooters Invercargill Incorporated wish to re-draw to your attention their request for the Invercargill City Council to supply/lease/ or offer to sell grounds on which to carry out activities.

The original request is now over two years old, and to date, the only action that the council have taken was to call an all-gun-clubs general purpose meeting, from which nothing resulted. At the time, it was suggested by yourselves that grounds near the Oreti Golf Club, when cleared at some time in the future,, may be available. However, as was pointed out then, other activities already registered and using surrounding areas including the Golf Club, fell within safety zones required for the proposed shooting activities for the area, and was therefore unsuitable. (Short red line on map below shows Council proposed site, and red triangle shows the minimum safety zone required.)

The ASII have been proactively seeking a suitable location. However the requirement of needing to be within 20 minutes of Invercargill means that each time land has been found, resource consent would not have been forthcoming because of nearby housing etc.

Having located relevant maps etc (see below) the club believes that the reserve land area at Otatara, indicated in the map below, would be an ideal area to set aside for our proposed activities.

The map shows our proposed claim, (shown in green) including relevant safety zones. This site meets all of the requirements the ASII identified as necessary to provide for safe, successful facilities, capable of being developed to national and world class standards, and becoming an outstanding local asset.

We therefore ask, that you actively consider this request, or advise of any other proposed area the Council can delegate that may be suitable.

Yours sincerely

Daryl Sleeman
Club President

Submission form — Stage One Consultation

Review of Sandy Point Management Plan

Consultation with the public is the first step in the management plan process. Your comments and suggestions will be taken into consideration when draft of the Sandy Point Management Plan is prepared. You will have a further opportunity to comment on the draft when it is released to the public.

Please send your ideas and comments to the:

Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: BEACH ROAD HOLIDAY PARK

Address: 375 DUNNS ROAD, OTATARA, INVERCARGILL

Phone: 03 2130400

Comments:

AS ATTACH COPY.

(Use extra paper if required)

Signed: _____ Date 2/11/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

To
Invercargill City Council

1st November 2011

From
Beach Road Holiday Park
375 Dunns Road
Invercargill

Re – Purchase of Leasehold Property

Review of Sandy Point Management Plan

This matter has been submitted to the Invercargill City Council already. Daryl Blackler and Gerard Oudhoff have already made a presentation to Council on this issue. This is a reconfirmation of our interests.

We would like to express our interest in purchasing the Leasehold property at 375 Dunns Road in which we have a financial interest in.

We fully acknowledge that the property is Reserve land, however there are special features pertaining to this property that make the situation unique and has numerous points that should be considered as points of difference as opposed to other characteristics of Reserve land.

Both the Camping ground and the Cabbage Tree sites have been of a commercial nature for a number of decades and have operated successfully in providing a meaningful service to the wider Southland region.

We note that both these properties are leased from the Invercargill City Council and overseen by the Parks and Reserve department. The location of both these properties is on the outer side of Invercargill and border the fringe of the Reserve belt. The unique difference for these properties is the historical commercial nature that these properties have had over the previous decades as opposed to the recreational nature of the neighboring properties such as the Rowing Club, Riding Club and all the other sporting activities that are available within this Reserve.

It is worthwhile to note that the above tenants, apart from the camping ground and the Cabbage Tree are all non-profit organizations and are able to access funding from a wider source of providers than a commercial enterprise.

We wish to improve and provide a high level of service and facilities to rate payers of Invercargill and visitors to the South, however with not being the land owner places numerous restrictions on our ability to achieve these goals.

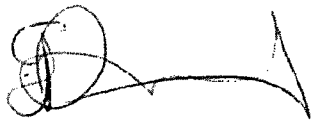
It has been very restrictive in approaching Banks for any funding as they prefer ownership rather than leases, regardless of the term of lease for any building improvements.

As caretakers of freehold land we would be in a better position to add value to these current facilities and provide improved benefits to the community and visitors.

We wish to point out that at no time presently or in the future is there any desire to subdivide or change the use of these properties from there present use if permission were to be granted.

Kind Regards

Gerard & Sharon Oudhoff
Owner
Beach Road Holiday Park



To
Invercargill City Council

1st November 2011

From
Cabbage Tree Restaurant
379 Dunns Road
Invercargill

Re – Purchase of Leasehold Property

Review of Sandy Point Management Plan

We would like to express our interest in purchasing the Leasehold property at 379 Dunns road in which we have a financial interest in.

We fully acknowledge that the property is Reserve land, however there are special features pertaining to this property that make the situation unique and has numerous points that should be considered as points of difference as opposed to other characteristics of Reserve land.

Both the Camping ground and the Cabbage Tree sites have been of a commercial nature for a number of decades and have operated successfully in providing a meaningful service to the wider Southland region.

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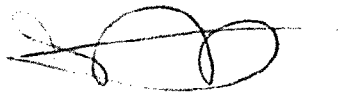
Kind Regards

Daryle Blackler
Owner
Cabbage Tree Restaurant



1 DEC 2011 SCANNED

Submission form Stage One Consultation

Review of Sandy Point Management Plan

Consultation with the public is the first step in the management plan process. Your comments and suggestions will be taken into consideration when draft of the Sandy Point Management Plan is prepared. You will have a further opportunity to comment on the draft when it is released to the public.

Please send your ideas and comments to the:

Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Mrs Dot Muir

Address: 243 Curdie Rd
NORTH. Invercargill

Phone: 213474 cell 0274055215 wk 218024

Comments:

(Use extra paper if required)

Signed: D Muir Date: 29-11-2011

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

You have provided a wonderful area for all at Sandy Point and this is appreciated, thank you.

Some suggestions. A wish list.

HORSES

- Be great to have large sign to tell the horse trekking trails. Trails to have horse sign on them
- A no trail bike sign on horse trails.
- On new trek by pony club cross country—lots of large logs etc for jumping. An entrance out to the beech in this area would be good.
- Tree planting in this area.
- Sign –at Horse trekking start---sign pick up poo etc.

WALKING TRACKS

- Sandy point/daffodil Bay
- Sign—Dogs under control at all times—leads----give way.
- Rubbish bins
- Fosbender Park

Signage---Bikes give way signage.

Dot Muir 2130474 0274055218

29.11.2011

SCANNED

Submission form — Stage One Consultation

Review of Sandy Point Management Plan

28 NOV 2011

Consultation with the public is the first step in the management plan process. Your comments and suggestions will be taken into consideration when draft of the Sandy Point Management Plan is prepared. You will have a further opportunity to comment on the draft when it is released to the public.

Please send your ideas and comments to the:

Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: EDWARD LAWRENCE McCREATH. (TED).

Address: P.O. Box 7044
INVERCARGILL. 9844.

Phone: 0274 340 971.

Comments:

BEING A RESIDENT OF COOPERS CREEK VILLAGE, SANDY POINT I AM QUITE SATISFIED WITH THE STATUS QUO.
THE ONLY RECOMMENDATION I WOULD LIKE TO MAKE IS THAT AN ACTIVE POLICY OF ERADICATION OF MAGPIES BE CONTINUED. BY OUR OWN OBSERVATION ON MANY OCCASIONS WE SEE HOW DESTRUCTIVE THESE PESTS ARE TO OUR OWN NATIVE BIRD LIFE.

(Use extra paper if required)

Signed: E. L. McCreath.

Date: 24th Nov. 2011.

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

environment SOUTHLAND
Te Taiao Tonga

Cnr North Rd & Price St
Waikiwi
Invercargill 9810

Private Bag 90116
Invercargill 9840
New Zealand

Phone 03 211 5115
Fax 03 211 5252
Tollfree (Southland only)
0800 76 88 45
Email service@es.govt.nz
Website www.es.govt.nz

2 December 2011

The Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Our Reference: 423/01/09
Refer Accession No:

Dear Sir

Submission – Proposed Review of Sandy Point Management Plan

Environment Southland acknowledges that Invercargill City Council is to review the Sandy Point Management Plan, and has invited feedback on management of the reserve over the next 10 years.

We note that this is an opportunity to provide feedback on the issues and features that should be protected within this reserve, and acknowledge that there will be a further opportunity for formal comments as part of the future consultation process.

This feedback is from Environment Southland staff in relation to the proposed review of the Sandy Point Management Plan.

This feedback is to be read on a "without prejudice" basis as at the moment as Council has not had the opportunity to peruse it. The Council will consider the future submission once the drafted management plan has been released for formal consultation.

Feedback

Environment Southland supports the proposal to review the Sandy Point Management Plan.

We note the review will be undertaken in accordance with the process outlined in the Reserves Act 1997, and that the purpose of the Management Plan, as set out in Section 41(3) of that Act states the following:

> *The management plan shall provide for and ensure the use, enjoyment, maintenance, protection, and preservation, as the case may require, and, to the extent that the administering body's resources permit, the development, as appropriate, of the reserve for the purposes for which it is classified, and shall incorporate and ensure compliance with the principles set out in as the case may be, for a reserve of that classification.*

As you will be aware, Environment Southland has prepared and implemented the Regional Pest Management Strategy for the Southland region under the Biosecurity Act 1993.

for now and your future

The purpose of the Strategy is:

> *"To provide a strategic, regulatory and funding framework for efficient and effective pest management so as to:*
> - *minimise the actual and potential adverse effects of pests of the environment and the community and;*
> - *maximise the effectiveness of individual pest management action, through a regionally co-ordinated approach."*

Furthermore, the Regional Policy Statement for Southland (RPS), has objectives and policies contained in section 5.2 of the Regional Policy Statement for Southland (the RPS) relevant to the management of Biodiversity are as follows:

> ***Objective 2.1***
> *To protect areas of significant indigenous vegetation and significant habitats of indigenous fauna within Southland where this will maintain or enhance biodiversity of indigenous ecosystems.*
>
> ***Objective 2.2***
> *To maintain and enhance the biodiversity of indigenous species within the Southland Region.*
>
> ***Policy 2.1***
> *Identify and encourage the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna which maintain or enhance the biodiversity of ingenuous ecosystems within Southland.*
>
> ***Policy 2.2***
> *Apply and give effect to Maori values in relation to areas of significant indigenous vegetation and significant habitats of indigenous fauna.*
>
> ***Policy 2.3***
> *Promote understanding of biodiversity and the factors that can impact positively and negatively upon it.*
>
> ***Policy 2.4***
> *Avoid, wherever practicable, remedy or mitigate adverse impacts on biodiversity and the natural processes of ecosystems.*
>
> ***Policy 2.5***
> *Reduce the adverse effects of pest plants and pest animals on:*
> *a biodiversity;*
> *b areas of significant indigenous vegetation; and*
> *c significant habitats of indigenous fauna.*

We note that the second generation Regional Policy Statement is currently being prepared, but has not yet been subjected to the full public process required by the RMA.

Incorporating the above mentioned details, Environment Southland staff make the following comments on the proposed Sandy Point Management Plan:

Comments

Environment Southland believes that ICC should consider the following in the development of their Sandy Point Management Plan.

- Coastal sand dune forest is one of the most threatened ecosystem types. Sandy Point contains the best remaining example of coastal totara and matai sand dune forests in the whole of New Zealand. In ecological terms, the Sandy Point area is considered nationally important. Some of the species present do not occur elsewhere in the Invercargill District, for example *Gunnera albocarpa*, which is listed as a nationally critical plant. These species are at risk from pest plants and animals. Invercargill City Council's District Plan states the following:

  > *"Fragmentation and subsequent loss of vegetation is a particular issue in the Otatara–Sandy Point area, with forest cover in 1996 being 56% of that existing in 1947 and 21% of that existing in 1865."*

  The Sandy Point Management Plan should seek to maintain and protect what remains of this reserve by carrying out effective pest plant and animal management.

- Baseline surveys should be carried out by ICC to ascertain the presence and abundance of pest plants. Objectives can then be set for managing the most problematic of these pest plants. The objectives need to measurable to determine whether ICC is achieving the goals for the reserve management plan.

- Pest Plants listed in the Regional Pest Management Strategy (RPMS) for Southland should be a priority for control work. Many of the RPMS pest plants have been identified as being most invasive for Southlands bush remnants. ICC should not limit its objectives to only RPMS pest plants. Any weeds found that threaten the future viability of the reserves should be controlled. Examples of weeds found in Sandy Point reserve are elderberry, blackberry, gorse, broom, aluminium plant, sycamore and poplar.

- Pest Animals listed in the RPMS should be a priority for control work, in particular there is believed to be deer, mustelids, possums, wild cats and rats present. ICC should not limit its objectives to only RPMS pest animals. Any animals found that threaten the future viability of the reserves should be controlled.

- We acknowledge that funding for reserve management is limited. We therefore encourage ICC to form a stronger focus on the establishment and support of local community groups to help achieve reserve management objectives. The Bluff Motupohuehue Environment Trust and the Otatara Pest Busters are examples where this approach has been very effective in getting community buy in and achieving good pest management.

- Restoration or enhancement plantings have been carried out in some ICC reserves, for example Thomson's Bush. We believe this is very beneficial in reducing maintenance costs as well as helping prevent pest plant establishment. Environment Southland supports this approach being included in the Sandy Point Management Plan.

- Wherever possible, parts of the reserve should be changed from Recreation Reserve Status to Scenic Reserve status. Scenic reserve status would allow the focus to shift from maintaining open space to the protection and enhancement of the biodiversity values that are present.

  Definitions of Reserve Status

  Recreation:
  Providing areas for recreation with an emphasis on the retention of open space and on outdoor recreational activities.

  Scenic
  Preserving the indigenous flora and fauna, indigenous association, and natural environment and beauty for the benefit, enjoyment and use of the public.

- Pubic Access - The reserves have long been available to walkers, but they also have the potential to be utilised more by recreational cyclists. This will help increase community ownership of Invercargill's reserves and ensure they are well used. Environment Southland supports the development of further cycling opportunities.

- We propose that ICC consider the development of a "Big Loop" track to cater for cyclists and occasional off road running events. It is envisaged that this track would complete a largely unbroken loop of the whole reserves' boundary, including the land on the north side of Dunns road. The current mountain bike tracks are a major asset but fail to provide the equivalent of a walking track type experience for cyclists. Cyclists miss out on experiencing the native vegetation of the reserve, and miss out on the challenges and enjoyment of the more varied terrain the reserve has to offer. A more open, flowing track with the challenges of terrain undulations would be a major asset for Invercargill's recreational cyclists, as such a track does not currently exist in close proximity to Invercargill. A "Big Loop" track would remove the temptation for cyclists to use the existing walking tracks. Development of such a track would tie in well with other cycle tracks currently being developed in the Invercargill and Otatara area.

- We propose that the existing commercial forestry area be replanted, upon renewal, with *Totara* as opposed to exotic *Pinus radiata*. This would be grown as a closed canopy forest which could be selectively logged in the future. *Totara* is recognised as a valuable commercial proposition and would offer numerous benefits over exotic species:

  - it is endemic to Sandy Point so is guaranteed to grow well;
  - it would develop a thick native under-story and therefore enhance the natural values and biodiversity of this area permanently;

- selective logging would result in minimal ground disturbance, therefore minimising pest plant invasion;
- fits much better with enhancing the biodiversity values of Sandy Point.

With 77% of native forest cover already lost from Sandy Point, the development of a *Totara* forest would go some way toward restoration.

- We propose that flax be also considered as a commercial species as opposed to an exotic tree species.

- We promote the use of biological control agents to reduce the vigour of broom present in the reserve. Environment Southland is willing to help implement this as part of its ongoing biological control programme for Southland.

- We would like consideration given to the under-planting of existing broom filled areas, and recently cleared areas, with native plants to speed up the regeneration process.

- We support ICC's current policy of using eco-sourced seed material for all plantings.

- We support the development of the Pitt Road gravel ponds (north side of Dunns Road) as wildlife/recreation areas, with the development of walkways, parking, and the exclusion of motorbikes.

- We would like to see the initiation of a medium size dune restoration project, inline with the outcomes of the Dune Restoration workshop in 2010. This would see the endemic *Pingao* grass planted as a possible replacement for exotic *Marram* grass. A copy of the September 2010 workshop handout is attached.

- We would like the recommendations of the Dune Restoration Trust considered with regard to vehicle and pedestrian access to Oreti Beach.

- We support the banning of domestic cats in the residential areas that exist in the Sandy Point reserve. Once their current cats die of old age it should not be permitted that they are replaced.

- We support the acquisition of farmland to the north of the Pitt Road gravel ponds to extend the buffer zone between the vegetation of Sandy Point and the surrounding farmland.

Yours sincerely

Warren Tuckey
Director of Environmental Management

Attached: Dune Restoration Trust workshop 2010 handout

DUNE RESTORATION TRUST OF NEW ZEALAND

EMPOWERING COASTAL COMMUNITIES TO ADAPT TO CLIMATE CHANGE

Southland / Otago Workshops: September 2010

Workshop handout prepared by: Dunes Restoration Trust of New Zealand

DUNE RESTORATION TRUST OF NEW ZEALAND

This is a collaborative project involving the Dune Restoration Trust of NZ, local coast care communities and local authorities.

Financial support for this project has been received from the Minister of the Environment's Sustainable Management Fund, which is administered by the Ministry for the Environment.

