

Appendices

Appendix A

Options for Cemetery Services in Waitakere City (Volume One: Stage 1 Master Plan Discussion Document), March 2009. By Synergine Group Limited, Auckland.

Appendix B

Waikumete Cemetery Expansion Report, July 2010. By Blue Barn Consulting Limited, Auckland.

Appendix C

Waikumete Cemetery Ecological Management Plan, February 2010. By Bioresearches Group Limited, Auckland.

Appendix D

Management of Historic Graves, August 2013. By SalmondReed Architects Limited, Auckland.

Appendix A

Options for Cemetery Services in Waitakere City (Volume One: Stage 1 Master Plan Discussion Document), March 2009. By Synergine Group Limited, Auckland.

The former Waitakere City Council commissioned this report as a consequence of the impending burial capacity at Waikumete Cemetery being reached by the year 2018.

The report cited the Burials and Cremations Act 1964 as requiring local authorities to establish and maintain appropriate facilities as to provide for the burial for persons dying within its district. The following methods have been investigated in this report to meet the current and future demand for burials and cremations within the district;

- The closure of Waikumete Cemetery when capacity runs out
- The capacity of Swanson Cemetery and feasibility of its use to augment or replace Waikumete in providing for burial needs in Waitakere City
- The availability of land elsewhere in the city for an additional cemetery or cemeteries
- To consider a variation in the reserve management plan and district plan provisions to enable additional development
- The implementation of alternative burial techniques
- The possibility of ceasing the activity



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Options for Cemetery Services in Waitakere City

VOLUME ONE: Stage 1 Master Plan Discussion Document



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Appendix B

Waikumete Cemetery Expansion Report, July 2010. By Blue Barn Consulting Limited, Auckland.

Based on the findings of the Synergine Group 2009 report, the former Waitakere City Council commissioned this high level and wide-ranging investigation of potential new burial development into a portion of the vegetated upper slope areas at Waikumete Cemetery. The Blue Barn Study also assessed the environmental effects associated with the proposed development in their report which projected future capacity extended to 2063.



Waikumete Cemetery Expansion Report

Prepared for

Waitakere City Council

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Executive Summary

that there is only sufficient capacity for approximately 10 years of operation using traditional burial Capacity forecasts undertaken as art of previous studies at Waikumete Cemetery have identified

vegetated land within the northern and western areas of the cemetery to enable future burial WCC is preparing an Alteration to the Designation of currently 33.41 ha of undeveloped and mostly burial and ash plots development. Of this 33.41 ha, 7.71 ha is proposed to be set aside as a Biodiversity Conservation 4.74 ha will remain as riparian buffer zones and up to 16.71 ha will be developed for new

Council's application process. environmental effects associated with the proposed development and produce a report to support Barn Consulting Ltd was commissioned to undertake a wide ranging assessment of

possibly complex in certain areas is considered achievable. The development of the proposed 16.71 ha of burial areas at Waikumete Cemetery, although

straight-forward to develop; 3.05 ha is considered moderately complex; and 2.55 ha considered very From a geotechnical perspective (the principal technical constraint), 11.11 ha is considered relatively

landscape restoration issues are considered relatively easy to resolve. Other issues such as traffic management, stormwater management, construction noise and

development areas. Using projected demand data, empirical burial type density inputs and market share assumptions the maximum capacity of the cemetery is predicted to be reached by the year Capacity modelling was undertaken to determine the possible burial yield for the proposed new

undertaken in five (5) stages of ten (10) years capacity for burial interments. Costs for developing Total development cost then over the 50 year period is estimated to be \$65M. and grave typology) could be required to fully develop the grave site areas ready for interment. the infrastructure for new areas at Waikumete together with landscape restoration planting are estimated at up to \$6M. Up to an additional \$59M (depending on the site-specific slope gradient Vegetation clearance and development of new infrastructure and burial plots is expected to be

technical and planning complexities associated with their development. Six (6) potential alternative cemetery sites were identified in this study but all have significant