Ministry for the Environment
Manatū Mō Te Taiao

Sustainable Management Fund

INTRODUCTION

- This workshop is one of series of workshops jointly funded by the Sustainable Management Fund of the Ministry for the Environment, the Dunes Restoration Trust of New Zealand (Dunes Trust) and local regional and district councils. The workshops and associated fieldtrips are being held throughout New Zealand in collaboration with local community groups and councils to raise awareness of likely effects of climate change along our coasts.

- The outline of workshop handout:

  - ***Section 1:*** **The purpose of the workshop:** Empowering local communities to adapt to climate change. The role of the Dune Restoration Trust of NZ. (Page 4)

  - ***Section 2:*** **Natural beach systems:** How beaches work, natural coastal processes and values and the challenge posed by coastal hazards, including climate change. (Page 7)

  - ***Section 3:*** **Dune vegetation and restoration:** Guidelines for the restoration of dunes using indigenous vegetation and its role in mitigating the effects of climate change. Developing management plans and the key principles of dune restoration. (Page 14)

  - ***Section 4:*** **Coastal erosion and management: The Human Dimension:** How we perceive these issues and will manage them in the 21st century. (Page 27)

- This workshop handout complements earlier guidelines and reports such as:

  - *Planning for Climate Change Effects on Coastal Margins* (MfE 2001). For relevant reports see:

    http://www.climatechange.govt.nz/resources/reports/index.html

  - Dahm *et al.* (2005): *Community-based dune management for the mitigation of coastal hazards and climate change effects: a guide for local authorities*:

    http://www.lgnz.co.nz/projects/EnvironmentalSustainability/ClimateChange/CommunityBasedDuneMangementpart1.pdf

    http://www.lgnz.co.nz/projects/EnvironmentalSustainability/ClimateChange/CommunityBasedDuneMangementPart2.pdf

    http://www.lgnz.co.nz/projects/EnvironmentalSustainability/ClimateChange/CommunityBasedDuneMangementPart3.pdf

  - For the latest MfE guidelines (2008):

    http://www.mfe.govt.nz/publications/climate/coastal-hazards-climate-change-guidance-manual/html/index.html

SECTION 1

PURPOSE OF THE WORKSHOP AND THE ROLE OF THE DUNE RESTORATION TRUST OF NEW ZEALAND

Coastal communities and climate change

- With 90% of New Zealanders living within 50km of the coastline, beaches play an important role in the lives of New Zealanders – reflected in iconic summer holidays, a wide range of recreational and other activities, and extensive coastal subdivision and development.
- However, the way we have chosen to live, work and play on the coast has often bought us into conflict with natural coastal processes, giving rise both to coastal hazard (e.g. coastal erosion and flooding) problems and to environmental degradation.
- In the past, the management of coastal erosion in New Zealand has been dominated by an "engineering" paradigm, which has emphasized "holding the line" or "stopping" erosion – with particular emphasis on the use of rock and other seawalls. This approach is costly, often involves significant environmental damage and adverse impacts on human use values, and can reinforce inappropriate patterns of use and development.
- Climate change effects, including sea level rise, have the potential to considerably exacerbate hazard risk to coastal communities. There will be more frequent and more serious flooding of low-lying coastal margins by extreme tides, storm surge and wave effects. Sea level rise will increase extreme sea levels and markedly increase the probability of present flooding levels resulting in severe hazard problems for many coastal communities if mitigation or adaptive plans are not progressively implemented.
- The challenge for the future is to manage these issues in a more cost-effective and sustainable manner, while also maintaining and restoring the natural, amenity, cultural and recreational values that we as New Zealanders attach to the coastline.
- On sandy beaches, restoration of natural dunes and dune function is a critical element of this change.

Purpose of the workshop

- To provide guidelines for local communities and councils wanting to initiate dune restoration programmes to help mitigate the effects of climate change.
- To provide information on natural dune form and function and best-practice guidelines for community-based restoration and management of coastal sand dunes - based on lessons from existing and successful dune care/restoration programmes across New Zealand.
- Encourage restoration of the natural and human use values associated with coastal dunes.
- The workshop is primarily concerned with shore parallel dunes formed along the landward edge of a beach, where wind blown sand is trapped by vegetation. These dunes are known as *foredunes*, with the most seaward generally called the *frontal* or *active foredune* (sometimes with a small *incipient dune* further seaward) and those further landward as *relict foredunes* (Hesp, 2000) or back dunes.

The Dune Restoration Trust of New Zealand (Dunes Trust)

- The Dune Restoration Trust of New Zealand (Dunes Trust) is an independent forum developed to increase understanding of the importance of sand dunes and their vegetation. The Dunes Trust has its origins in the Coastal Dune Vegetation Network set up in 1997 and continues to maintain close linkages between research providers and coastal managers, community groups, iwi and landowners.

- Membership of the Dunes Trust currently exceeds 300 community groups, iwi, regional and district councils, consultants, native plant nurseries, educational institutes, and coastal landowners. Most regional councils with significant coastal dunes are members along with the Department of Conservation and sand dune forest owners. The success of the network has also led to it being used as model for the setting up of other multi-stakeholder networks.

- The Dunes Trust is:

  - A non-profit charitable trust.

  - Membership includes individuals, Coast Care groups, iwi groups, coastal management agencies, native plant nurseries, consultants, beach users.

  - Dunes Trust members identify, discuss, prioritise and undertake research relating to sand dunes, particularly vegetation, and dune management.

  - The Dunes Trust is funded through individual, group and corporate memberships, grants, donations and commercial sponsorship.

  - The Trustees meets regularly to coordinate all Dunes Trust activities.

- The Dunes Trust aims to:

  - Develop practical cost-effective techniques and options for dune rehabilitation, with emphasis on native species where possible.

  - Monitor and report on work in progress.

  - Publicise results of scientific papers, reports and manuals.

  - Produces newsletters, leaflets and the Dunes Trust Technical Bulletin series.

  - Hold an annual conference consisting of technical sessions, field trips and an open business meeting (AGM).

  - Contribute speakers for community Coast Care/Beach Care networking days.

  - Maintains a database of technical reports on work relating to sand revegetation.

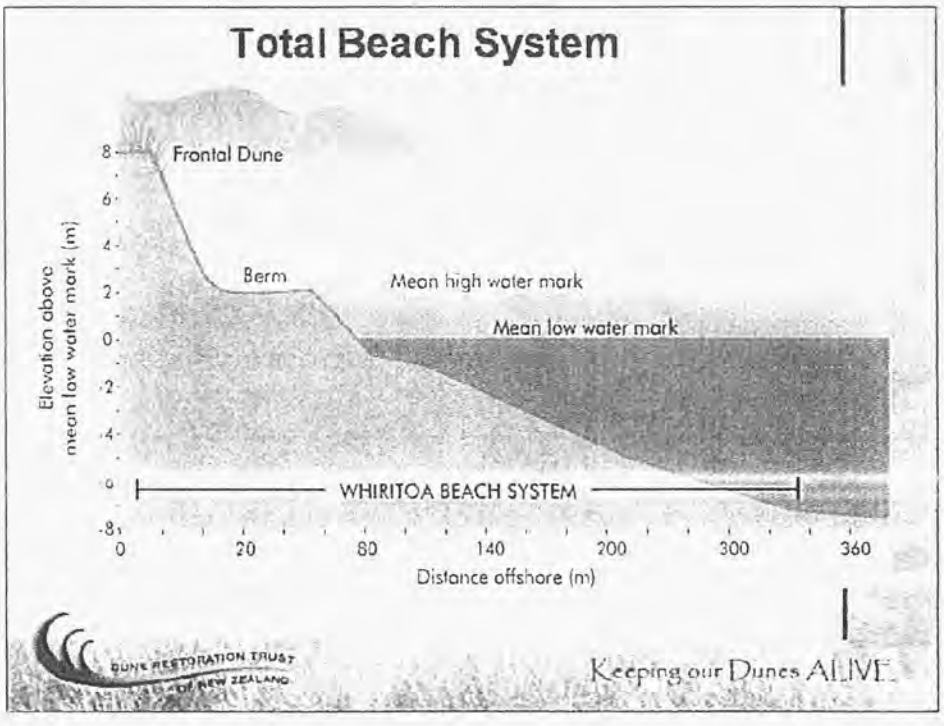
  - Coordinate research on behalf of the research partners.

SECTION 2

NATURAL BEACH SYSTEMS

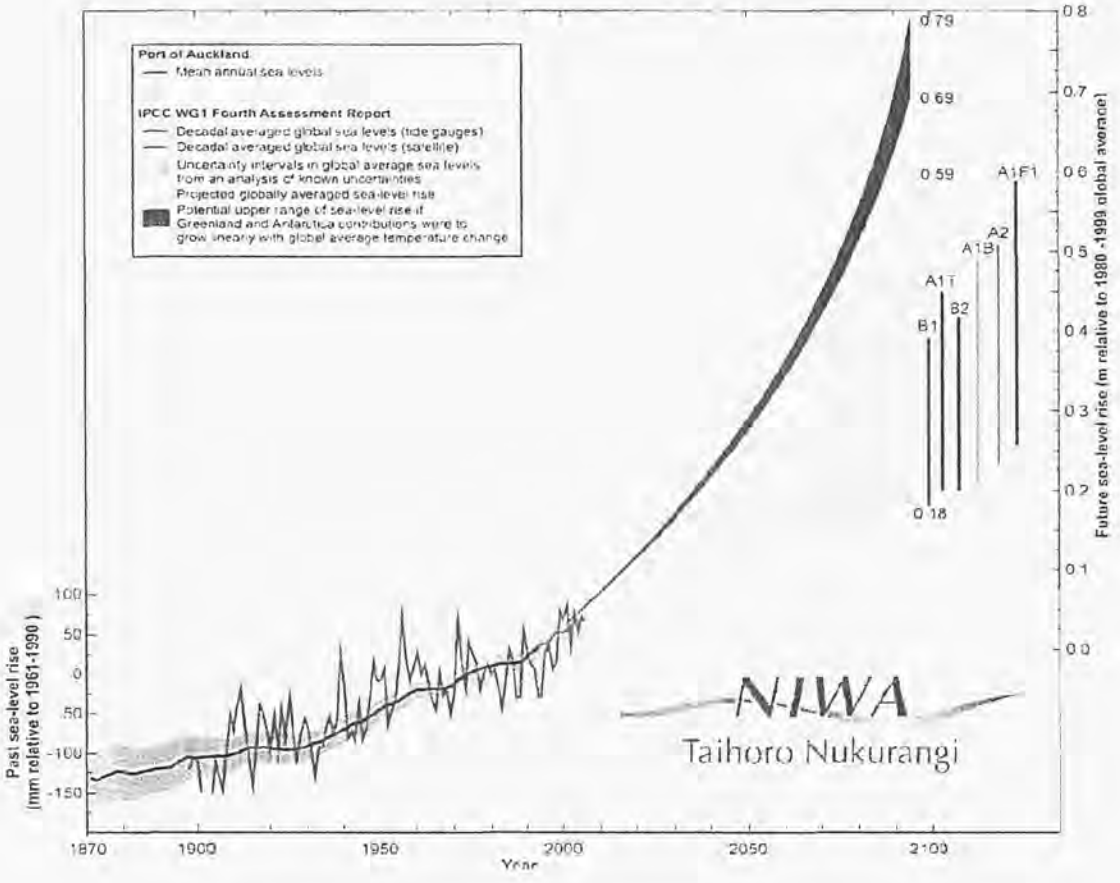
Climate change and coastal communities

- In recent decades, the desire of New Zealanders to live and holiday on the coast has resulted in extensive coastal subdivision and development – often located in nearshore areas vulnerable to coastal hazards, including coastal erosion and flooding.



- Over the next few decades, climate change effects including sea level rise have the potential to considerably exacerbate hazard risk to these communities. Sea level has risen by 10-15cm over the last century and projections are for this trend to continue and to accelerate for centuries, with potential for a relative sea level rise of 50-80cm by 2100 (MfE, 2008). This sea level rise will result in severe hazard problems for many coastal communities if mitigation or adaptive plans are not progressively implemented (MfE, 2001; 2008).

- Sea level rise will increase extreme sea levels and markedly increase the probability of present flooding levels (MFE, 2008).There will be more frequent and more serious flooding of low-lying coastal margins by extreme tides, storm surge and wave effects.

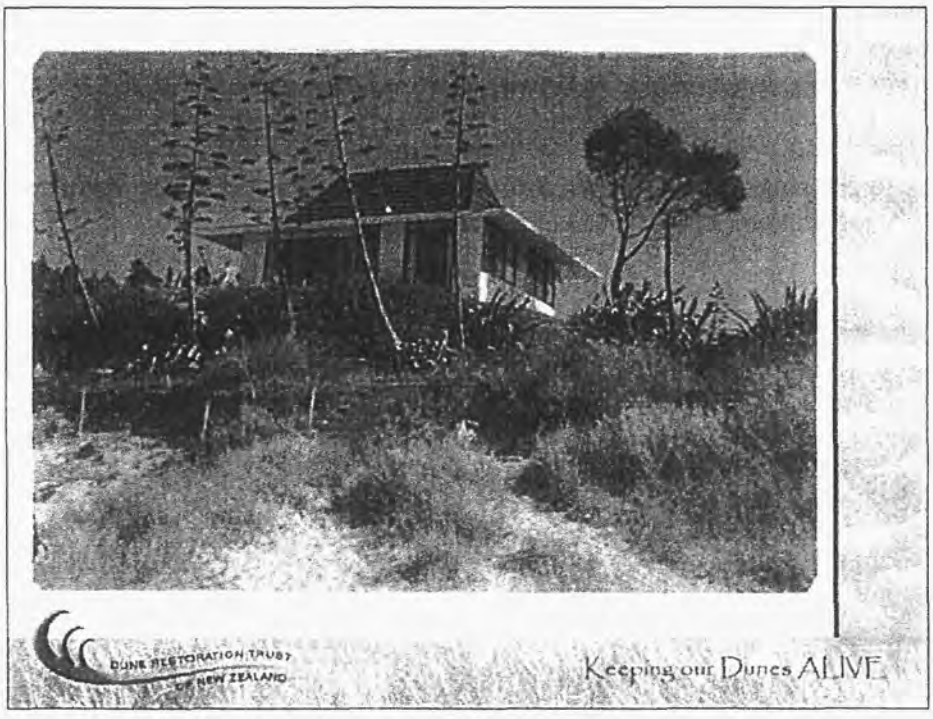


- There is potential in many coastal areas for erosion to be considerably aggravated. Sediment is "food" for beaches and long-term erosion arises when there is insufficient sediment supply to the nearshore system to keep pace with sediment transport out of the system by waves and currents (MFE, 2001). With rising sea level, open coasts that have been dynamically stable over time are likely to show a bias towards permanent shoreline erosion if sand supply and associated physical drivers do not keep pace (MFE, 2001).

- In many regions throughout New Zealand, hazard vulnerability continues to rise due to ongoing intensification of development in nearshore areas vulnerable to coastal hazards and a rapid escalation in the value of high-risk nearshore properties.

- In addition to the threat to development, many existing erosion problems around New Zealand have been managed with seawalls - commonly resulting in serious degradation of important beach values, including amenity values, natural character and public access along the coast (e.g. Gibb, 1996b; Dahm and Spence, 2002a). Aggravation of erosion by sea level rise will severely worsen such adverse effects and will also threaten the viability of many of these structures.

- In short, coastal communities and climate change are on a collision course (MFE, 2001) – with an escalating risk profile and serious ongoing degradation of coastal values. Effective action to mitigate hazard vulnerability, including the impact of projected climate change, is a priority if existing trends are to be reversed.