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Waikumete Cemetery Expansion Report Appendices

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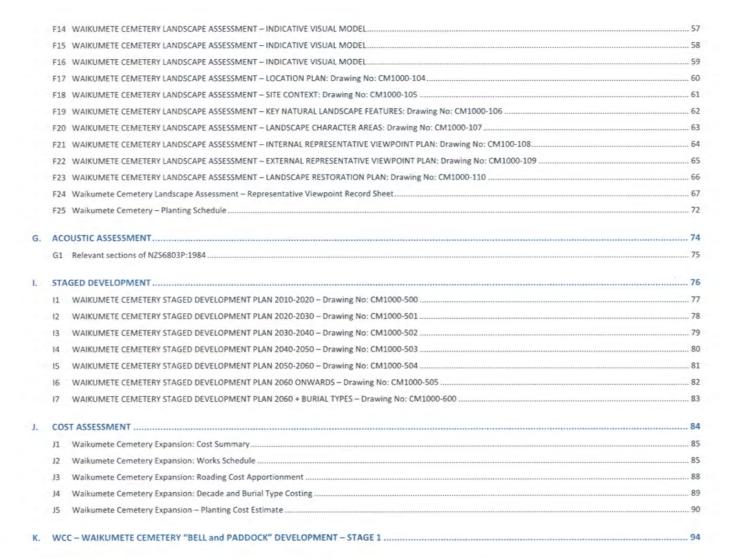
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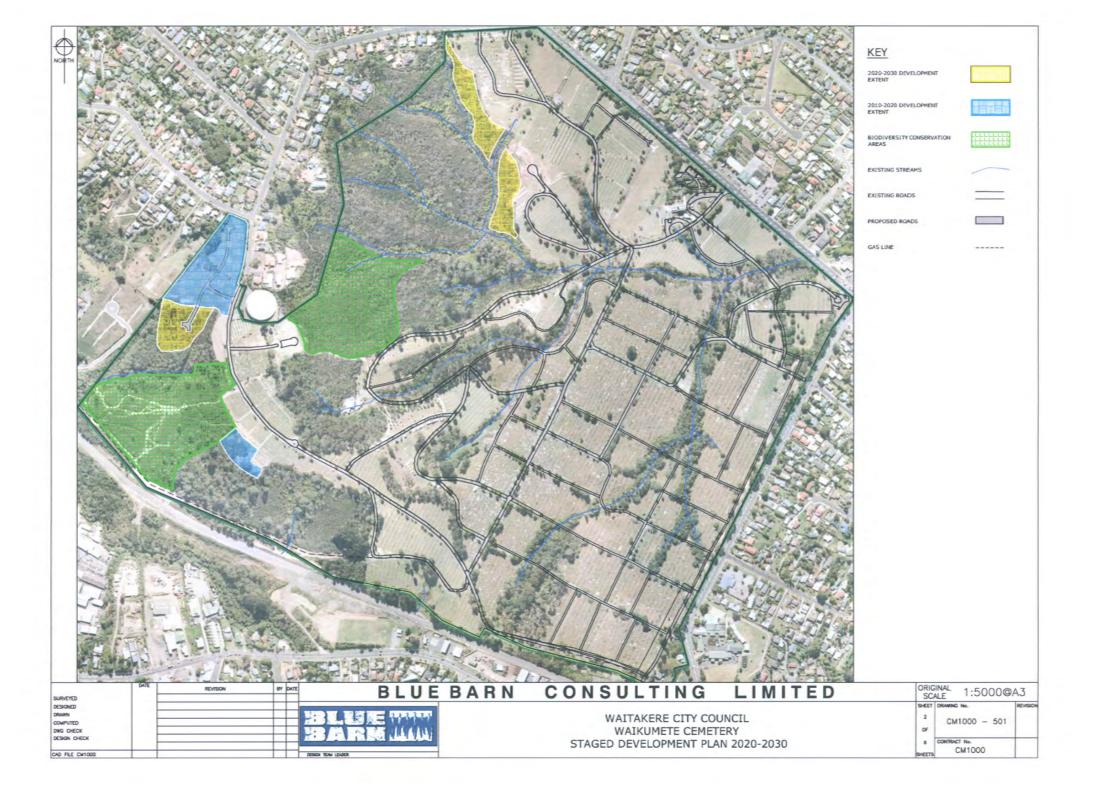


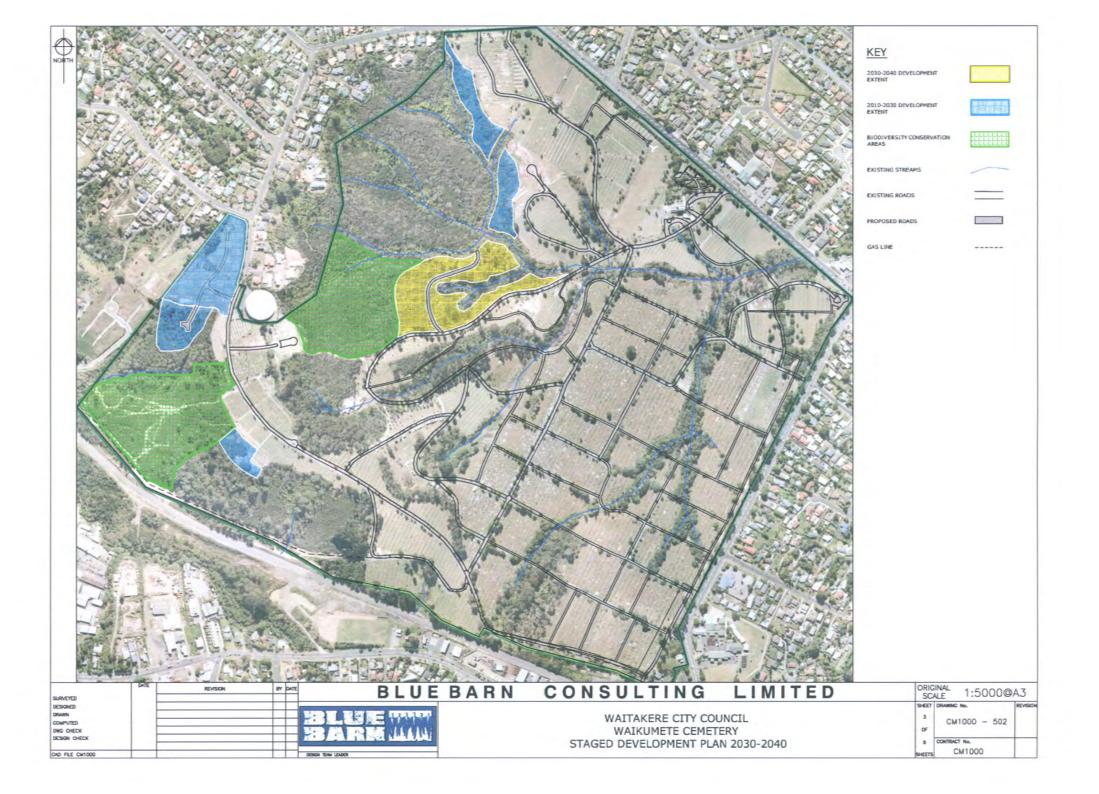


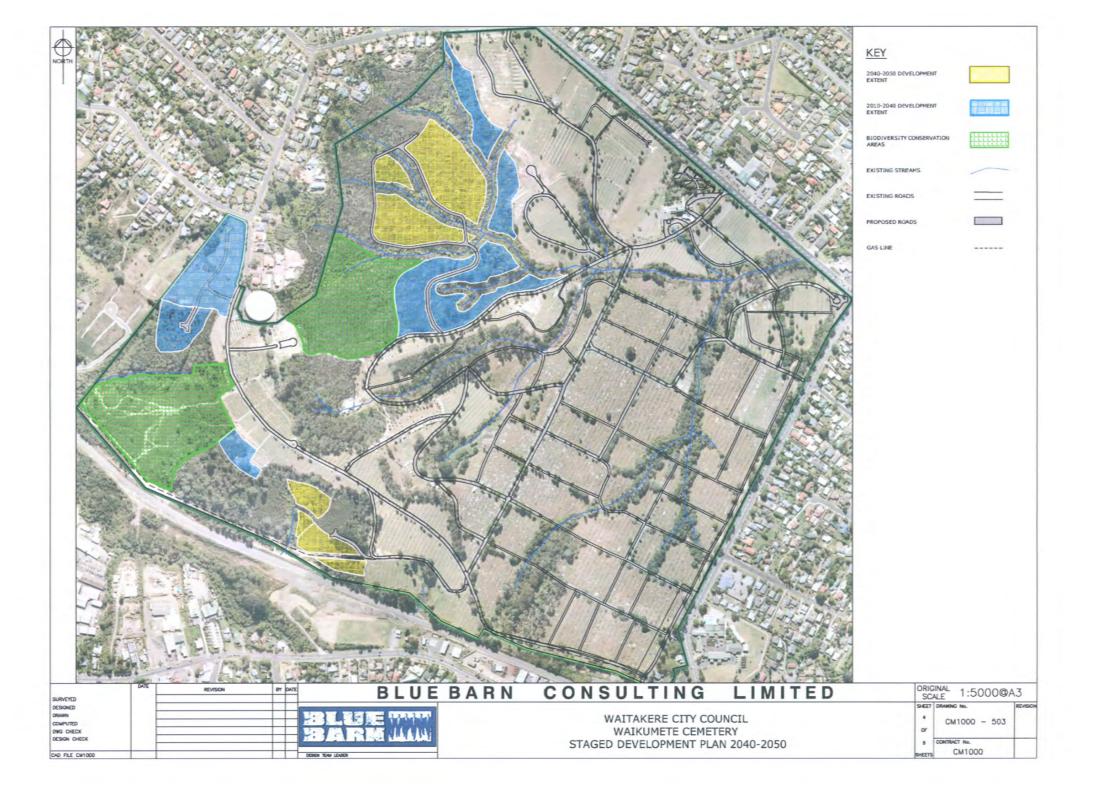