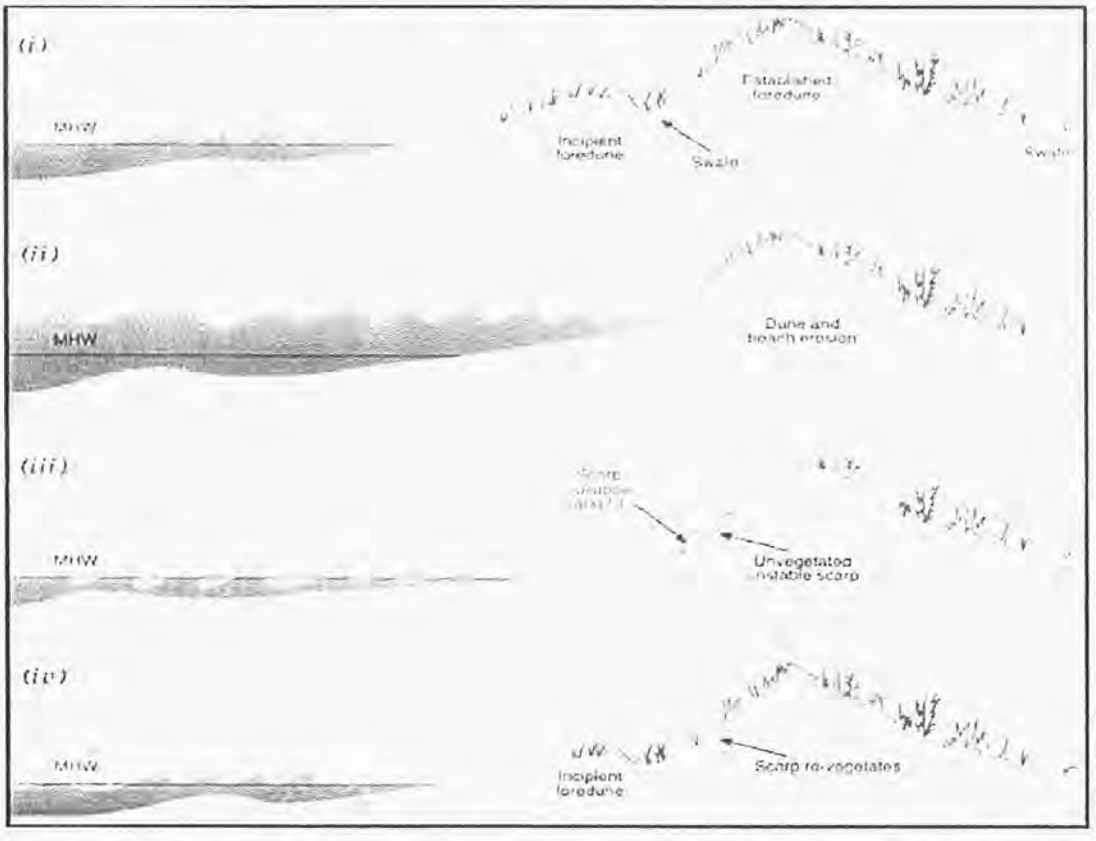


Before erosion of foredune

After erosion of foredune

Role of dunes in natural beach dynamics

- Coastal foredunes backing sandy beaches play an important role in the mitigation of coastal hazards and in the protection of the natural and human use values of beaches. These dunes will become increasingly important with projected climate change.
- Frontal foredunes are an integral part of the total beach system; these dunes and their vegetation play a critical role in beach dynamics, particularly in the natural cycles of dune erosion and recovery that occur on sandy beaches (Figure 1).



Natural cycles of dune erosion and recovery that occur on sandy beaches.

- During periods with low to moderate wave action, sand tends to move onshore and a wide high tide dry beach develops. Dry sand blown landwards is trapped by dune vegetation, which slows wind velocities near the surface causing the sand to be deposited, building up the dune over time (Figure 1i).
- During major storms, waves erode the beach and the frontal dune – with the eroded sediments deposited on offshore bar systems, which help to protect the beach by breaking waves offshore and thereby dissipating excess wave energy (Figure 1ii). Erosion continues until either the storm ceases or equilibrium is reached between beach profile shape and the storm waves. Immediately after storm erosion, the beach is

lowered and the frontal dune is often characterised by a steep, near vertical eroded dune face.

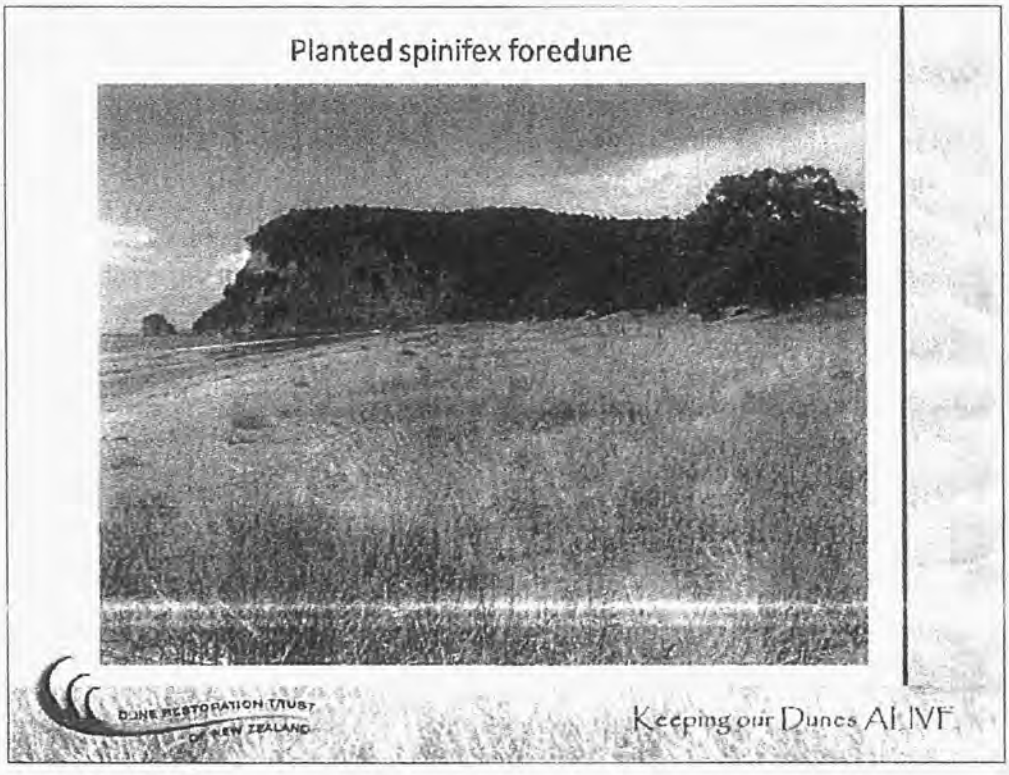
- After a storm gives way to calmer weather, the sand deposited on the offshore bar gradually moves onshore, restoring a high tide beach (Figure 1iii). The eroded dune face also generally collapses to a more stable slope.
- In extended periods without further dune erosion, the native sand binding grasses on the seaward face of the dune, particularly spinifex (*Spinifex sericeus*) and pingao *Desmoschoenus spiralis*) gradually begin to extend down the eroded dune face – renewing the process of sand entrapment and gradually repairing the eroded dune face (Figure 1iv). This natural dune repair process is relatively slow and full recovery can take years after a period of severe dune erosion.
- In addition to their importance in dynamic shoreline fluctuations, dunes also contain sand reserves that will be required to maintain beaches in the event of any trend for long term shoreline retreat – such as may occur in response to projected to sea level rise and other climate change effects.
- As such, dunes are central to the maintenance and enhancement of beaches and their associated values.

Importance of Dunes for Hazard Mitigation

- Coastal dunes provide natural protection from coastal erosion and flooding and this role will become even more important with projected climate change.
- For instance, dunes provide a natural buffer that can absorb the impact of erosion, thereby protecting areas further landward. The wider and higher the dunes between development and the sea, the greater the level of natural erosion protection provided.
- Dunes do not "stop" wave erosion. Rather, they provide a natural self-repairing buffer to absorb the erosion. An adequate dune width enables communities to live with natural shoreline movements – the dune erodes during erosional phases (Figure 1ii) and repairs/builds during accretionary periods (Figure 1iv).
- The self-repairing capacity of natural dune systems (Figure 1iii, 1iv) is also very important for the mitigation of coastal erosion – as this natural dune building and repair reinstates the protective dune following severe storm erosion. Dune repair is characteristic of most New Zealand beach-dune systems, except the very rare beach systems experiencing relatively rapid rates of long-term retreat. However, the process of natural dune repair takes time (usually several years) and during periods with a higher than normal frequency of erosion events, regular erosion may prevent any significant dune recovery for several years.
- Natural frontal dunes also provide significant protection from coastal flooding associated with storm surge and wave effects. For instance, the height and width of dunes significantly mitigate and often prevent wave flooding further landward. The beach

erosion and the near-vertical eroded dune face that develop during storms (Figure 1ii) can also provide a very effective limit to wave action.

- Sand dunes and other natural buffers (e.g. mangroves) can even provide useful flooding protection in places during serious coastal flooding events, such as moderate tsunami.



- When coastal settlements have inadequate dune protection, serious coastal erosion or flooding problems almost invariably result. Moreover, once natural dune protection is inadequate and coastal hazards directly threaten development, there are generally no cheap or easy answers – especially on ocean beaches. Resolution of the resulting hazard problems is nearly always difficult, contentious and expensive. Many management approaches used in such situations (e.g. engineered seawalls) can seriously degrade beach values.

- The potential for coastal erosion and flooding to be considerably accentuated by climate change effects (MfE, 2001) further emphasizes the importance of restoring and maintaining wide natural dune buffers along the seaward margin of coastal development - with a good cover of appropriate native sand binding vegetation to ensure natural dune building and repair.

Other Values of Coastal Dunes

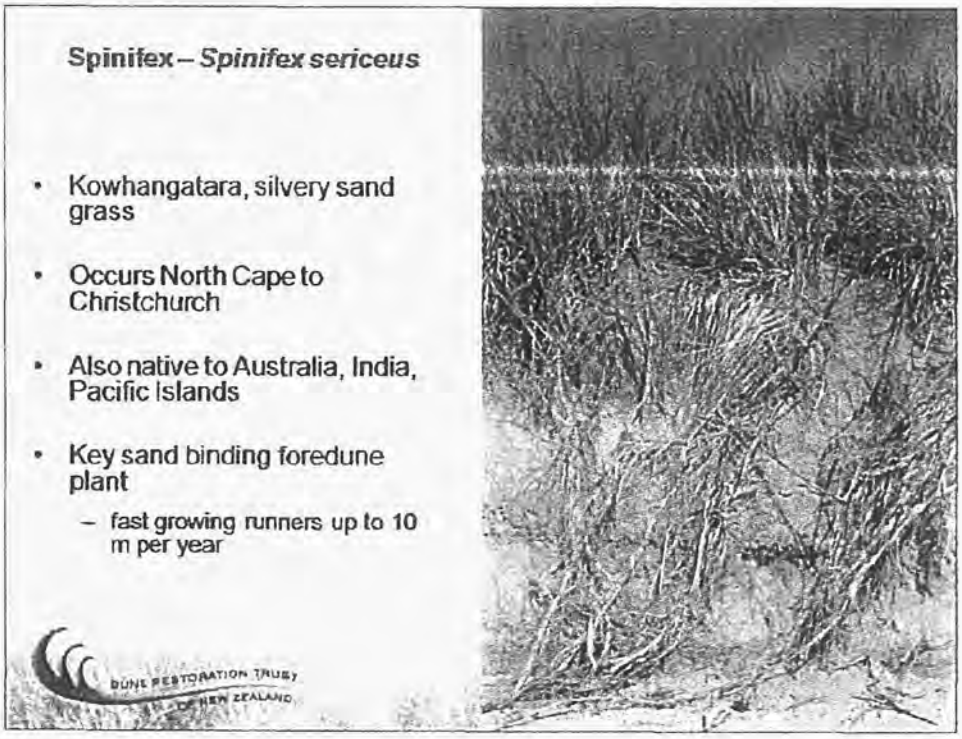
- The protection and restoration of coastal dune systems is also required to maintain a wide range of other coastal values in the face of climate change effects.
- On most sandy beaches, natural coastal dunes are central to preservation of natural character, protection and enhancement of coastal biodiversity and habitat, and the protection of landscape and other coastal amenity values (Environment Waikato, 2001). Natural dunes also have important intrinsic and scientific values (Nordstrom, 1990). In addition, coastal dunes in New Zealand have a long history of human use and frequently contain important archaeological and cultural sites (e.g. Furey, 1997; McFadgen, 2003).

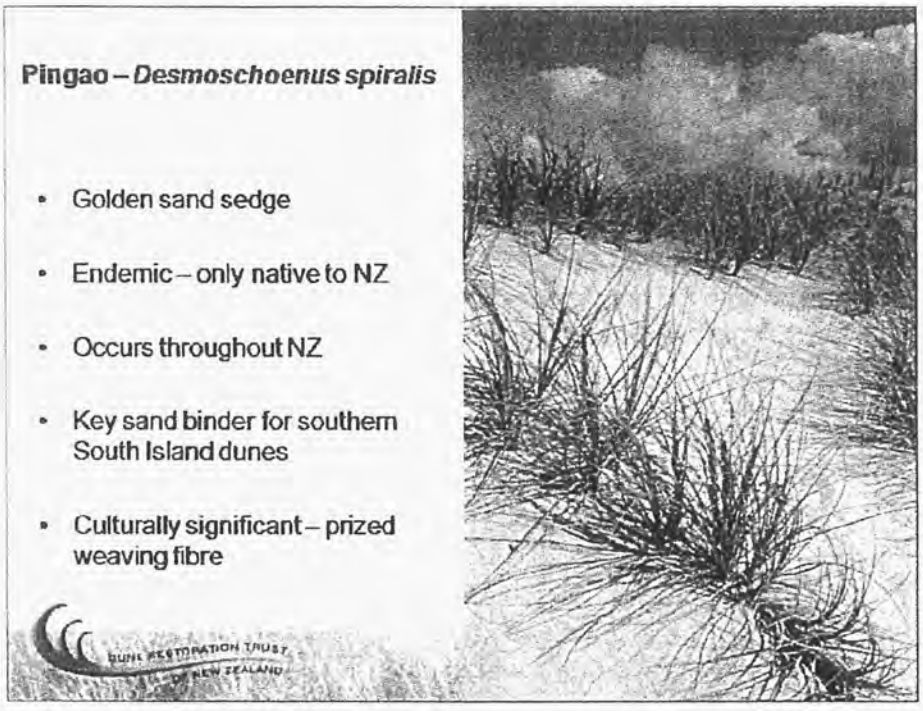
SECTION 3

DUNE VEGETATION AND RESTORATION

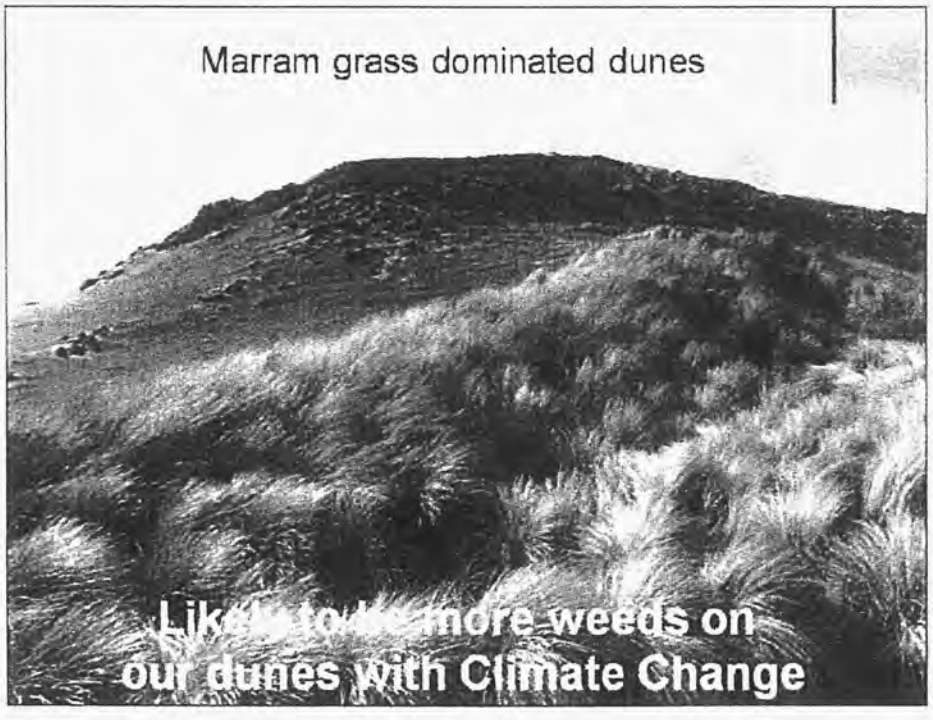
Original Dune Vegetation

- Dunes vegetation plays an important role in natural beach and dune dynamics and in beach and dunes values. In particular, natural dune repair after storms is *critically dependent* on the presence of appropriate sand trapping vegetation on the seaward face of the dune.
- In New Zealand, the key native sand binding species on the seaward dune face are spinifex and pingao (called pikao in the South Island). Good summaries of existing knowledge on these species are provided in Bergin and Herbert (1998) and Bergin (1999).

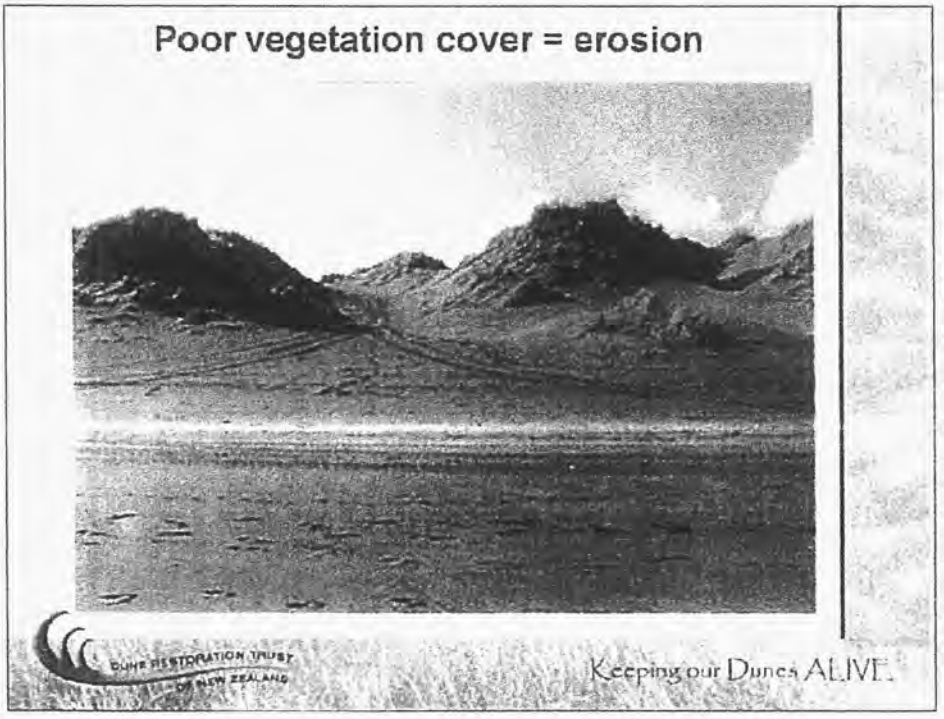




- While many exotic species have been used to stabilise dunes such as marram grass (*Ammophila arenaria*), ice plant (*Carpobrotus edulis*), kikuyu grass (*Pennisetum clandestinum*), these species are not as effective as spinifex and pingao in repairing storm-damaged frontal dunes.



- Without a good cover of spinifex and pingao on the seaward dune face, natural dune repair between storms tends to be very limited. This can result in the next storm picking up where the last one left off, giving rise to more serious dune erosion than would have occurred with some dune recovery between the two events.
- Wind erosion problems also occur if the cover of sand binding species on the seaward dune face is disrupted and can lead to severe dune damage (e.g. blowouts) and to problems with wind blown sand further inland. The sand blown inland is often permanently lost from the beach system – so that a sandy beach without a vegetated dune (or with a damaged dune) is a lot like a bucket with a hole!



Disturbance of vegetation cover = wind erosion

Human Modification of Coastal Dunes

- Human modification of coastal dunes is common worldwide (Nordstrom, 1994). In New Zealand such impacts have been much more widespread and significant than is commonly realised – often leading to major changes in dune morphology, vegetation and natural coastal processes.

Development too close to sea

- Modification of sand dunes in New Zealand is related to historical damage often leading to major sand movement. Many landuse practices and causes of ongoing disturbance still continues. These include:
  - Uncontrolled grazing by early settlers and landowners throughout the country.
  - Removal of dune and other lowland forests from back dune areas for development of pastoral farming and exotic forestry.
  - Poor management of vehicle and pedestrian access.
  - Introduction of browsing mammals, particularly rabbits and hares.
  - Modification of dunes associated with coastal subdivision.
  - Displacement of native dune vegetation by exotic plant species.
  - Erection of coastal structures such as seawalls.
  - Sand extraction

Dune Restoration objectives

- Dune restoration is primarily required when natural dunes have been significantly modified or damaged by human activities – past and present. In the absence of human damage, most natural foredunes in New Zealand are self-maintaining unless on rare shorelines suffering long term retreat.
- In terms of dune restoration works, dune management for the mitigation of climate change effects should aim to:
  - Restore and maintain a protective natural dune buffer between coastal development and the sea.
  - Maintain a good cover of appropriate native sand binding vegetation – especially spinifex and/or pingao on the seaward face of the frontal dune.
- In addition to hazard management objectives, every site will have a range of other management objectives that need to be addressed in designing appropriate dune management action. In particular, these include objectives related to protection and enhancement of important coastal values including:
  - natural character,
  - coastal ecology and biodiversity,
  - cultural values,
  - recreational values,
  - landscape amenity,
  - public access to and along the coast,
  - archaeological and scientific values.

Basic considerations for dune restoration

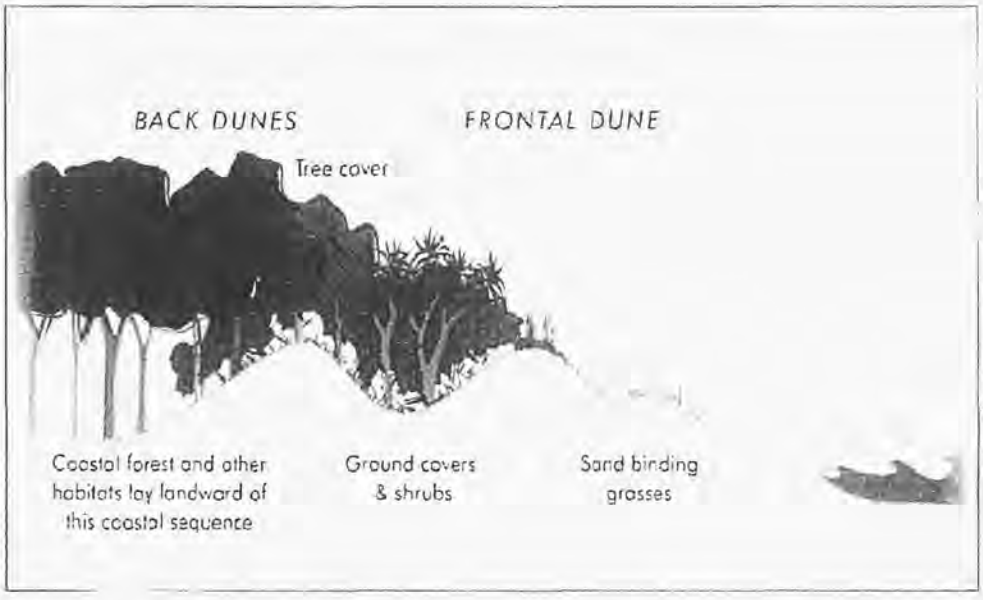
- Dune management should generally only be considered at sites where dunes are or were a natural element of the coastal environment. Examination of historical information or similar local beach environments may be required to confirm this.
- It is also important to ensure that there is sufficient space between development and the sea to form a sustainable dune (or part dune). If the space is inadequate, it will be necessary to create more space before proceeding with dune restoration.
- At most developed sites, the available space may be sufficient for a sustainable dune (at least in the short-medium term) but will probably not be adequate to provide complete protection from the worst practical erosion, including climate change effects.
- In this situation, dune management must be complemented with other hazard management options, particularly setbacks and development controls, to provide a

complete and sustainable hazard management strategy. Ideally, and where practicable, setbacks should be designed to provide for maintenance and/or restoration of a wide range of coastal values (e.g. natural character, amenity values, biodiversity) and not just hazard protection.

- Where environmentally damaging options such as rock seawalls are also necessary, ideally they should always be located as far landward as physically practicable – preferably sufficiently far landward so as to be buried and out of sight on most occasions, exposed only for short periods during very rare and severe erosion. Environmental damage and other issues will become even more acute in the event that erosion is aggravated in the future by climate change effects such as sea level rise.

Planting and enhancement of existing vegetation

- In general the most essential requirement of dune management is to ensure the maintenance of a good cover of appropriate sand binding species on the seaward dune face – particularly spinifex and pingao. While these are not the only native species that grow in this hostile area, at most sites they are the species most critical to natural dune building and repair. Theses sand binders thrive in conditions of sand movement and in fact become unthrifty once the site they occupy becomes stable. Spinifex has a southern limit of Banks Peninsula (Simpson, 1974), while the endemic pingao occurs throughout the country (Bergin and Herbert, 1998).



Vegetation on dunes follow a predictable "Zonation" pattern.

- A good cover of spinifex and/or pingao on the seaward dune face ensures natural dune building and repair processes and prevents serious wind erosion. There is no point in revegetating an unstable backdune area when the area is being fed by sand blowing

inland from the beach over a denuded frontal dune – the frontal dune needs to be attended to first.

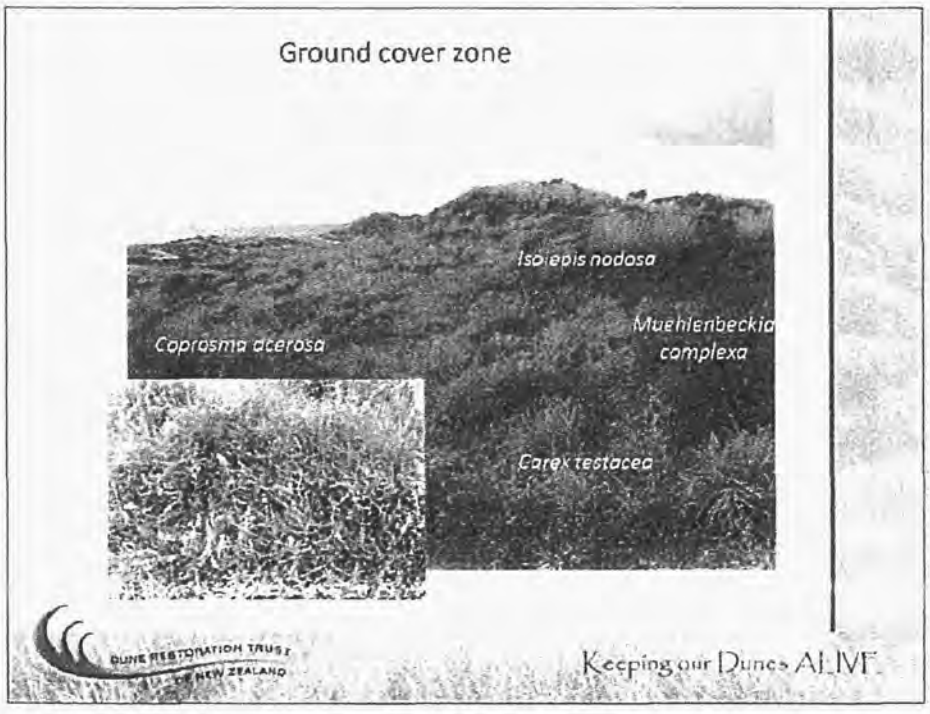
- While planting of nursery-raised sand binding plants is generally the major focus of restoration programmes, 1-2 light dressings of a nitrogen fertiliser such as urea can also be very effective in closing gaps in existing sand grass cover (Bergin 1999). Other measures that protect existing vegetation can also be very effective – such as accessways, signs and fencing; excluding grazing animals; etc.

- Comprehensive guidelines are now available for growing and planting the major native sand binders (Bergin, 1998; 1999; Bergin and Kimberley, 1999). In brief, most plantings of spinifex and pingao use high quality nursery-raised seedlings planted relatively densely - typically about 1 m spacing although higher densities in very exposed sites is recommended. The seedlings should be planted deeply with slow release NPK fertiliser incorporated in each planting hole.

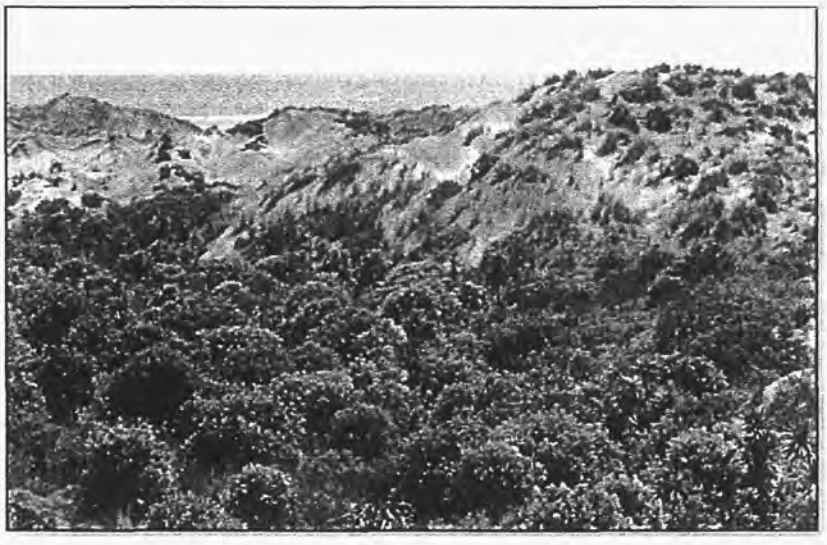
- Native dune plants must be sourced well in advance of planting projects and commercial nurseries usually require at least 12 months notice. Eco-sourcing (raising seedlings from seed collected from local populations) is desirable, otherwise using plants raised from seed collected from the nearest source or the same ecological district is recommended.

- Once the seaward dune face has a good cover of appropriate native sand binding species, attention can be given to planting back dune areas. Due to the severity of climate along the coast (principally onshore salt-laden winds) there is a clear zonation of vegetation from the foredune through to backdunes and ultimate lowland forest. Significant differences in both plant stature and species composition occur within these backdune zones with sometimes abrupt but usually diffuse boundaries.

- Appropriate native ground cover species are usually planted directly landward of the pioneer sand binding species, with a wide range of hardy native coastal trees and shrubs able to be established further landward. Trees and shrubs planted too close to the beach especially on exposed coastlines are unlikely to survive or grow well due to severe wind abrasion and salt burn. The appropriate native species for backdune areas vary around the country and should be assessed for each site based on local site inspections and botanical information.



Ground cover zone



Coastal shrub and tree zone

Volunteers planting backdunes at Okia, Otago

(image: www.yellow-eyedpenguin.org.nz)

Earthworks and dune reshaping

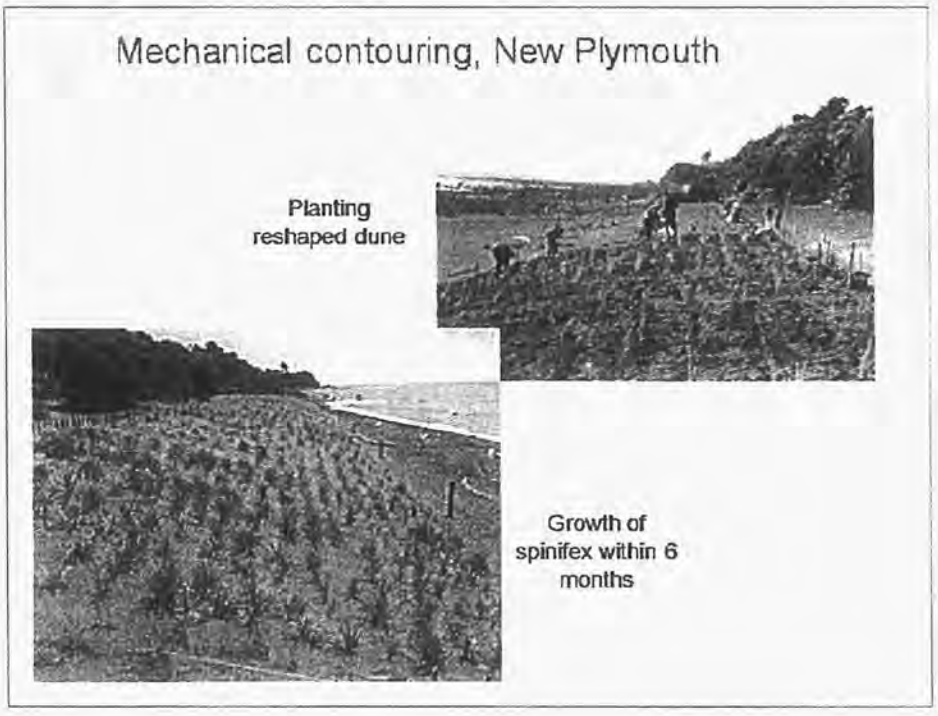
- Earthworks are not always required but can be a critical element of effective dune restoration – especially where dunes have been severely modified or damaged by human action. For instance, it is very important to remove any clay fill or soil that has been placed on the frontal dune – particularly on the seaward face. Spinifex and pingao, the key native sand binders, must be planted directly into loose clean sands.
- Earthworks are generally the best approach to repair dunes seriously damaged by wind erosion – as planting can then be undertaken almost immediately. Sand building fences can have a limited role but are now used less frequently.

Mechanical contouring

Excavators removing exotic vegetation cover

Re-contouring sand to low even slope

- When using earthworks, dunes should generally not be extended seaward of the existing natural dune toe. If there is room for seaward advance of the dune, this will occur naturally over time once a good cover of appropriate sand binding species has been restored on the seaward dune face.
- Earthworks can be contentious, even where well justified, especially on developed beaches. It is important to consult widely, assess other dune values that may be affected, ensure the scope of works is kept to the minimum necessary and to obtain any required landowner approvals or resource consents.
- Earthworks should be timed and, where necessary, carried out in stages to enable planting work to commence almost immediately to minimise risk of wind erosion. This is particularly important in locations with frequent strong and persistent onshore winds.