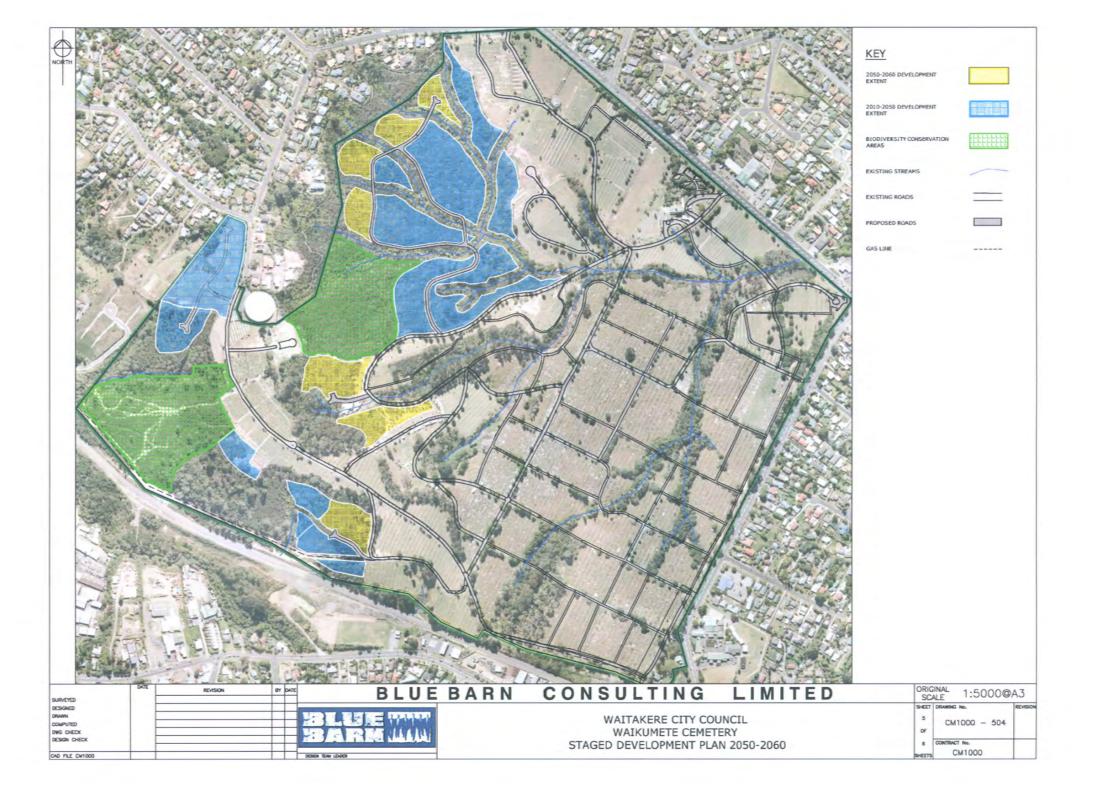


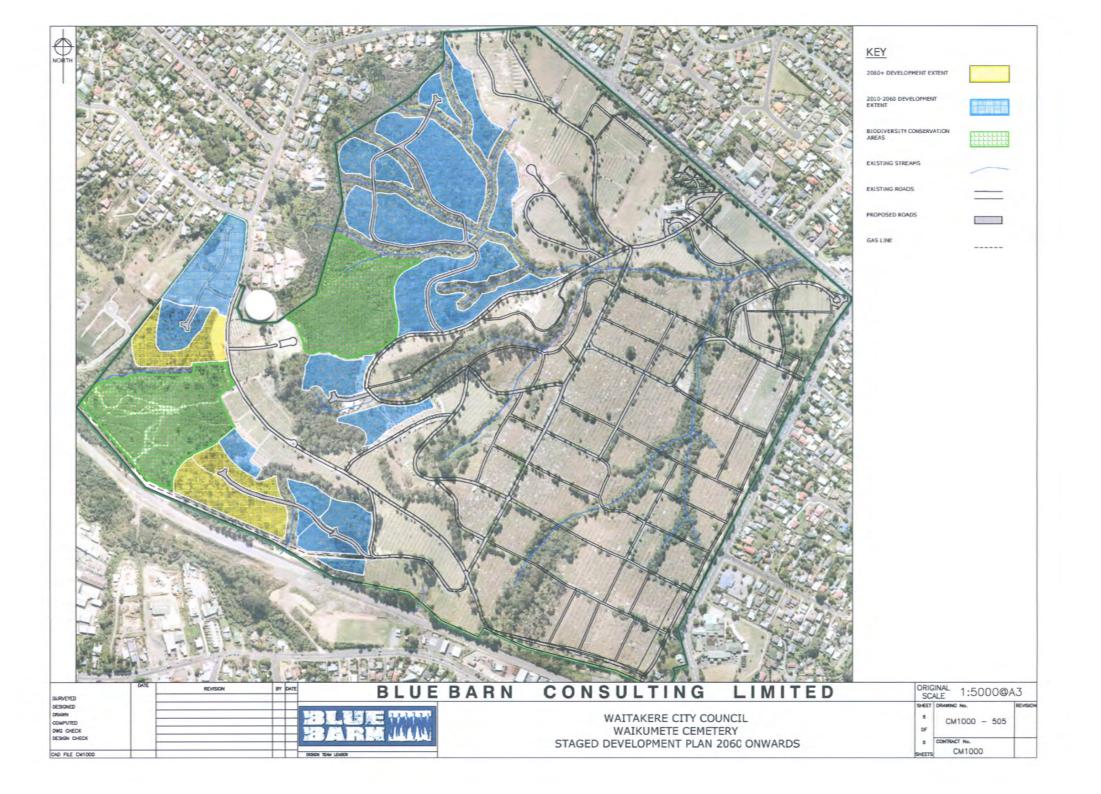












Appendix C

Waikumete Cemetery Ecological Management Plan, February 2010. By Bioresearches Group Limited, Auckland.

The plan was produced with the understanding that the proposed two significant ecological areas (SEA) would be zoned to receive the maximum level of protection. The reserve management plan has taken this lead and recommended that the two SEA's are set aside as scientific reserve under the provisions of the Reserves Act 1977.

The objective of the report is to set out a programme to preserve the diversity of native plants now present in what the authors define as the Southern Growth Area and Northern Growth Area, with an emphasis on keeping viable populations of those species that are now rare in the Auckland region.

WAITAKERE CITY COUNCIL

ECOLOGICAL MANAGEMENT PLAN WAIKUMETE CEMETERY



Waitakere City Council

Waikumete Cemetery Ecological Management Plan

FEBRUARY 2010

FOR: WAITAKERE CITY COUNCIL

BY: BIORESEARCHES GROUP LIMITED

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INTRODUCTION

surveys (Bioresearches, 2009). The three aspects arising were the need for management of (i) apparent remnant only riparian margins of streams and (iii) populations of both geckos and skinks with the former an two vegetation areas that typified gumland vegetation and local orchid populations, (ii) the addressed detailed vegetation descriptions, via The preparation of this Plan was the recommendation of the November 2009 report that aspects that will require active management as the proposed Cemetery expansion proceeds This document is an Ecological Management Plan that incorporates three main ecological vegetation transects, and additional

most recent survey. and summarised on Figure 1 that also shows the areas of habitat that were the focus of the conclusions and recommendations of Bioresearches 2009 are reproduced in full below

active management if that status is to be retained. Only 58.5% of the Northern Scrub western end of the Southern Scrub (Figure 1). Even that area will require immediate consists of non-degraded native vegetation but that percentage will decrease as a result of the development of pines, wattle, hakea and gorse "The only area of the cemetery property that contains typical gumland scrub is the

summary of the management recommendations arising from these surveys. those species are in the vicinity of Vegetation Transects SS 1 (Southern Scrub) nationally. of orchids. vegetation areas are shown as A and B; NS 3 (Northern Scrub). The key native species that typify the survey area are orchids and the best areas for Area A contains a Those areas are defined on Figure 1 that provides an overall liverwort that is probably in both contain rare plants and a high diversity 8 critical condition

Both Area A and Area B will require a buffer zone (minimum 20 metres) around parts each of their perimeters

further development of this part of the cemetery and should include aspects such as recommended that a Vegetation Management Plan is prepared that covers both Vegetation Management Plan should be accepted as a condition of any



should accompany any proposal to alter the planning status of this part of the fencing (especially Area A), weed control, animal pest control and public access. cemetery.

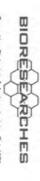
small and appears to be confined to one small area of vegetation. a few locations within it, including Area B. Copper skinks were most common within the Department of Conservation Reserve C on Figure 1) that is beyond the cemetery property, and were only recorded at Similarly the population of green geckos is

part of any proposal to alter its planning status. accepted as a condition of further development of this part of the cemetery and form enhancement and pest control. Management skink population in the copper skinks and green It is recommended that a Reptile Management Plan is prepared that focuses Plan should consider aspects such as salvage, relocation, Reserve adjoining geckos within the property but also considers the The Reptile Management Plan should the area of Northern Scrub. also be habitat copper on the

the same significance as the Vegetation and Reptile Plans. Similarly a Riparian Zone Management Plan should be produced and be accorded retained also recommended that riparian buffer zones (c.5 m width either side) are and managed along the main streams within the northern area of scrub.

All three Plans should be combined in an Ecological Management Plan"

this combined Plan will be a condition of any change in the status of these areas of the Cemetery under the Waitakere District Plan as well as any associated development consents. The following Management Plans are presented on the understanding that implementation of



Appendix D

Management of Historic Graves, August 2013. By Salmond Reed Architects Limited, Auckland.