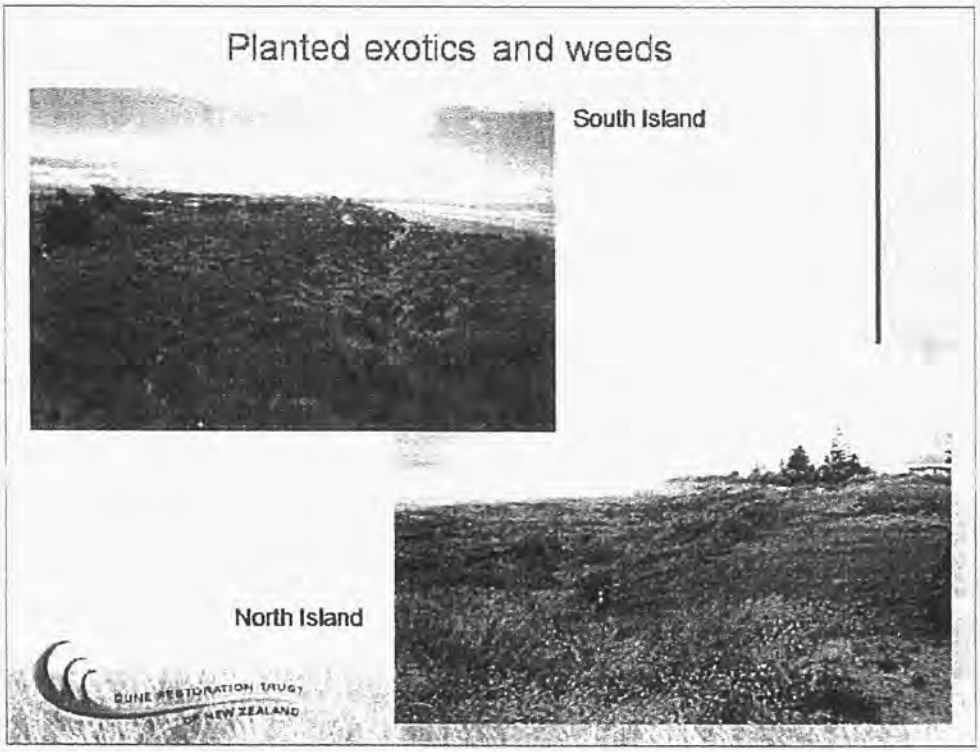


Access and Vehicle Management

- Well signposted and conveniently located accessways are required in high use areas - to facilitate access to and from the beach while also protecting sensitive dune vegetation, particularly the sand binding vegetation on the seaward dune face.
- Many different types of access structure are used, with the most appropriate structure normally determined on the basis of site-specific requirements. However, a simple board and chain accessway (or "sand ladder") is common.
- Good signage is also important – simple, friendly/positive, informative and eye-catching signs being the ideal.
- Fencing is required along the margins of accessways, with bollards and rope or post and rail generally preferable to post and wire fences. However, in most areas this can be avoided through the provision of well-located and frequent accessways and good signage. Maintenance of a well vegetated dune will often in itself encourage beach users to use nearby formal accessways.
- If vehicle use occurs on local beaches, management action will often be required to minimise problems. This can be an extremely difficult problem to manage, especially at remote sites, and can result in serious dune damage at exposed sites with strong winds. All statutory land managers (Regional, City and District Councils, DOC etc) are party to this control initiative to ensure consistency.

Weed and Pest Control

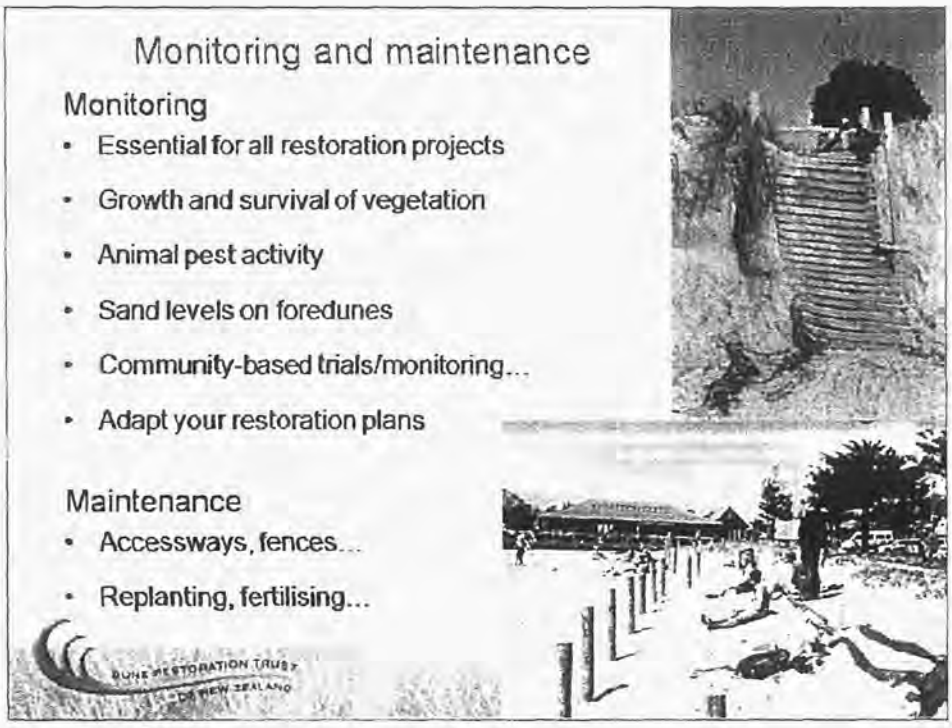
- Control of problem plant and animal pests may be required at some sites. Plant pest control officers from the local regional council can usually provide valuable assistance in the design of weed control programmes.
- In areas where coastal biodiversity and ecological objectives are important, local information campaigns can also be helpful to discourage "gardening" of backdune areas and the dumping of garden wastes.



- If the frontal dune is dominated by the introduced marram grass, Kikuyu, and/or ice plant (*Carpobrotus* spp), consideration should be given to replacing these species with spinifex and pingao (especially on the seaward face of the dune). A programme of gradual replacement of exotics with native species is likely to be a prudent option on such sites.
- Animal pests such as rabbits can also pose cause serious problems for coastal planting programmes – with some species being particularly vulnerable. Animal pest control officers from the regional council can generally assist with guidance on appropriate pest control programmes.

Monitoring and Maintenance

- Some form of simple ongoing monitoring of restored or managed areas is critical, so that any problems or damage can be identified early and addressed. At many sites, this simply consists of regular inspections of dune condition.
- It is also important to ensure a regular photographic record of restored areas – including both before and after photographs. These also assist communities to celebrate success and are very helpful in illustrating the importance and success of dune management work to decision makers.

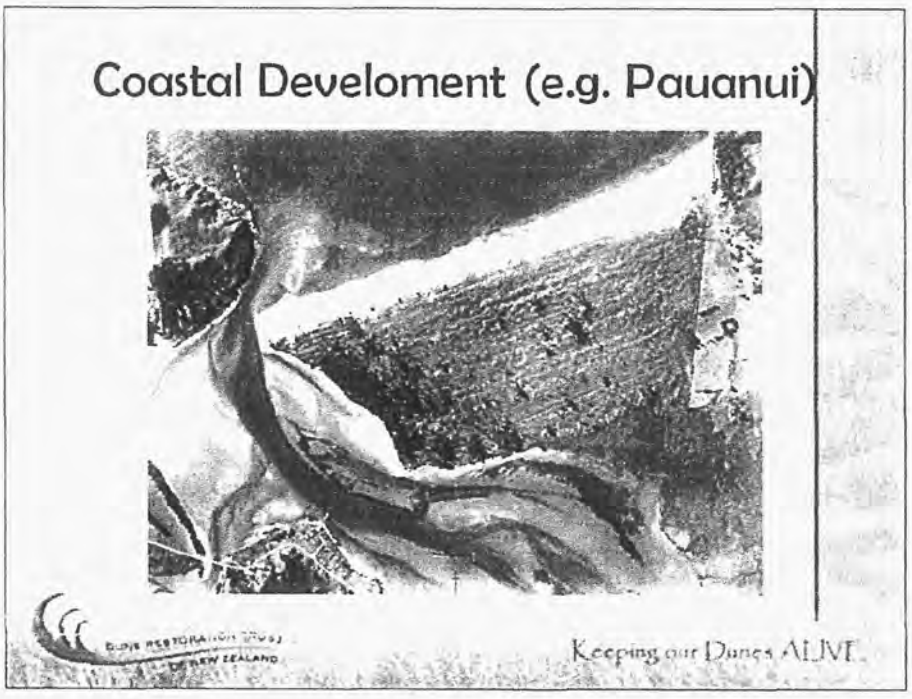


- Ideally, it is also desirable to have some rigorous form of long-term monitoring of changes of dune morphology and vegetation – though this is not yet common.
- Ongoing maintenance of dune works is generally required, as human and other factors will damage plantings and dune vegetation, signs, beach accessways, etc. However, natural storm erosion does not necessarily require intervention or maintenance. If a dune is well vegetated in native sand binders and human disruption is minimised, the vegetation will naturally repair the damage.

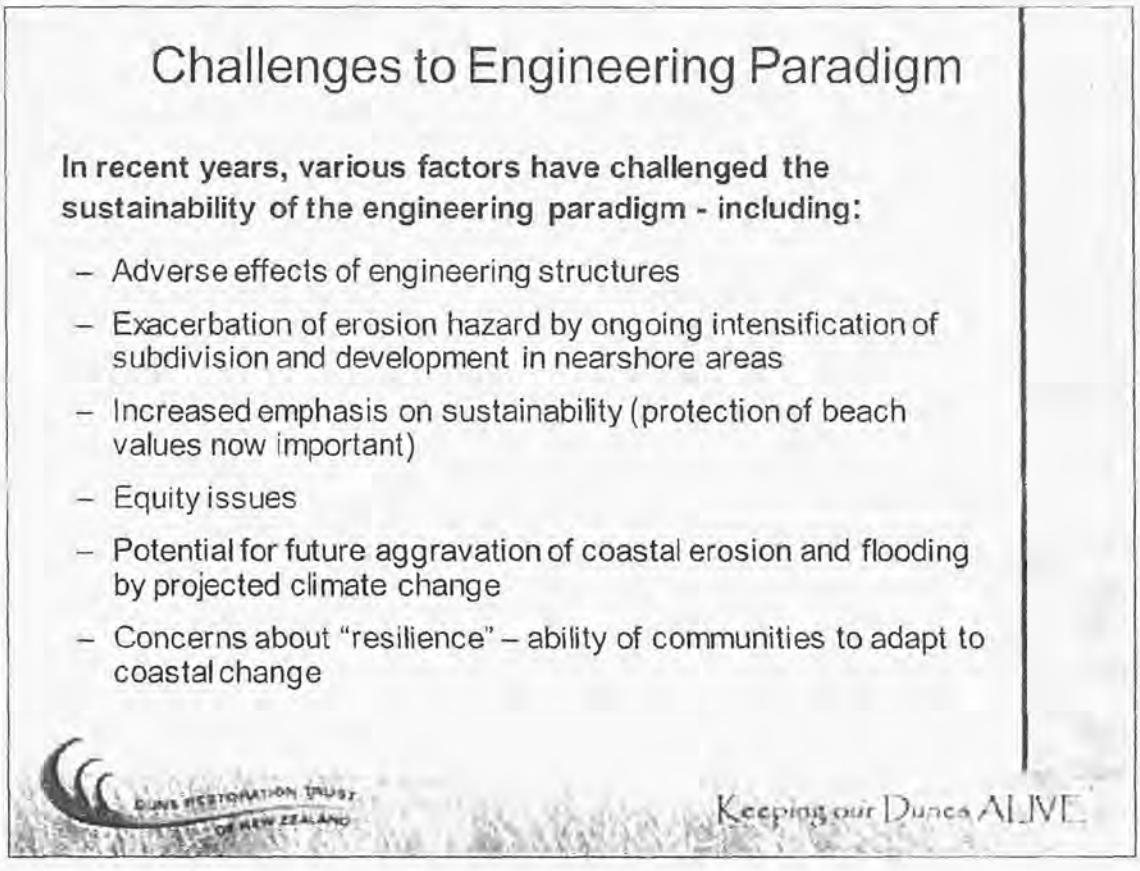
SECTION 4

COASTAL EROSION AND MANAGEMENT:

THE HUMAN DIMENSION



- Most so-called erosion problems arise from humans placing development too close to the sea
- Historically, the management of coastal erosion has been dominated by a coastal engineering paradigm
- This paradigm emphasizes adjustment of natural coastal behaviour rather than human behaviour – characterised by "holding the line", most typically using shoreline armouring



In recent years, various factors have led to changes in the engineering management paradigm:

- Recognition of human role in creating coastal hazard problems
- Adverse effects of engineering structures
- Potential for climate change to seriously aggravate coastal hazards
- Increased emphasis on sustainability
- Concerns about resilience of coastal communities

The new management paradigm places greater emphasis on:

- Managing ourselves – changing our behaviour rather than natural coastal behaviour
- Learning to understand and live with natural coastal change

Key tools these days are:

- Setbacks and development controls
- Looking after natural protection such as dunes
- In the future, "managed" retreat will become significant

Dune Management

The human dimension

- Successful dune restoration and management requires not only repair of damage, but also changes in human use and perception to prevent ongoing damage
- If you repair dunes without appropriate changes in human behavior, the gains will be lost

DUNE RESTORATION TRUST OF NEW ZEALAND

Keeping our Dunes ALIVE

Dune Management

The human dimension

- For these and related reasons, dune management is best undertaken using community-based approaches
  - e.g. Environment Waikato's Beachcare programme; Coastcare programme in Bay of Plenty; etc...
- National guidelines now available for community-based dune management in NZ
  - http://www.envbop.govt.nz/media/pdf/Report_Coastalhazardsandclimate.pdf

DUNE RESTORATION TRUST OF NEW ZEALAND

Keeping our Dunes ALIVE

Why use a community-based approach?

- Community-based approaches to dune restoration and management have significant advantages over traditional approaches in which local government has taken the prime responsibility for designing and implementing dune restoration programmes.
- Most dune damage arises from human activities and changes in awareness and behaviour are generally required for sustainable dune restoration. Investigations indicate that community-based dune management programmes are very effective in raising community awareness and changing attitudes and behaviour (e.g. Davies and Smith, 1991; McPhee, 1996; Fagan et al., 1997).
- Community-based partnerships can also empower local community and relevant stakeholder groups to have a more meaningful role in the management of beaches and coasts. The level of empowerment varies between groups and over time, but existing work has found significant attributes of empowerment among successful groups (e.g. Barrett, 1995; McPhee, 1996).
- Community-based partnerships also have a proven ability to achieve significant dune management outcomes (Davies and Smith, 1991; Dahm and Spence, 1997; Spence, et al., 1998; Jenks, 2003; Jenks and O'Neill, 2004). Most existing groups have also

exhibited long-term commitment and maintain some form of ongoing monitoring and maintenance of dune condition.

- Community-based dune management is also very cost effective relative to traditional engineering structures and has significant advantages in terms of natural and human use values (see section 6.4 below).
- The success of the groups to date suggests that community-based approaches have considerable potential in promoting increased awareness of coastal hazards and climate change and assisting in the development of more resilient coastal communities.

Initiation and Operation of Community-based Partnerships

- The processes involved in establishment and operation of community-based dune management groups vary considerably both within and between individual programmes, but usually involve the following activities:
  - Awareness of a need for dune management action at the particular site – often from community pressure.
  - Decision and commitment by relevant statutory agencies to promote a community-based approach.
  - Identification of key stakeholders and consultation with these parties to seek or test support for a community-based approach.
  - Establishment of a committee to co-ordinate the development of the dune management programme and community consultation.
  - Consultation over proposed actions and priorities – the scope of this work varying from site to site according to requirement.
  - Once an agreed dune management plan has been developed, the works are usually implemented at well-advertised working bees – with required plants and other materials provided by the supporting council(s).
  - Active promotion and educational work.

Key Principles for Successful Groups

- An open and inclusive approach is fundamental to group success and to ongoing community support - facilitators usually have a key role in helping develop and encourage this ethic within groups (Boyce, 1993; Dahm and Spence, 1997; Jenks, 2005; Turner, 2005).

- The adoption of consensus style decision-making is important. The temptation to rush action before consensus is reached can be very counter-productive and seriously alienate key stakeholders and interest groups. There is invariably other action that can be readily agreed and advanced while more difficult issues are being worked through.

- It is important for group development to get some early successes, "runs on the board". Start with relatively simple issues on which there is consensus. Group confidence and relationships improve and community support is strengthened as the group is seen to be achieving positive outcomes.

- It takes commitment for people to come to working bees and facilitators should ensure that everyone who turns up is able to be meaningfully involved. Take time to explain the tasks and also the purpose and the desired outcomes of the activity. Maintaining a mailing list for posting of occasional newsletters will assist in keeping the wider community up to date with activities and future working bees.

Information and Education

- This is probably the most important aspect of dune management in the longer-term as most dune damage requiring intervention usually arises from inappropriate human activities. Therefore, changes in beach user attitudes and behaviour are required for effective and sustainable dune restoration.

- The use of community-based partnerships for dune restoration is very effective in this regard and this aspect is discussed further in chapter 5. There are also many opportunities to get information into communities such as good informative signage, information materials, local community newspapers and radio stations and many other options.

- Coast Care programmes that involve schools are an excellent method for educating the younger generations of beach users!

For further information about this project and the

Dune Restoration Trust of New Zealand go to:

www.dunestrust.org.nz

DUNE RESTORATION TRUST OF NEW ZEALAND

Submission form Stage One Consultation

Review of Sandy Point Management Plan

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Please send your ideas and comments to the: Parks Manager, Invercargill City Council, Private Bag 90104, Invercargill 9840 — Ph: 03 219 9070, Fax: 03 217 5358, Email: parks@icc.govt.nz

Submitter's details:

Name: Eric & [illegible] Evans

Address: Lot 7 [illegible] Sandy Point Road

Postal Address: P.O. Box [illegible] Waikiwi

Phone: Invercargill 9843

Comments:

We are extremely happy with the management of the Sandy Point Domain which we feel is a great asset to the city & its people with so many clubs & facilities available. The ranger [illegible] is a great [illegible] very approachable & keeping the Domain very tidy & rubbish free. The only thing we would like to see is more measures to eradicate the Magpies as they are a threat to our native birds which there seems to be an abundance of at present.

(Use extra paper if required)

Signed: E. L. Evans E L Evans Date: 20 - 11 - 2011

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Georgetown Scout Group

Bain Park

Invercargill

25th November 2011

The Parks Manager

Invercargill City Council

Private Bag 90104

Invercargill 9840

Re Sandy Point Development Plan

Dear Robin

Thank you very much for the opportunity to comment on the Sandy Point Management Plan. We do not wish to make a formal submission because we feel that the work you have carried out in this area over the past few years is outstanding and a wonderful asset has been created for the residents of Invercargill.

However I have had a discussion with members of our Scout Troop - (ages 11 to 15) to get their views as they will be enjoying the attractions in the area in the years to come.

They came up with the following ideas -

A Extending the present loop track in Kilmock Bush westwards to the end of the valley, then south to link up to the road going into our campsite. This in effect would create a large loop track . It has the advantage of being very sheltered and it is an interesting walk through one of the few remaining areas of native bush.

B Developing public access and walking tracks in the area of the old gravel pits immediately to the north of Dunns Road and off the existing gravel pit road. If one of the larger ponds had tree plantings on the west side to give shelter it could be made into a safe area for kayaks and canoes. The Oreti River is not a safe area for young children in small boats. I have used the ponds for this purpose many times with our Scout Troop but it is difficult to get vehicle access into the area at weekends.

C Replanting the area of pine plantation along Dunns Road to prevent the spread of gorse and broom from the logged over area on to adjacent areas.

Yours faithfully

Russell Walker

Georgetown Scout Group

C/o 99 Centre Street

Invercargill

LAND APPLICATION OF BIOSOLIDS AT SANDY POINT

Introduction

Biosolids are produced from sewage sludge's during operation of the Invercargill City Councils Clifton Wastewater treatment Plant through a process of digestion, stabilisation and dewatering in lagoons and further dewatering by windrowing over a ten year period.

The biosolids contain useful soil and plant nutrients including organic carbon, phosphorus, nitrogen, base cation's including calcium, magnesium and potassium, and trace elements including boron, molybdenum and selenium.

It is proposed to apply the biosolids to very sandy soil in the Christies track area of Sandy Point. This area has previously been leased by Council for grazing, but the leases have now been terminated and it is planned to develop the area with native planting for recreational use. Biosolid application will improve soil condition and provide an improved environment for the planting programme.

Proposed Sandy Point Biosolids Application Site

The proposed biosolids application site is shown on the attached plan, and is approximately 42 Hectares in area, and located between Christies Track and the Golf Course, and approximately 200 meters from Oreti Beach.

This proposal will be subject to a resource consent application to Environment Southland. There would be up to three biosolids applications over the area over a ten year period. Each application will take two to three weeks, involving the transport of biosolids by truck from the Clifton Wastewater Treatment Plant, and spreading using agricultural machinery. Biosolids application would be at intervals of one to three years, depending on the volumes transported and are covered with each application.

Previous Biosolids Applications

Biosolids were applied to the southern part of the site (closest to Christies Track) in March 2010, and soils and groundwater have been monitored over the last two years. The monitoring was done by soil scientist Dr Phil Greenwood, and results contained in the attached report.

Dr Greenwood concludes that the application improved the soil condition of the site, had minimal adverse effect on the soil or the ground water, and that area is suitable for up to three repeat applications.

During March 2010 approximately 1000 tonnes of biosolids were trucked from Clifton and applied to 7.4 Hectares of land over a three week period. There were no complaints during the application period from recreational users of the area, and it would appear that the work was completed relatively unnoticed. In the two weeks immediately following the application, one recreational user of the area complained of odour, and this appears to have quickly dissipated.

Council's resource consent application to Environment Southland for consent for further Biosolids application will be based on the positive results within Dr Greenwoods report, and the low level of impact on recreational users during the previous applications.

Malcolm Loan
Drainage Manager - Invercargill City Council

Invercargill

Proposed Biosolids Application Area - Sandy Point

N

1:10,000

Submission form Stage One Consultation

Review of Sandy Point Management Plan

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Invercargill City Council
Private Bag 90104
Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Invercargill Rowing Club (Inc)
Address: 89 Sandy Point Road
P.O. Box 1138, Invercargill 9840
Phone: 217112

Comments:

A rowing precinct plan was developed by a joint Invercargill and Wakapai Rowing Club committee in 2009/10. This plan was to enhance the external facilities along side the Oreti River for use by all Southland rowers. Most of the development work has now been completed apart from the desire to have a cycle/walkway created along side the Oreti River from Dunns Road to the Water Ski and Runabout Club.

The creation of a cycle/walkway along side the Oreti River would enable the many athletes who run or cycle along the Sandy Point Road when training to use a much safer alternative. It is recommended that this proposal be included in the Sandy Point Management Plan

The milling of the pine plantation between the rowing clubrooms and the Water Ski and Runabout Club has removed shelter to the river from the prevailing SW winds. In particular the start line for local rowing regatta races. It is recommended that shelter planting be included in the Sandy Point Management Plan on the west side of the Oreti River

(Use extra paper if required)

Signed: [signature] Date: 29/11/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Heather Guise

From: Brian Railton [powerboat@actrix.co.nz]
Sent: Friday, 2 December 2011 13:49
To: Parks & Reserves General email
Subject: Review of Sandy Point Management Plan

Submitter's Details

Lower Oreti River Recreational Management Group
C/ 37 Alma Street
Wyndham 9831
Phone 03 2064454

Comments:Our group would like a discussion on this review of the Sandy Point Management plan.

1.
Our group are in the process of restoring the Lower Oreti waterway and a feasibility study has been completed.
In the future an area will be needed and to be designated to place spoil and allowing it time to be returned to useful soil.
The need for access to the waterways.

2.
The consideration of protection of all club facilities from vandalism.

3.
The consideration of the placement of recreational facilities ie toilets/ playgrounds and the affect on other users ie their facilities.

4.
The consideration of "new" activities on Lower Oreti river re access and placement.

5.
The consideration of cost to all users in the Sandy Point area. Should their be limitations.

Yours faithfully
Rose Marie Willis
Acting Secretary.

Submission form Stage One Consultation

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Submitter's details:

Name: Brian + Kath McDonagh

Address: Bach # 1 Coopers Creek / Woodlands RD 2 Invercargill

Phone: 213281 / 215352 / 0272818643

Comments:

We have owned # 1 at Coopers Creek for approx 5 years. We love the beauty of Coopers Creek and surrounds and relish the time we spend at "The Creek".

Suggestions to consider in management plan:

- Regards Heritage Hill we notice the grass to the left of " " reserve has been let to grow. We have seen fires being lit in this area especially Dec/Jan/Feb and think this increases fire risk i.e. sparks etc catching on long dry grass. maybe a clear sign to prohibit fires in this area
- In last 2 months have seen several pest type critters (weasels / stoats?) running across road continued vigilance on the pest front ✓
- Appreciate native plantings in the area. Miss the pines too! Hope replanting some pines is in the plan.
- Could do with more rubbish bins eg Whalers Bay & down at the point. We often walk & attempt to pick up rubbish as we go.
- Dogs frequently not on leads on tracks on plus side though tracks usually clear of doggy poos!
- Big thumbs up to Mr Lawn Mower & his tractor sides of roads & reserves very well kept - Thank you.

Hope this is useful as you consider plan.

(Use extra paper if required)

Signed: K McDonagh Date: 1.12.11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill Parks

From: Michael Goldstein [mailto:michael.poole.goldstein@gmail.com]
Sent: Monday, 21 November 2011 3:57 p.m.
To: Tim Shadbolt; Parks & Reserves General email
Subject: Sandy Point & Golf

Dear Sir/Madam,

I write in relation to Sandy Point and, specifically, it's potential as a world class golfing destination.

I am New Zealander, originally from Christchurch who has a deep love of the game of golf. After a short stint as a corporate lawyer in Wellington, I have been traveling the world visiting the best golf courses on the planet and now work in the developing Chinese golf industry.

For over a year, the Sandy Point land has been on my mind because I strongly believe it to be the best golfing land in New Zealand.
Given that your council is now beginning a public consultation about the use of Sandy Point, I felt it necessary to email the council to share my vision.

This vision is based on the very successful golfing venture in Bridport, Tasmania called Barnbougle Dunes. Barnbougle Dunes is a public golfing facility located one hour drive from Launceston that has achieved worldwide notoriety and has captivated the golfing public from across Australia and further afield. The first golf course built in Bridport was so successful for the local area that the Council gave the owner a grant to help build a second golf course. Now, with two golf courses operational, the flights to Launceston (and directly to Bridport) are full and the area is thriving from golf tourism.

The reason that Barnbougle Dunes was so successful is because the land is perfectly suited for golf. The courses are natural, unlike most golf courses seen on TV. They don't have houses around them and preserve the natural dune land. In the United States of America, a similar project (with the same founder) has been hugely successful, both financially and environmentally in the small town of Bandon, Oregon.

Both Barnbougle and Bandon share similarities with the land at Sandy Point. They are both very remote destinations yet feature remarkable golfing terrain. Their business model is simply to build world beating golf courses and wait as the golfers come - as their owner says "build it and they'll come". I know another golf enthusiast who has invested heavily in New Zealand is looking for property of this calibre and would be prepared to fund a similar project.

Obviously, the critical difference is that the land at Sandy Point is owned by your council.
Accordingly, I would like to start a dialogue with you about your plans for the Sandy Point site and your advice about the best way of progressing this matter further.

I look forward to hearing from you,

Regards
Michael Goldstein

+61 424243621
+86 18789265074

[redacted]

Review of Sandy Point Management Plan

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Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Southern Trail & Pleasure Horsemen page # 1/2

Address: c/o Irene Tresidder
155 Onsdale Rd Myross Bush RD2 Ingill

Phone: 2304860 (email aquilavtwin@xtra.co.nz)

Comments: Dear Robin

Thank you for the opportunity to comment on the plan.

We have enjoyed 30+ years riding at Sandy Point & use the area as our base. We have an annual working bee on the horse tracks to help maintain the area. As individuals some of us use the area nearly every day. People also travel from Gore, Winton & Woodlands on a weekly basis.

We would like to keep as much access as possible for horse riding, as it is so good underfoot.

We would like to see signs especially on Cryslers Rd, indicating that this is a horse area & that you should expect to encounter horses.

We are having numerous issues with cyclists on the tracks & have told them there is an area for them. One person recently screamed at us that he had ICC permission to bike there. Most horses have a real aversion to bikes for some reason & as they are a prey animal I guess they assume the worst.

(Use extra paper if required)

Signed: Irene Tresidder Date: 30/11/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Page (1)

Parks

[redacted] form Stage One Consultation

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Email: parks@icc.govt.nz

Submitter's details:

Name: Southern Trail & Pleasure Horsemen – page #2/2
Address: C/O I Tresidder
RD2 Invercargill
Phone: 2304860

Comments:

Dogs not on leads are a huge problem especially when they become excited about seeing a horse & lose the plot when their owner calls them. This applies to riders & walkers & cyclists all having their dogs with them. Not quite sure what we could do about it as it's a great area to take dogs.

Our club stresses the importance of looking after the area especially the float park area. While we get frustrated with some riders not cleaning up droppings etc. on the whole it's not too bad. We have noticed the local "hoons" tearing up the grass and that's happening everywhere.

Robin indicated that there may be a track made connecting the Equestrian Centre to Crastes Rd. Is this still a possibility?

The biggest thing for us would be signage & controlled access to the area for what is a growing activity. There is nowhere else as safe & off the road as this wonderful area.

Signed: Irene Tresidder Date: 30/11/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Page (2)

SCANNED

Submission form — Stage One Consultation

Review of Sandy Point Management Plan

~ 9 NOV 2011

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Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Southland Clay Target Club

Address: PO Box 601
Invgill

Phone: 03 2130480

Comments:

As a club we would like to see more input into the eradication of Pest's - primarily Rabbits also opposum - Rabbit holes are very dangerous ne sprained ankles etc also for sports horses etc.
Another aspect is the trees. We need more trees for wind break along the Sandhills - Stop erosion - & to give shelter

Thanks

(Use extra paper if required)

Signed: [signature] Sec

Date: 8.11.11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Submission form Stage One Consultation

SCANNED

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Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Jenny Miller on behalf of Committee (SGSDC)

Address: 42 Edinburgh Crescent Invercargill

Phone: 03 2157885 027 2157885

Comments:

I would like to say as a committee member of Southland German Shepherd Dog club, we think Sandy Point is a fantastic asset to the South. Beautiful walking tracks, vast areas well maintained, and enjoyed by people from all walks of life. We are so lucky to have this wonderful area on our doorstep.

Parks & Reserves have usually been very helpful in finding us safe training grounds for our dogs.

We would like to include a request from the club, that Invercargill City Parks Division, consider exercising some discretion over the use of their sports grounds. eg maybe we could have discretion to allow for "Organised events run by a recognised club" to allow club to have an event on a ground with facilities eg toilets, cooking etc. In christchurch "The German Shepherd Nationals" are held on a large Rugby Ground, with great facilities. This attracts dog owners & breeders from Australia & NZ.

(Use extra paper if required)

Signed: (on behalf of SGSDC) Date: 2/12/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

2/29/2012

Southland Mountain Bike Club Incorporated
PO Box 1288
Invercargill 9840

Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Dear Mr Pagan

SANDY POINT MANAGEMENT PLAN

The members of the Southland Mountain Bike Club committee wish to submit the enclosed comments regarding the review of the management plan for Sandy Point.

As discussed with you earlier in the month, this submission is very late. On behalf of the club I really appreciate you being open to receiving such a late submission, thank you, and we look forward to viewing the draft plan when it is released to public.

Regards

Yvette Hodges

Secretary

Southland Mountain Bike Club

Review of Sandy Point Management Plan

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Please send your ideas and comments to the:

Parks Manager
Invercargill City Council
Private Bag 90104
Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Southland Mountain Bike Club

Address: P.O. Box 1288
Invercargill 9840

Phone: Dave Brookland (03) 2140112 - President

Comments:

Thank you for the invitation to submit comments and suggestions for this draft plan.

The Southland Mountain Bike Club support:

- Controlled logging
- Improved cycle access - and we offer our own input
- Tighter control of access to designated areas, and clearer guidelines eg. Horses not going north of Christies Road into MTB trails.
- Continued consultation around logging and around development of the area

The club also appreciates the quick rebuild of the toilet in the mountain bike car park and the efforts the council has made for the upkeep of that area.

(Use extra paper if required)

Signed: ybodges (Secretary) Date: 29-2-2012

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Submission form — Stage One Consultation

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Ph: 03 219 9070
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Email: parks@icc.govt.nz

Submitter's details:

Name: Svend Pedersen for Southland Orienteering Club Inc

Address: 226 Dunns Road, Otatara
RD 9, Invercargill 9879

Phone: 03-213066 or 027 854 8122, svendp1@kinect.co.nz

Comments:

The Southland Orienteering Club was established in 1980 and since then has been a regular user of the Sandy Point forests which we consider our major sports ground. During the past 30 years our club has spent tens of thousands of dollars mapping the area to international orienteering specifications.

Orienteering is a developing sport in Southland. At present we have 91 members. In the past year we have had an average of 90 people attending each club event. In addition to that we have organised training events for 500 school children at Sandy Point.

Our sport is, like all other sports, governed by international rules which dictates the way we use the forest. Beginners and children navigate by using the tracks and the more experienced orienteers navigate off the tracks using contours and other features and a compass. When a forest block become impassable because of undergrowth (gorse, broom, blackberry) or silviculture work such as thinning to waste, then the forest is impenetrable and therefore unsuitable for orienteering. Thinning to waste is a real setback for our club because it takes about 10 years for the waste to break down. Consequently we never have the whole area of forest available for orienteering. Also, some areas have been impossible to use because of blackberry infestation.

From our point of view, the more Pine forest the better at Sandy Point and we are at a loss to understand why some areas, ideally suited for growing pine trees, has instead been growing lupins for the past 30 years. We would like to see more areas planted with Pine trees in the future. Not just for our use but for financial benefit for the city and also as a small tool against global warming.

continued

Signed: [signature]

Date: 30/11/2011

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

The existing Sandy Point Management Plan operating from year 2000 and for a period of 10 years shows a disturbing trend in planning to change forested areas to "*Future Environmental*" (Rover track and Petries track area). But worse still:"*Ultimately, the Domain will become one environmental, recreation area*" and suggestions that forestry be retired to make way for native vegetation.

The Southland Orienteering Club is totally opposed to such a management plan. If implemented it will completely destroy our club activities especially for school children who depend on this area so close to the city. In the past we have never been allowed to use any of the native forest for orienteering and the area already converted from forestry to native vegetation (gorse included) is now an impassable jungle, whereas it previously was runnable forest and used for orienteering. Making such changes to the Sandy Point Domain is, we believe, contrary to the Reserves Act.

It must be remembered that the Sandy Point Domain is classified as a RECREATION reserve, not just an environmental reserve. We believe that the changes suggested in the management plan does not comply with the Reserves Act because our sport and our enjoyment of the reserve will not be conserved as required by the act.

In the past few years we have had a problem finding a suitable space for parking when using the southern part of Sandy Point and we ask the Parks Division to consider this when taking over the leases in about 5 years time. An open area off the road on the Rooney lease would be ideal.

In conclusion we would like to express our appreciation of the work done by the ICC Parks Division in keeping the whole Sandy Point area in pristine condition (grassed areas mowed, providing toilets, removing litter etc). We occasionally have visitors from Dunedin coming to our events and have noted their positive comments about the Sandy Point area.

Submission form Stage One Consultation

Review of Sandy Point Management Plan

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Email: parks@icc.govt.nz

Submitter's details:

Name: Southland Pony Club

Address: 105 John ST Invercargill 9812

Phone: 2168045

Comments:

As one of the parties involved in the Southland Equestrian Centre our Club would like to see the operation of the Centre to continue along the present lines

As regards the cross country course the club has established on the land adjacent to the centre for about twenty seven years we have a strong desire to use this land on the present bases where we apply in advance for the uses each year. At present we are the only equestrian user of this area and would like see this continue. We do however believe other groups such as harriers, orienteers, leisure walking groups could use the area.

We are aware of the possibility of an accessway for horse riders being established along the coastal plantation along the western side of the land we use. The club committee supports this proposal provided a stock proof fence is erected between the accessway and the land we use. We will lose the use of land we have spent considerable time and funds levelling the ground and building jumps. We appreciated the mowing work done by Parks Division to help establish the land we will need to move onto one further mowing would be appreciated.

We would also appreciate being involved in discussions on how access will be made between Pacific Ave and the accessway along the plantation.

(Use extra paper if required)

Signed: J N Griffin for Southland Pony Club

Date: 1-12-11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Heather Guise

From: Brian Railton [powerboat@actrix.co.nz]
Sent: Friday, 2 December 2011 13:50
To: Parks & Reserves General email
Subject: Review of Sandy Point Management Plan

Submitter

Southland Power Boat Club
PO Box 1066
Invercargill

Our club supports the Lower Oreti River Recreational Management Group in improving the Lower Oreti river and it's environs.
Our club wish to protect our own identity, space, foreshore and the abiility to improve and maintain the same.

Yours faithfully
Rose Marie Willis
Secretary

Submission form Stage One Consultation

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Invercargill 9840

Ph: 03 219 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details: SOUTHLAND RODEO ASSN

Name:

Address: SOUTHLAND RODEO ASSN
C/- K. BELL
248 LONGBUSH SOUTH ROAD
RD1
INVERCARGILL 9871

Phone: 03 230 6889

Comments:

(A) We would like to have our entranceway formed up and gravelled. This is very rough due to the regular use by car parking on the grassed area in the entrance to our facilities. Most of these cars (up to seven per day) are owned by students attending the Polytechnic loader/digger course held at the Southern Aggregates gravel pit and get picked up there in a van.
We feel that gravelling our entranceway properly and maintaining it would give us some equitable return for our rates/rental spend.

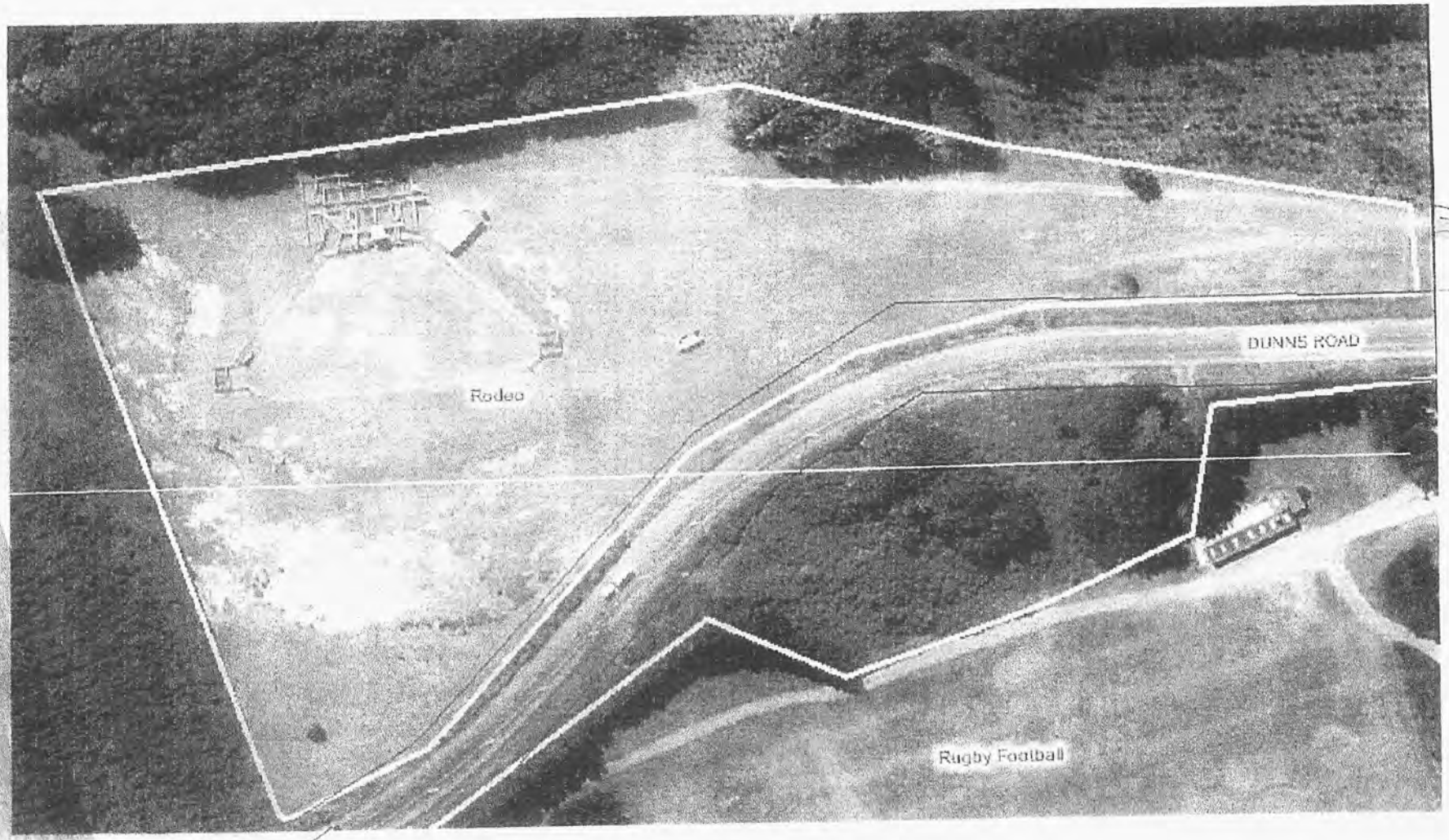
(B) The area to the west of our facilities is classed as a "buffer" zone. Although trees have been planted in the past they haven't struck any success in growing. We would be keen to lease this area or half of it to add to our lease area for car parking. I do believe that half this area does need to be a buffer zone and we would clear and level the other half.

(Use extra paper if required)

Signed: K Bell Date: 30-11-11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill Parks



Entrance / access
and maintained

301

Cleared + levelled area

Buffer area

Review of Sandy Point Management Plan

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Email: parks@icc.govt.nz

Submitter's details:

Name: Southland Sled Dog Association
Address: 7 Chapman Street Invercargill

Phone: 2173169

Comments: Please refer to attached letter dated 1 December 2011.

(Use extra paper if required)

Signed: [signature] Date: 1/12/2011

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill Parks

President. Haakon Berg
14 Dunlop Street
WALLACETOWN

Secretary: Ragnar Berg
7 Chapman St
INVERCARGILL

Southland Sled Dog Association

1 December 2011

Parks Manager
ICC Parks Division
Private Bag 90104
INVERCARGILL 9840

Dear Sir,

We would like to see the following considered as part of the Management Plan for Sandy Point Domain:

- The area North of Dunns Road, sometimes referred to as the Sled Dog Area which excludes Kilmoch Bush walking track and Fosbender Park, near Dunns Road Bridge to be categorised as a recreational area that is dog friendly and include sled dog sports, running, walking, mountain biking, orienteering and scout organised activities.
- We support the formation of a native bush belt along either side of the established trails in the clear felled areas.
- A Car Park constructed at the entrance gate to the Scout Camp / Sled dog Sports Staging area with Public Toilet and Refuse Bin within ease reach of the Car Park similar to Kilmoch Bush entrance.
- We acknowledge that there are signs already at most access points. There are five access points to this area that we are aware of. We would like to see the following signage at each access point: No Horses, No Trail Bikes and Pick up Dog Poohs.
- We support retaining the remaining sections of forest as they are and that a "corporate" sponsor is found that will provide funding to avoid the need for clear felling. Visitors to the area enjoy the forests and it would be sad to see the remaining sections felled. The Sled Dog club would like to utilise more of the forested areas by forming trails that meander through the forest sections, giving all visitors the opportunity to experience and enjoy the shelter and peace that a mature forest provides. We understand and accept that if a sponsor cannot be found or that the government can't be convinced to forego the loan repayment, the rest of the forest will have to be felled.
  Another benefit of having trails running through the forested sections is that the trails don't need slashing because the grass growth is suppressed.

We believe that our needs are simple. What we do and have achieved in the area has benefitted a lot of people, going by the popularity of the area.
In our opinion, Sandy Point Domain, including the sled dog area is the envy of many communities if they only knew what Invercargill has. No other community can boast to have such an extensive recreational area 10 minutes from the city. From our perspective it is the only place in New Zealand that has a sled dog area and we are grateful to have the opportunity to participate in the development of the area. The trail network benefits a large proportion of the community.
Thank you for the invitation to make a submission.

Kind regards,

Ragnar Berg
SECRETARY
SOUTHLAND SLED DOG ASSOCIATION

Review of Sandy Point Management Plan

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Invercargill 9840
Ph: 03 219 9070
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Email: parks@icc.govt.nz

Submitter's details:

Name: Southland Sports Car Club
Address: Sandy Point Road
Otatara
Phone: 2130522.

Comments:

Our wishes dependant on finance being available for the next 10 years would be as follows.

Reinstate race bases,

Build spectator banking at back yard, hair pin and Corsa corners.

Build extra grass tracks in the west car parks.

Widen the main straight and provide facilities at the north end of the circuit for the Drags Club.

Relocate the pits from infield to the east side.

(Use extra paper if required)

Signed: Mungo Ford-Smith, President Date: 2-12-11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

Review of Sandy Point Management Plan

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Ph: 03 219 8070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: Juanita Tresidder

Address: 155 Drysdale Rd, Myross Bush, RD2, Invercargill

Phone: 03 2304860 021 045 3717

juanitatresidder@hotmail.com

Comments: Page 1 1/2

Sandy Point is a fantastic asset for the city and a point of pride for me, my family + friends that we have such a wonderful resource at our back door. Along with the range of equestrian groups/clubs that ride there, we all appreciate the variety available (from narrow bush trails to open land, sheltered lane-ways through the pine trees, open plains to sand hills + beach). It is an ideal location for equestrian activities year round due to the sandy soils providing a solid footing with minimal mud considering the Southland weather!

We appreciate having horse-specific trails, which adds to the safety factor for all users.

I would like to see Sandy Point considered for development of an equestrian facility, which could in fact be used for a range of sports - it would make a fantastic site for now! As P Shaw mentioned that could be part of those facilities. The sandy footing and beautiful setting makes it ideal for this kind of complex. It could include an indoor arena, outdoor sand arena and outdoor grass arena for example. I would refer to the Wanderville Sports Complex in Christchurch as an example in a similar setting that is home to a range of sports including arenas which makes it a hot spot for events. A multi-use arena facility would really add value to Sandy Point, making it even more marketable all year round.

Finally - a big thank you to the city for providing + maintaining such a great recreation space.

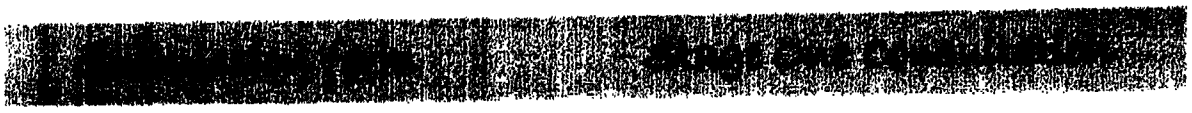
(Use extra paper if required)

Signed: [signature] Date: 2/12/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks



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Fax: 03 217 5358
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Page # 2/2.

Submitter's details:

Name: Juanita Tresidder

Address: 155 Dyesdale Rd, Myross Bush, RD2, Invercargill

Phone: 03 2301860 021 045 3717

juanitatresidder@hotmail.com

Comments:

Addition to page #1

- The number of people using the horse area is increasing, so it would be good to look at enlarging the parking area at some point. Possibly flattening it out a bit also?
- It would also be worth considering joining up the existing equestrian centre on Dunns Rd to the Sandy Point area.

(Use extra paper if required)

Signed: [signature]

Date: 2/12/11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill

Parks

SCANNED

Submission form — Stage One Consultation

Review of Sandy Point Management Plan

17 NOV 2011

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Ph: 03 218 9070
Fax: 03 217 5358
Email: parks@icc.govt.nz

Submitter's details:

Name: P. J. Sinclair (Waihopai Rowing Club)
Address: 425 Oteramika Road
Invercargill
Phone: 2304452

Comments:

The Waihopai Rowing Club propose for consideration by the Sandy Point Management Plan the provision for the following.

1. Support for the lower Oreti Recreational users group project to solve difficulties of river use due to siltation.

2. A walkway/cycle track on the western river bank from Dunns road bridge to ski boat club.

3. Cycle lanes on Sandy point road.

4. Beautification of river bank from Power boat club to south end of soccer grounds

5. Provision of car park areas opposite Waihopai Rowing Club.

6. Plans for/development of a 2,000m rowing course in Oreti river, and or development of gravel pit areas into 2,000m course.

7. Permanent shelter on western bank of current rowing course - 500m is now exposed by recent forestry removal.

(Use extra paper if required)

Signed. P.J. Sinclair Date: 14-11-11

Please return to the Parks Manager by
4.00pm Friday, 2 December 2011

Invercargill Parks

TO: **INFRASTRUCTURE AND SERVICES**

FROM: **THE DIRECTOR OF WORKS AND SERVICES**

MEETING DATE: **MONDAY 27 AUGUST 2012**

TEMPORARY ROAD CLOSURES – TWO LITTLE BOYS MOVIE PREMIER

Report Prepared by: Russell Pearson – Roading Manager

SUMMARY

A temporary road closure of parts of Kelvin and Tay Streets is required to allow the safe running of the movie premier and a Council resolution is required to permit the closure to be undertaken under the Local Government Act.

RECOMMENDATIONS

That Council resolves to permit the following streets to be closed between 12.00 noon and 12.00 midnight on 11 September 2012:

Kelvin Street	**Tay to Esk Streets**
Tay Street	**Kelvin to Deveron Streets**

IMPLICATIONS

1.	*Has this been provided for in the Long Term Plan/Annual Plan?* No
2.	*Is a budget amendment required?* No
3.	*Is this matter significant in terms of Council's Policy on Significance?* No
4.	*Implications in terms of other Council Strategic Documents or Council Policy?* No
5.	*Have the views of affected or interested persons been obtained and is any further public consultation required?* Yes. Shop owners in Tay Street will be consulted.

FINANCIAL IMPLICATIONS

None.

Background

The Premier of the movie "The Two Little Boys" is planned for the 11 September 2012.

A number of road closures are required to ensure this event can be run safely.

Under Section 342(1)(b) the Local Government Act 1974, Council has the authority to temporarily close roads for the purpose of public functions as set out in Clause 11(e) of the Tenth Schedule.

Council must consider and if appropriate resolve to permit the temporary closure of any road.

The roads proposed to be closed on Tuesday 11 September 2012 from 12.00 noon and 12.00 midnight are:

Kelvin Street	Tay to Esk Streets
Tay Street	Kelvin to Deveron Streets

CONCLUSION

The above roads are required to be closed such that the event can be managed safely.

****

TO: **INFRASTRUCTURE AND SERVICES**

FROM: **THE DIRECTOR OF WORKS AND SERVICES**

MEETING DATE: **MONDAY 27 AUGUST 2012**

QUEENS DRIVE UPGRADE STAGE 3 TAY STREET TO GALA STREET

Report Prepared by: Russell Pearson – Roading Manager
Robin Pagan – Parks Manager

SUMMARY

Further investigations for the Queens Drive Project has shown the Bluff watermain can sustain the road being built over it and this report identifies two options available so that this project can continue. The report highlights the remaining land issues.

RECOMMENDATIONS

That Council resolves to commence the process to take reserve land along the west side of Queens Drive for the purpose of roading (shown as the blue area in Appendix 1) utilising the Public Works Act.

IMPLICATIONS

1.	*Has this been provided for in the Long Term Plan/Annual Plan?* Yes
2.	*Is a budget amendment required?* No
3.	*Is this matter significant in terms of Council's Policy on Significance?* No
4.	*Implications in terms of other Council Strategic Documents or Council Policy?* No
5.	*Have the views of affected or interested persons been obtained and is any further public consultation required?* Further public consultation is required.

FINANCIAL IMPLICATIONS

The process of taking land will incur costs associated with consultation, survey, valuation and payment for land which is taken.

BACKGROUND

The proposed project to upgrade Queens Drive between Tay and Gala Streets highlighted issues along the eastern side of Queens Drive where a number of fences were not located on the boundary but into the road reserve and that the Bluff water supply main (located in the current footpath) could not have the road built over it.

The design for Queens Drive looked to provide two lanes of traffic in each direction and to achieve this, the full road reserve width would be required.

Affected Queens Drive residents suggested that Council consider relocating the road towards the Town Belt reserve to minimise the impact on their properties.

The Parks Manager questioned the need to take land when there was land already set aside for this purpose.

Further detailed investigations have been undertaken and through detailed sampling and testing it has been agreed that the road structure can be built over the Bluff watermain. Through this testing the expected life and strength of the pipe has been more accurately assessed and this new information indicates that building the road over the pipe would be feasible.

A number of different road layouts have been considered to see if any alternatives would be acceptable whilst not requiring the fences to be moved. The road reserve width varies along these two blocks and this complicates the potential to design the new roadway.

The Parks Manager has clarified the requirements for considering any encroachment into the reserve. The Town Belt Reserve is seen by many as a very important reserve within the structure of Invercargill's reserves.

Discussions between the Parks and Roading Managers highlighted a number of shared footpath initiatives can be achieved to fit within the Town Belt Management Plan and also provide excellent use of the reserve.

By agreeing how to manage the footpaths, only the physical kerb to kerb road needed to fit within the "road reserve". The areas where the road projected over the reserve have been highlighted and are relatively minor.

The areas are as follows:

Location	Area Required (m2)	Total Reserve Area (m2)	Percentage
Tay Street to Don Street	280	19533	1.43
Don Street to Yarrow Street	380	19730	1.93
Yarrow Street to Gala Street	15	19294	0.07

It would seem that there are two options to consider:

1. To utilise the Public Works Act to take the reserve land or
2. Enforce the recovery of the occupied land on the east side.

Council's direction on this issue is sought.

To start the process, Council would need to resolve which the most desirable solution was.

Plans of the proposed road layout, agreed footpath locations and areas proposed to be taken are attached in ***Appendix 1***.

If the direction is taken to acquire the land from the Town Belt then this needs to be resolved prior to the final adoption of the Town Belt Management Plan review.

The Engineering staff are still working through the remaining issue of the solid median which is being proposed to improve safety by limiting north bound traffic from turning directly into driveways.

CONCLUSION

Queens Drive is an important and strategic north south roading link for Invercargill.

A resolution of the issues needs to be achieved for the project to proceed.

The additional research into the watermain has shown it is suitable to be built over and has removed a large unknown in the project.

There are two options to acquire the necessary area to construct the road and Council direction as to which option to take is being sought. The taking of land by utilising the Public Works Act is seen as the better solution.

****


Area to be taken 280 m²
Total Reserve Area 19533 m²
17
15
19
23
25
29
31
35
39
43
45
49


Area to be taken 380 m²
Total Reserve Area 19730 m²
43
45
49
55
59
61
63
69
71
79
81
197
186


Area to be taken 7 m²
Total Reserve Area 19294 m²
196
196
186
101
107
109
113A
119
123
197

TO: **INFRASTRUCTURE AND SERVICES COMMITTEE**

FROM: **THE DIRECTOR OF WORKS AND SERVICES**

MEETING DATE: **MONDAY 27 AUGUST 2012**

SIGNAGE - INVERCARGILL ROWING CLUB

Report Prepared by: Robin Pagan - Parks Manager

SUMMARY

The Invercargill Rowing Club at Sandy Point has requested additional signage on their Clubrooms at Sandy Point

RECOMMENDATIONS

That additional signage on the frontage of the Invercargill Rowing Club building to permitted but limited for a period of two years and that no commercial advertising be allowed on the signage or photographs.

IMPLICATIONS

1.	*Has this been provided for in the Long Term Plan/Annual Plan?* No
2.	*Is a budget amendment required?* No
3.	*Is this matter significant in terms of Council's Policy on Significance?* No
4.	*Implications in terms of other Council Strategic Documents or Council Policy?* Sandy Point Management Plan
5.	*Have the views of affected or interested persons been obtained and is any further public consultation required?* No

FINANCIAL IMPLICATIONS

Nil.

SIGNAGE INVERCARGILL ROWING CLUB

The Invercargill Rowing club has requested permission to erect additional signage on their building to celebrate the Olympic success of Nathan Cohen. Annexed hereto as ***Appendix 1*** is a copy of their request.

The proposal is additional to the permitted signage allowed for in the current Sandy Point Management Plan and so Council permission is required before this can proceed. This would be a good way to celebrate the Club's success but it is important that it does not include any other form of advertising on the signage or photographs. As the sign will be on the north wall and the building is set back from the Sandy Point Road it will not be too intrusive on the landscape.

CONCLUSION

A short term signage to celebrate an achievement or activity will have limited effect on the Reserve.

****

Invercargill
ROWING CLUB
P.O. BOX 1138 INVERCARGILL 9840
invercargillrowingclub@gmail.com

Invercargill City Council Reserves Dept

Private Bag 90104

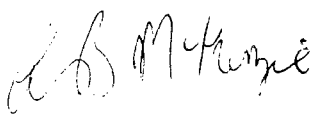
Invercargill

Dear Robin

Further to our discussion on Thursday 16 August 2012 regarding approval to extend our signage on the front of our rowing club building to publicize the achievement of Olympic Gold Medallist Nathan Cohen. Our proposal is to extend the existing sign as shown on our submission. This is also subject to approval for the use of the photo by us from the Southland Times.

If there are any queries please do not hesitate to contact me on my cell phone 027 2779279.

Yours faithfully



Barry Mckenzie

Photo not to correct scale

INVERCARGILL ROWING CLUB

Est 1875

Home Club of Olympic Gold Medalist Nathan Cohen

Back ground of sign would match weather board colour

3222


INVERCARGILL ROWING CLUB
Est 1875
Photo
700
1100
Wording
3600
900

TO: **INFRASTRUCTURE AND SERVICES COMMITTEE**

FROM: **THE DIRECTOR OF WORKS AND SERVICES**

MEETING DATE: **MONDAY 27 AUGUST 2012**

REQUEST FOR WOODEN MEMORIALS - EASTERN CEMETERY

Report Prepared by: Robin Pagan - Parks Manager

SUMMARY

A request has been received to erect two wooden memorials at the Eastern Cemetery. Wood is a material not allowed for in the Bylaw, but can be approved by Council Resolution.

RECOMMENDATIONS

Council direction is requested.

IMPLICATIONS

1.	*Has this been provided for in the Long Term Plan/Annual Plan?* No.
2.	*Is a budget amendment required?* No.
3.	*Is this matter significant in terms of Council's Policy on Significance?* No.
4.	*Implications in terms of other Council Strategic Documents or Council Policy?* No.
5.	*Have the views of affected or interested persons been obtained and is any further public consultation required?* Next of kin.

FINANCIAL IMPLICATIONS

Nil.

REQUEST FOR NON-STANDARD MEMORIAL

A request has been received to allow Totara memorials to be erected on two separate burial sites.

The current Bylaw Section 26(b) - Erection of Memorials (vi), (vii) and (viii) states:

"26. ***Memorial Park (Berm or Garden) Cemeteries presently operating at Eastern and Greenpoint Open Cemeteries***

(b) Erection of Memorials

(vi) No erected memorial shall, at the head of any plot, be higher than 1.5m. Such memorial shall comply with sound engineering principles. All structural materials used in the memorial shall exhibit high atmospheric corrosion-resistant properties and have a minimum predicted service life of fifty years. Any stone selected shall be sound, durable and of proven suitability.

(vii) Memorials are permitted to be constructed from natural stone. Clear or frosted glass memorials, subject to design, will be approved by the Parks Manager. The memorial is permitted to be coloured. No memorial will be permitted if it is deemed offensive. The plans of any memorial shall be submitted to, and approved by, the local authority before the erection of any such memorial is permitted in accordance with the Sixth Schedule.

(viii) If a memorial is deemed inappropriate by the Parks Manager, an applicant may apply, in writing, for the application to be reconsidered by Council."

The Bylaw does not allow for wood to be used, however an applicant may apply to Council for this to be reconsidered. A copy of the design of the memorials is attached as ***Appendix 1***.

CONCLUSION

The Applicant has indicated that the Totara memorial would withstand a minimum life of 50 years.

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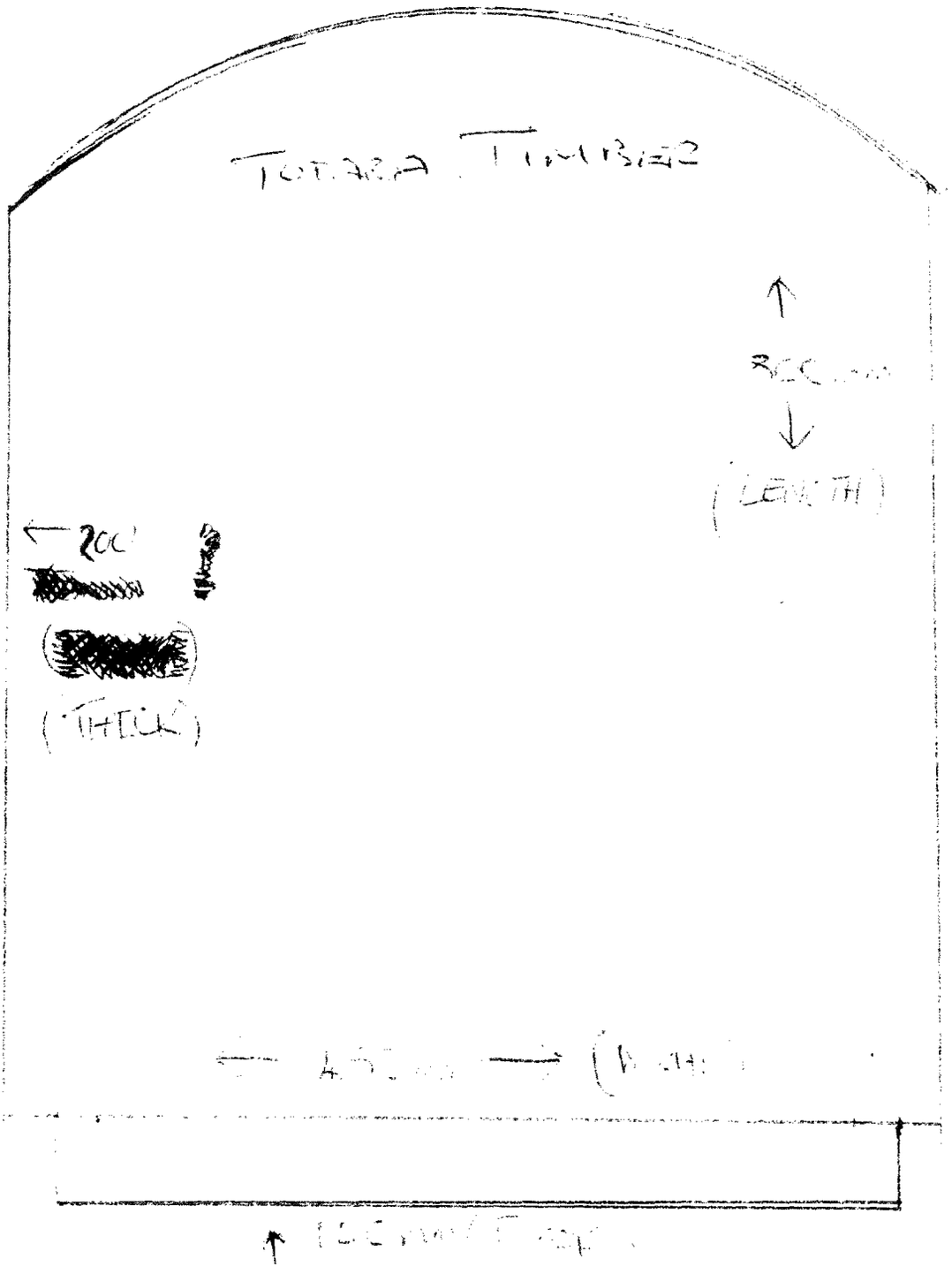
TOTARA TIMBER
(LENGTH)
(THICK)

TO: **INFRASTRUCTURE AND SERVICES COMMITTEE**

FROM: **THE DIRECTOR OF WORKS AND SERVICES**

MEETING DATE: **MONDAY 27 AUGUST 2012**

THE WATER TOWER AND WATER WORKS CONTROL ROOM BUILDING: EARTHQUAKE RISKS

Report Prepared by: Alister Murray – Water Services Manager

SUMMARY

Informative: Both the Water Tower and the Control Room Building (the building to the north of the Water Tower and behind the Gala Street Reservoirs) have been assessed by the Beca Engineering Consultancy as being Earthquake Prone buildings. The risk posed by both the Water Tower for public access and the Control Room as a place of work is considered too high to be allowed to continue. Accordingly the immediate risk has been reduced by continuing to keep the Water Tower closed for public access and relocating the Control Room to the Civic Administration Building.

Further investigation is underway to determine how the risk of failure due to earthquake can be reduced down to an acceptable level.

As an aside, because of the relocation of the Control Room, bulk water sales will temporarily no longer be available direct to members of the public although they will be permitted to commercial water carriers.

RECOMMENDATIONS

That the report be received.

IMPLICATIONS

1.	*Has this been provided for in the Long Term Plan/Annual Plan?* No
2.	*Is a budget amendment required?* Not for the investigatory works proposed, but most likely so for remedial strengthening works yet to be defined. These will be subject to a separate report and decision by Council.
3.	*Is this matter significant in terms of Council's Policy on Significance?* Potentially so when the cost of remedial works has been identified.
4.	*Implications in terms of other Council Strategic Documents or Council Policy?* None
5.	*Have the views of affected or interested persons been obtained and is any further public consultation required?* No

FINANCIAL IMPLICATIONS

Refer to 2 above.

THE WATER TOWER AND WATER WORKS CONTROL AT DOON STREET: EARTHQUAKE RISKS

Following the decision to close the Water Tower to public access as reported in last February's meeting, I advise that a report from the Beca Engineering Consultancy has now been received. As well as the Water Tower, the report also includes the building to the north of the Tower which contains the Water Works Control Room. Both structures were built in the 1880's.

The intent of the report was to carry out an assessment according to seismic engineering best practice to determine each structure's degree of compliance against the current national building standard (NBS). While not a comprehensive investigation, it is recognised as the appropriate first step and is termed an Initial Evaluation Procedure (IEP). The Water Tower has been assessed as 20% and the Control Building 15% of the NBS. As such, both are deemed "Earthquake Prone" structures. To gauge the relative risk of failure compared to buildings assessed at various degrees of compliance with the NBS, refer to the table below.

	% NBS	Grade	Relative Risk (Approximate)
	>100	A+	<1 times
	80 – 100	A	1 – 2 times
Earthquake Risk	67 – 80	B	2 – 5 times
	33 – 67	C	5 – 10 times
Earthquake Prone	20 – 33	D	10 – 25 times
	< 20	E	> 25 times

From this exercise it can be seen that both the Water Tower, even more so the Control Room Building, pose a significant risk of failure by an earthquake event. Currently that consequence of failure has been minimised in respect to the Tower by the decision to stop public access.

However, for the Control Room building, which is occupied by Council staff twenty four hours a day, every day, it is considered an unacceptable risk. Consequently, in the interest of staff welfare, the decision has been taken to relocate the Control Room from Doon Street and relocate it to the ground floor here in the Civic Administration Building in Esk Street. This will have been accomplished before the date of this meeting.

The next step will be to determine the means by which both structures can be strengthened to reduce the risk of failure by earthquake down to an acceptable level. Accordingly, Beca have been requested to provide a proposal as to how this might be achieved.

As an aside, and as a result of this decision, it is likely that the manner in which bulk water sales are made will alter in the immediate term. Historically, Council has made water available via dispensing points at the Water Tower site. This is mainly utilised by Water Carriers, Contractors and a small number of members of the public. For the present sales will continue as they have in the past although now, no sales will be permitted direct to the public as was the case in the past.

CONCLUSION

The Water Tower and building housing the Water Works Control Room, both pose an unacceptable risk to human life during an earthquake event. The decision taken in February to close the Water Tower to the public has decreased that risk but the continued occupation of the Control Room Building by Council staff is unacceptable, thus the Control Room has been relocated to the Civic Administration Building. I shall report to Council after a detailed assessment of how the risk of failure by earthquake can be reduced to acceptable levels for both the Water Tower and Control Room building.

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TO: **INFRASTRUCTURE AND SERVICES COMMITTEE**

MEETING DATE: **MONDAY 27 AUGUST 2012**

ACTION SHEET

	Item	Action Required	Date for Completion
1.	Sandy Point Management Plan		Draft – July / August 2012 Completed – December 2012
2.	Dog Runs	Additional areas required for off-leash dogs	December 2012
3.	Policy regarding disclosure of works tenders information	Review Policy	Draft – August 2012