This work is intended as a reference guide for cemetery staff, contractors and community volunteers engaged in the process of caring for and maintaining historic headstones and grave plot surrounds at Waikumete Cemetery.

MANAGEMENT OF HISTORIC GRAVES

protection little as possible and then only as much as is required for their physical preservation or Cemetery graves are intrinsically valuable and work to them should intervene as

and railings and these should be kept with the grave. removed should be recorded, catalogued and safely stored until they can be reinstated graves include all constructed features such as headstones, grave surfaces, Any original materials that are

necessary remove with copious amounts of water and a natural bristle brush. graves the patina of age associated with historic cemeteries and is best left alone. Moulds and lichens often appear as part of the normal weathering process, giving the

drained material such as stone aggregate. underside. If stones have to be laid down it is best to rest them on an inclined easily ground and For safety reasons headstones are sometimes laid directly on the grave itself or bare this hastens their deterioration due to constant dampness to

Grave materials

lime based plasters which are easily damaged by mowers and 'weedeaters' Grave surrounds, usually unreinforced plastered brick and rubble, often using the softer

Grave surfaces, plastered, sometimes tiled or covered with small marble chips

headstones should remained untouched. which is very soft and has weathered so that inscriptions are faint or unreadable, these Headstones and monuments are of various materials, a small number are sandstone

any remnant lettering, it is part of the heritage fabric of the headstone and cannot weathers. Inlaid lead lettering is common, it has often loosened and fallen out. Leave easily be replaced Victorian and Edwardian graves, invariably of marble, which stains easily and gradually

black granites, these are long lasting and the inscriptions do not erode easily The later post WWI graves are of the simpler chest type using the harder red, grey and

GUIDELINES FOR VOLUNTEER CLEANING

shoes and skin protection. Come prepared with garden fork/spade, rake, broom, plastic bags, scrubbing brush and buckets. If you come to work in a cemetery, be sensible. Containers of water may save a long walk. Please wear a hat, sunglasses, sensible

required for persistent weeds and self-seeding trees such as Acmena and Pohutukawa. glass bottles, broken vessels, weeds and rubbish in plastic bags to take away. Expose concrete footing and scrape soil off. Round Up or other weed killer may be

Does and Don'ts

Documentation (see attached sheet)

Document grave before work commences, either with a diagram, sketch or photograph with associated notes on its condition and the work you propose to do.

Weeding

planting Remove all woody plants and weeds which are not part of the original grave

site Remove grass, Blackberry, self-seeding Acmena and Pohutukawa from grave

Don't:

planting of the grave site Remove any tree or plant if you suspect that it many be part of the original

Don't:

Remove bulbs unless they have been positively identified as weedy watsonia.

Don't:

Risk damaging the grave site by removing vegetation with large well-established root systems, as these may have undermined its structure.

Cleaning

condition. Incorrect cleaning can be more damaging than leaving the grave in its current

Only clean dark or pink granite (these are usually smooth, polished stone with a "speckled" appearance) - scrub off lichen using scrubbing brush and water.

Don't:

Use metal scrapers as these will scratch the stone.

Don't:

Clean marble, concrete and sandstone graves until detailed guidelines are developed. If you are in doubt about what sort of stone your family grave is made of don't clean it until you know and can clean it appropriately.

Repairs

Don't:

Make irreversible repairs to graves or surrounds until detailed guidelines are developed. If you are in doubt about whether the repairs you propose are reversible or not seek advice.

Advice

appropriate or not Seek advice if you are in doubt about whether the work you propose is

An appropriate person could include:

- A member of the Auckland Monumental Masons Association
- A conservation professional
- The cemetery manager

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The Friends of Waikumete

Documentary Checklist

Name(s) of Deceased:

Family Name(s):

Individuals:

Date(s) of entombment:

year:

month:

Day:

Description: