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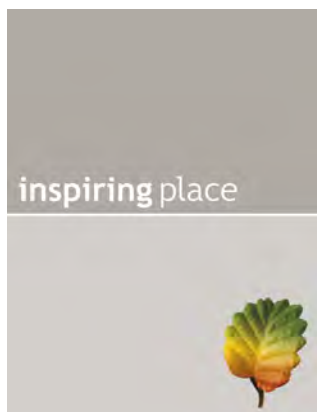


## Landscape & Garden Maintenance Advice



**GOVERNMENT HOUSE GROUNDS,  
NORFOLK ISLAND**

August 2017



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30.06.17 Preliminary draft

19.07.17 Draft for review

02.08.17 Final report

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Abbreviations and terms used herein:

**CMP – Conservation Management Plan  
Kingston and Arthurs Vale Heritage Area (KAVHA)  
SoR Statement of Requirement**

**NOTE:**

- The naming of features herein follows Cserhalmi and Partners whose ordering system, is based on precinct and subsequent alphabetical labelling (e.g. A1+ is for the Government House complex, A1A for Government House, etc.). Their ordering system corresponds with the work of Clive Lucas, Stapleton and Partners in their “Conservation Management Plan for KAVHA” from 1988. The labelling (A1A, etc.) for a feature is shown in the text the first time it is mentioned, otherwise the name has sufficed for reference. See Map 2.
- The Government House Reserve is that area declared under the *Commons and Public Reserves Act 1936*. The Reserve is 9.25 hectares in area and includes the Government House Complex (A1+) and the large paddock below it running down to the Serpentine.
- The ‘Garden’ (upper case) is used as an abbreviation for the Government House complex. The Government House complex includes Government House (A1A), its surrounds including the parklands and the stockyards/dairy area (see Map 3) and the multiple features within these areas (A1A-A1Z and A2-A12).
- The ‘formal garden’ is used to describe the area within the picket fence surround to Government House. The ‘rear entry’ denotes the east side of the house as accessed via A1E. Elsewhere, the words ‘garden’ or ‘gardens’ are used in the definitional sense of ornamental grounds used to grow shrubs, flowers, fruits or vegetables.
- The ‘house’ is used interchangeably with Government House. The ‘front of the house’ is used to mean the west side, formal entry facing the main historic site. The ‘rear entry’ is on the east and is the informal entry to the house as used on a day-to-day basis.
- Garden beds are named after Tropman and Tropman i.e. Beds 5 and 6 are those either side of the front entry steps to the house. See Map 4.
- Italicised words (apart from plant names) are as defined in the **Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance** 1999 published by Australia ICOMOS Incorporated, Burwood, Victoria.
- Unless specifically noted otherwise, the term ‘pines’ is used for brevity to represent Norfolk Island pines (*Araucaria heterophylla*) and white oaks for *Lagunaria patersonia*.
- Unless noted, all photos by the authors.

# Introduction

## THE GARDENS OF GOVERNMENT HOUSE

Norfolk Island lies some 1400 kilometres east of the coastline of mainland Australia. The island was first settled by East Polynesians but was unpopulated when it was eventually colonised by the English in 1788. The first British settlement was abandoned in 1814 but the English returned in 1825 to reestablish the penal colony which operated until 1855 (second settlement). Permanent civilian residence on the island commenced in 1856 when it was settled from Pitcairn Island by the descendents of the 'Bounty' mutineers (third settlement).

The remains of the convict settlement are protected within the Kingston and Arthurs Vale Historic Area, Norfolk Island (KAVHA) (Map 1). KAVHA covers 250 hectares of land with extant and archaeological evidence of all the eras of occupation of the site. Importantly, KAVHA is an integral component of Australia's World Heritage listed Convict Sites serial listing.

Within KAVHA, the Government House complex (A1+), including Government House (A1A) and its grounds are a significant cultural landscape (Map 2).

Government House (A1A) was constructed in 1828-9 during the island's second penal settlement period. The house was built over the foundations



**Map 1. Location of the Government House Reserve**

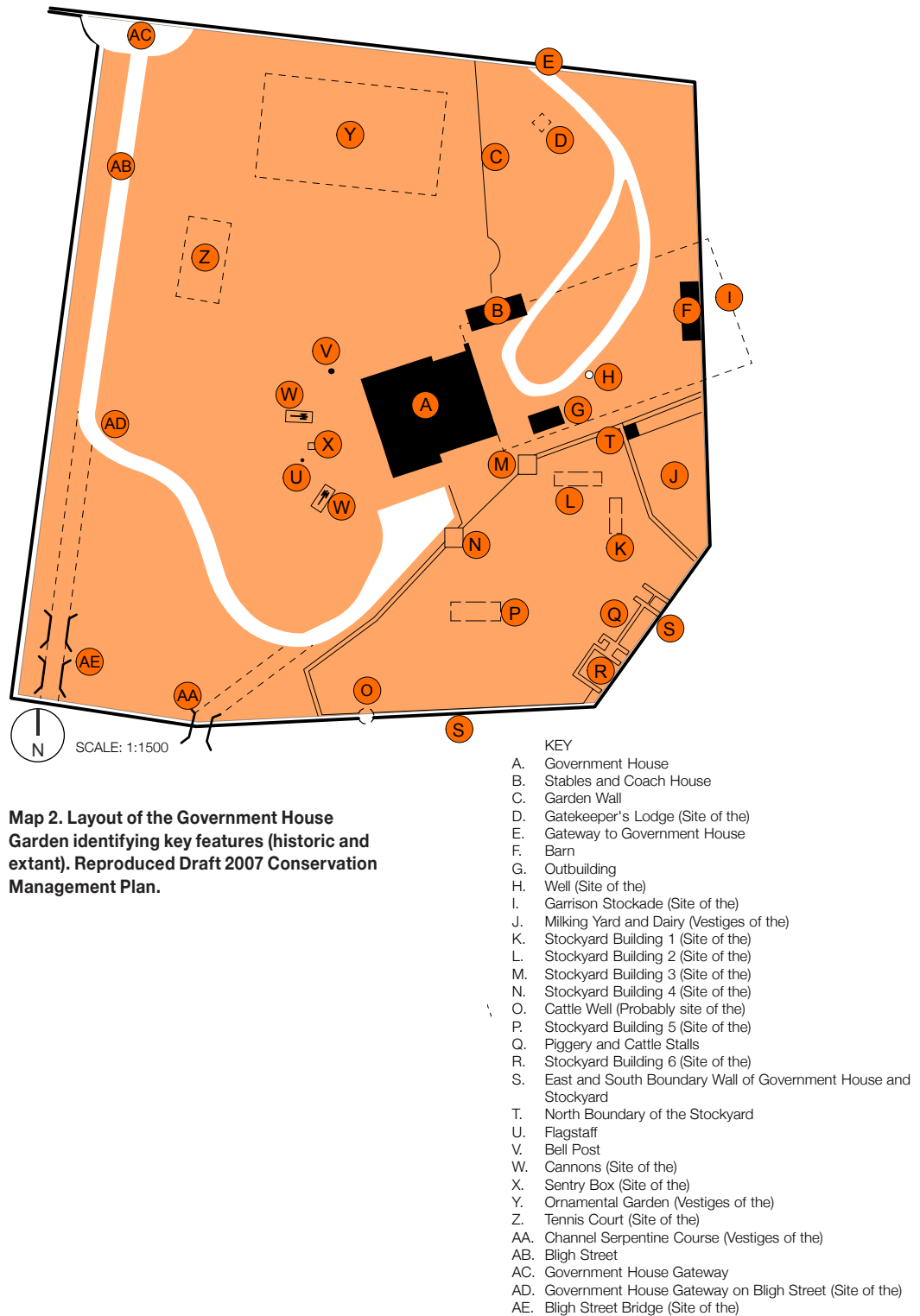
of the third Government House and soldier garrison buildings, built during the first penal settlement period from 1803 onwards. The site for Government House, atop a modified hilltop, was likely chosen because of its prominent position overlooking the settlement below – the site projecting the power of authority and creating a defensive position in the case of a rebellion by prisoners<sup>1</sup>.

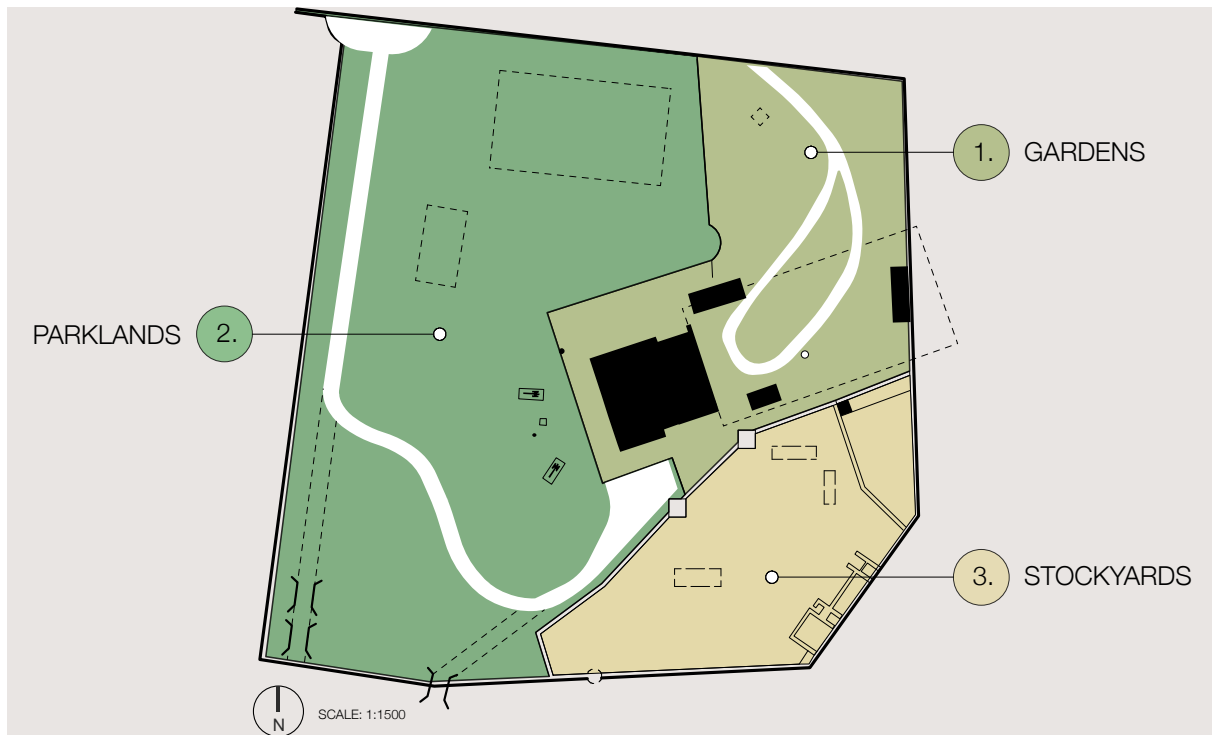
Today, the property, as reserved under the *Commons and Public Reserves Act 1936* is a working residence for the Island's Administrator, the venue for formal and community events and a key component of the KAVHA landscape.

Within the grounds there are three areas of management requiring differing intensities of care (Map 3). Of these, the 'Gardens' include ~2600 sq.m of fenced formal garden to the front of the house (the 'formal garden'), the rear entry and 2 internal courtyards and 2 light wells. The Gardens are abutted by the:

- 'parklands', an extensive area of trees and lawns; and
- 'stockyards', an area historically used for animal husbandry including the dairy (A1J) – the latter recently having been used as a vegetable garden but more lately abandoned.

<sup>1</sup> The history of Government House is documented in several reports including (but not limited to) Tropman and Tropman 1994. "Landscape Management and Conservation Plan for Kingston and Arthurs Vale Historic Area" on behalf of Australian Construction Services, Tropman and Tropman 1997. "Conservation Management Plan – Government House and Quality Row Residences Gardens Conservation" for the KAVHA Management Board and Otto Cserhalmi and Partners P/L 2002. "Kingston and Arthurs Vale Historic Site Conservation Management Plan" for the KAVHA Management Board. Additional background has been found in Kingston and Arthurs Vale Historic Area Conservation Management Plan 2008 for the KAVHA Management Board and Context, GML and Jean Rice 2016 "Kingston and Arthurs Vale Historic Area Heritage Management Plan" for the Australian Government.





**Map 3. Management areas**

There is no known documentary evidence of early plantings within the Gardens. There are two white oak (*Lagunaria patersonia*) within the formal garden of an 'older' nature that appear to be from the period of second settlement (see Section 4). None of the other plants therein are likely to date from that time.

The formal garden today (Photograph 1) reflects the tastes and preferences of more recent gardeners and/or the inhabitants of the house. This has resulted in there being in the order of 100 species of plants either in the ground or in pots in the formal garden, each with individual management requirements (see Section 7).

Elsewhere in the parklands, there are numerous Norfolk Island pines (*Araucaria heterophylla*) and white oak of some substantive size, the origin or date of planting most of which are unknown. Of the pines, two were planted on 06 March 1988 to commemorate the 200th anniversary of the settlement of the island.

There is little planting of any substance in the stockyards apart from a mature edible fig tree growing near the southeast boundary wall (A1S).





Photograph 1. The formal garden of Government House, 2017

# 1. The Project

Inspiring Place P/L Landscape Architects and Mark Fountain, Deputy Director of the Royal Tasmanian Botanical Gardens have been contracted by the Commonwealth Department of Infrastructure and Regional Development to provide conservation and maintenance advice for Government House Grounds, Norfolk Island.

The Statement of Requirement (SoR) (Attachment A) outlines the tasks to be performed. To paraphrase, the SoR calls for:

- a review of relevant documents;
- evaluation of the adequacy and appropriateness of the current grounds management regime with mention to be made of the potential reintroduction of working food gardens and the production of cut flowers;
- provision of recommendations on alternative management that respect the heritage values of the site and its contemporary uses and are visionary in scope yet achievable in a staged manner; and
- development of a management program to be implemented by grounds staff.

The area of study herein focuses on the Government House complex and the parklands surrounding it with some consideration given to the management of the stockyards and dairy. The greater Government House Reserve including the 'Serpentine' watercourse, and its management, have been excluded from the study. Specialist hydrological advice is required, to address the issues of water flow and flooding in that area that is outside the scope of the current work.

## 2. Approach

This report documents the findings and recommendations of a 5-day field trip to Norfolk Island by the study team that included taking instructions from the client, examination of the Garden within the larger setting of the KAVHA site, significant time spent in the formal garden documenting its current condition and discussions with the current contractors maintaining the site and past grounds keepers.

The extent of the issues raised by the site inspection and the need to concentrate on the management of the Garden's vegetation meant that only a cursory examination could be made of deeper heritage issues that might be addressed through primary or secondary research, oral history or archaeological investigations.

For instance, we have not been able to explore the;

- potential for reconstruction of assumed or known garden elements such as the roads and paths shown on Lugard's plan of the settlement of 1839<sup>2</sup> or the 'garden' illustrated on Hamilton's plan of settlement of 1850 (A1Y); or
- possibilities for the use of portions of the site for food or flower production.

Further, limited morphological documentation and no comparative analysis, significance assessment or policy development could be undertaken as would be required for a Conservation Management Plan in accordance with the principles established by JS Kerr<sup>3</sup>. The chronology of the Garden herein is based on review of existing documentation that has been photocopied or scanned from the originals. This has meant that reproductions are often unclear, making interpretation difficult.

Our work has been additionally constrained by the lack of a cultural landscape or thematic interpretation plan that would assist in determining the priorities for reconstruction or reuse of the Gardens.

Despite these constraints, our analysis and recommendations for the management of the Gardens have benefited from:

- review of Tropman and Tropman's asset inventory for the 1994 Landscape Management and Conservation Plan for the Kingston and Arthurs Vale Heritage Area (KAVHA) and their 1997 CMP for the landscapes of Government House and Quality Row<sup>4</sup>;
- our conversations with the gardeners for the site covering the last 30 years to the present day including David 'Dids' Evans, Di and Kel Adams, Jane Rutledge and the current Garden managers, Jamie and Des; and
- review of the **Conservation Management Plan and Inventory for Precinct A (Items A1+ to A1AA)** by Otto Cserhalmi and Partners, Architects, Sydney, September 2003<sup>5</sup>.

2 Lugard, H.W. "Plan of Settlement, Norfolk Island, January 1839", Archives of Tasmania, Lugard folder 122. Lugard's plan was updated in 1848 by Hamilton. See Hamilton, R. "Plan of Settlement with changes made after January 1848", Archives of Tasmania.

3 Kerr, J.S. 2004.B **The Sixth Edition Conservation Plan**, Ligare Pty Ltd, Riverwood, NSW.

4 Tropman and Tropman, 1994 and 1997. *ibid*.

5 Cserhalmi and Partners, 2003. *ibid*.

### 3. Government House – A Place of Exceptional Significance

KAVHA has heritage values of universal importance as a convict settlement spanning the era of transportation to Eastern Australia between 1788 and 1855. These values are recognised by the listing of KAVHA as a World Heritage Site as part of the World Heritage Listed Australian Convict Sites. The site has especial importance to Australians as indicated by its inclusion on the Australian National Heritage list, the Australian Commonwealth Heritage List, the Norfolk Island Heritage Register and by the National Trust of Australia.

These listings speak to the need to preserve KAVHA's picturesque setting, historic associations, part ruinous configuration and undeveloped nature, for which it has been listed.

Within KAVHA, Government House has exceptional heritage value owing to:

- its continuous use as a residence since its reconstruction in 1829 and the presence of vestiges of first penal settlement occupation of the site as an early Government House;
- for its associations with the governing of Norfolk Island and its role as an official residence and venue for official receptions; and
- its associations with early Commandants of note in the history of the penal colony.

Beyond these heritage values, Government House has high social value to the community of Norfolk Island as a venue for functions and events experienced by generations of residents since the end of transportation.

## 4. A Brief Chronology of the Development of the Garden

### 4.1 FORM OF THE GARDEN

Early plans show the evolution of the Government House precinct. The earliest known plan of the settlement (c1796) marked out parcels of land<sup>6</sup>, within which the current Government House is situated. These parcels bear no relation to the configuration of the Government House Reserve today.

Wakefield's plan from 1829 (Figure 1) shows Government House (A1A) in its current location and illustrates its relationship to the garrison barracks and stockade (A2+) and cultivated food gardens for the Soldiers and the Government. Access to the site is shown: from the south across the Serpentine (A3A) from Turtle Bay, from the present day entry at Quality Row along Bligh Street (A4A) but directly to the front of the house and from Quality Row at the rear entry (A1E) linking to the Stables.



**Figure 1. Wakefield's 1829 Plan of Settlement and Garrison Farm'. Source: AONSW Map 623 (NSW State Records)**

From 1832 onwards the Garrison was relocated and the stockade replaced with a working yard including barn (A1F), stables (A1B), dairy (A1J), stockyard and well (A1H). Alterations to the approaches to the house were also made. These changes in approach and some of the outbuildings are evident in Lugard's plan of 1839 (Figure 2) which shows the looping roads to either side of Government House from Bligh Street (A4) joining and forming an ovoid shaped turning feature symmetrical with the front of the house. Lugard's plan also indicates a more direct access (pedestrian?) from the corner of Bligh Street and Quality Row (through the gate at A4A).

6 William Neate Chapman's Plan of the Town of Sydney and South Side of Island. PRO MPG 1/1115[2] c. 1796

7 AONSW Map 723. NSW State Records

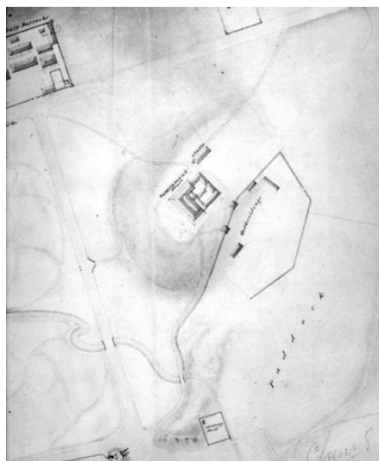


#### 4. A Brief Chronology of the Development of the Garden

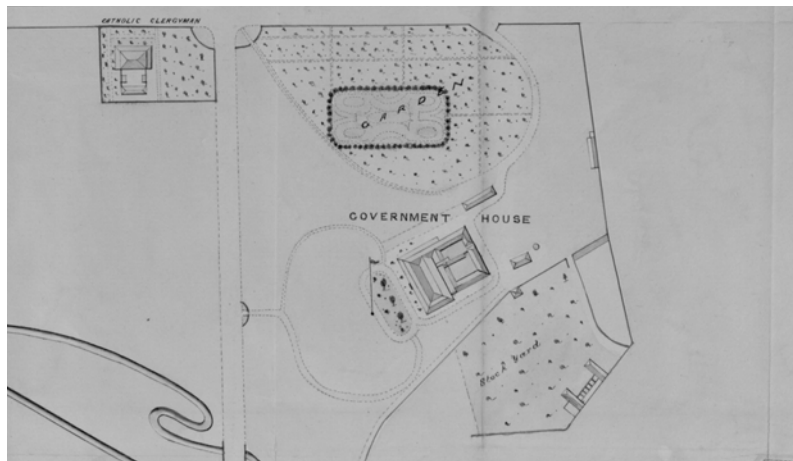
Hamilton updated and showed the situation of the Gardens in a more illustrative manner in 1850 (Figure 3) when he reported to the Controller General the changes to the settlement that had occurred since 1848. On his plan the multiple access points to the property are shown (A4A, A1E and A3A). The plan shows the stockyard and boundary walling in much the same configuration as it is today as well as the location of the small buildings there. The coach house and stables (A1B), barn (A1F) and the present-day Gardener's shed (A1G) are also seen.

The plan hints at plantings around the front verandah and within the ovoid-shaped turning area at the front of the house.

Hamilton's plan also shows a "garden" laid out in a grid on the ground below and north of Government House. Within this garden, there is a rectangular 'hedge' (?) with rounded corners that encloses a more curvaceous path network, symmetrically laid out and responding to the shape of the hedge.



**Figure 2. Extract from H.W. Lugard's 1839 Plan of Settlement<sup>8</sup>.**



**Figure 3. Hamilton's "Plan of Settlement with changes made after January 1848"<sup>9</sup>,**

Elements of the garden Hamilton illustrated were certainly executed. A 'hedge' appears clearly in a sketch from 1847 as an ovoid shape of pines. The hedge appears as a dense cluster of trees of indistinguishable form in later sketches, plans and photographs. The rectangular shape is most evident in a photo from 1915 (Photograph 2) and in aerial photos from the 1970s. Of the trees in the area today, 2-3 appear to be part of a rectilinear form that may have been the north side of the hedge. Nearby, a line of 'potholes' are found along what may have been the eastern boundary of the hedge, these suggest there may have been tree stumps there that have rotted away leaving a void.

8 A/Tas PWD 266/1940 HW Lugard, Lt. Royal Engineer, January 1839

9 RG Hamilton, PRO MPG 1/677 Enclosure in Comptroller General's report dated 30 June 1850, extracted from the Colonial Office Records, Dispatches: Report of the Comptroller-General of Convicts 1850.

#### 4. A Brief Chronology of the Development of the Garden

The form and content of the garden within the hedge is seen in only one undated photograph (Photograph 3). In the photo, the hedge is now a stand of advanced pines. The ground plane appears to be grass. Within the grassed space there appears to be a sunken rectangular shape around the edge of which people are seated. There is no evidence of the path network drawn by Hamilton, which is not to say that it had not been built, only that at the time of the photo it was no longer evident.

The sunken area may be the “croquet ground under the trees” referred to by Dr Patton the Administrator c1924.



**Photograph 2 (above). Hedge of pines around the ‘ornamental garden’<sup>10</sup>, 1915. Note the absence of pines along Quality Row.**

**Photograph 3 (left). Ceremony in the pine hedge<sup>11</sup>.**

By 1910, the Bligh Street approach was in disuse owing to flooding where it crossed the Serpentine and to sand drift. The back drive became the main entrance at that time. In the 1980s the Bligh Street drive was reinstated up the hill where a small car park was formed outside the gate and path leading to the front entry of the house. A slight topographic expression of the road surface and two small bridges are evidence of the former alignment of Bligh Street.

The looped drive at the rear of the house came after Hamilton’s plan and certainly later than 1925 but before 1935. Two photos show its evolution (Photographs 4 and 5). In the first from c1924, the looped road is yet to be developed. In the second from a later date (c1930), the looped road has been constructed along with a circular planting bed at its apex. The edging is still in place today, but the planting is not. Five pines planted in the 1980s now dominate this space.

<sup>10</sup> Mitchell Library Berkelman Collection.

<sup>11</sup> Mitchell Library Berkelman Collection, ML ON 62, Image 225

## 4. A Brief Chronology of the Development of the Garden



**Photographs 4 and 5. Left. Rear entry (c1924)<sup>12</sup>. Right. Edging with plants c1930s<sup>13</sup>.**

What is also apparent in these photos is the absence of pines to the northeast and east of the house until at least the 1930s. In the c1935 photo above, the three pines to the east of the rear entry are seen to be juveniles, while those on the right are much older. Otherwise there are no pines in the rear yard or along the eastern boundary. Whereas the 4 mature pines at the intersection of Bligh Street and Quality Row and the avenue of pines along Quality Row between Bligh Street and the rear entry appear in photos as early as 1856. However, the latter may have been replaced in the time since as they are not seen near the entry gate in the 1935 photo and in an aerial photo from the 1970s only a few are evident.

The tennis court dates from 1924 and was in use until sometime prior to WWII when it was removed.

### 4.2 GARDEN 'FURNITURE'

The 2007 CMP plan shows the location of a number of elements that are no longer present including cannon (A1W), a bell post (A1V), a well (A1H), a gatekeeper's lodge (A1D), stockyard buildings (A1K-A1P and A1R), sentry box. Vestiges of the ornamental garden (A1Y), piggery and cattle stalls (A1Q) and dairy (A1J) remain.

Various boundary and internal walls are a powerful presence in the landscape (A1E, A1S, A1T) the Government House Gateway (A4A) at Bligh Street. The ground formation for the tennis court (A1Z) is evident. Bligh Street has been retained as the entry road to the site and the walls of historic bridges further along its alignment are still seen.

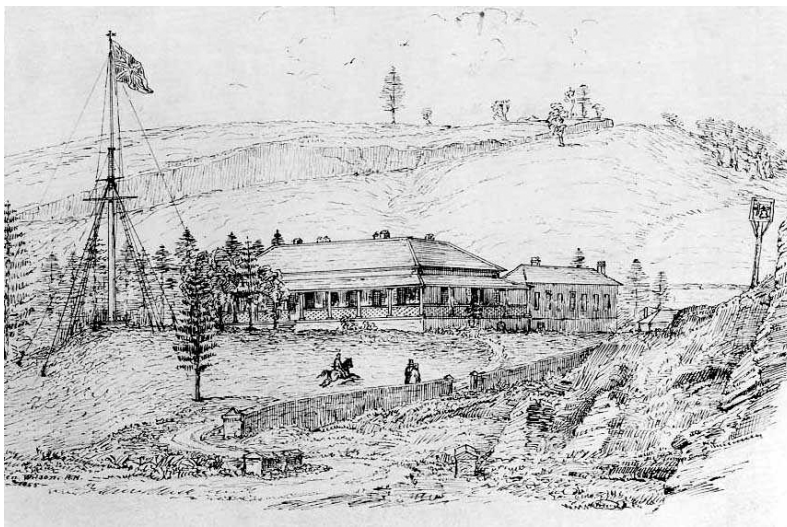
<sup>12</sup> c1924 Bounty Folk Museum.

<sup>13</sup> . Artist and date unknown, KAVHA Restoration Office

#### 4. A Brief Chronology of the Development of the Garden

Within the formal garden, there are no built elements from the second settlement apart from Government House itself as a backdrop to the scene. A flagpole is located on the site of the historic flagstaff on axis with the front of the house (Figure 4). The flagpole is the mast of a Norwegian sailing vessel wrecked on the island in 1935.

A pair of quite established white oaks in the patio appear in a photo from 1896, suggesting the trees there today are in the order of 150 years old.



**Figure 4. The original flagstaff in a drawing from 1855. Note the absence of the picket fence and the apparent presence of a Norfolk Island pine on what is now the garden terrace at the front of the residence)<sup>14</sup>.**

A rough picket fence appears in photos from the 1880s. In some views, the alignment of the fence approximates its current location (views from Bligh Street) while from others, it is lower down the hill (Quality Row side). Around the turn of the century, the more refined picket fence we see today was established. A photo from 1932 (Photograph 6) shows the fence in its current location; its construction is assumed to be like that which exists today.

In the 1980s, paths and a patio were constructed using concrete pavers and garden lighting and concrete edging to the beds were installed.



**Photograph 6 (right). Picket fence, 1932. Note this same photo shows the tennis court in an apparent state of development)<sup>15</sup>.**

<sup>14</sup> WL Crowther Library, State Library of Tasmania

<sup>15</sup> . Mitchell Library, Percy Marks Collection.



## 4. A Brief Chronology of the Development of the Garden

### 4.3 GARDEN PLANTINGS

Available information provides little background to the specifics on what species of plants were historically used to create the Garden.

Island residents and members of the Norfolk Island Garden Club<sup>16</sup> provide lists of plant materials on Norfolk Island based on their research of correspondence from First Fleet through to 1920. Their lists from first settlement are exclusively edible plants<sup>17</sup>. Their records from the second settlement include additional edible plants and English oaks (*Quercus robur*).

The list of plants from third settlement (dated 1860-1920) includes a far wider selection of ornamental plants and specifically identifies plants introduced from Pitcairn Island. These include ti plant (*Cordyline* spp.) and wapoo beans. Their list also included the Phillip Island hibiscus (*Hibiscus insularis*). All of these plants are found in the garden today, albeit more latterly planted than dating from the time of introduction. Other plants listed from this period that are important in the Garden today include:

- pohutakawa (*Metrosideros excelsa*);
- acalphi (*Acalypha wilkesiana*);
- bird-of-paradise (*Strelitzia nicolai*);
- *Duranta* (*Duranta erecta*);
- Cape honeysuckle (*Tecoma capensis*);
- crotons (*Codiaeum variegatum*); and
- hibiscus (*Hibiscus sinensis*).

Tropman and Tropman 1994 include a “List of Plants in the Colony of New South Wales that are not Indigenous” from an enclosure with correspondence between King and Hobart in 1808. The bulk of the listed plants are edible varieties of vegetables, fruits and “sweet and pot herbs”. “pines” and “cava” from Norfolk Island are also listed.

Photos post 1900 reveal the evolution of the Garden to its current day form. A photo from c1900 (Photograph 7) shows sparse foundation plantings of strap-leaved plants, ~900 mm high in front of ~2000 mm high shrubs as intermittent foundation plantings. By the c1920s, the strap-leaved plants disappear and a more continuous foundation planting appears (Photo 8).

As late as 1925 the perimeter beds had not been developed as seen in a photo from 1925 looking north to Quality Row (Photograph 9).

By the 1950s, the foundation planting on the front of the house was well developed showing plants of contrasting heights as a backdrop and edging plants. In this photo, the southeast foundation is all but bare.

Photos of the kitchen courtyard from the 1950s (Photograph 10) shows a patch of grass and paving with narrow foundation planting on the north wall and some path edging plants. Sometime since, the grass and paving have been replaced with two garden beds either side of the path and the remainder of the courtyard has been paved.



**Photograph 7 (above). View to Government House from Bligh Street/Quality Row, 1896<sup>18</sup>.**



**Photograph 8 (above) View to Government House from northwest, 1918<sup>19</sup>.**

<sup>16</sup> “Plant material list on Norfolk Island from various sources” prepared by Norma Summerscales, Norfolk Island Garden Club and Beryl and Owen Evans, Residents. Undated as found in Tropman and Tropman, 1997. *ibid*.

<sup>17</sup> The one exception is Dutchman’s pipe creeper, *Astrolochia* spp., an invasive weed native to South America and the Caribbean, likely to have been inadvertently introduced rather than purposefully brought to the island.

<sup>18</sup> As found in Cserhalmi 2002 – ML GPOI still 08595.

<sup>19</sup> Royal Historical Society of Victoria, Everard Studley9Miller Collection. GN/SMC 370.1



#### 4. A Brief Chronology of the Development of the Garden



**Photograph 9 (above). View northwest to Quality Row<sup>20</sup>.**



**Photograph 10 (above). Northern courtyard looking west, 1950<sup>21</sup>.**

A photo c1970 (Photograph 11) shows foundation plantings along the front verandah including a large hibiscus and cordylines at the rear and bedding plants in front. The same photo also shows bedding plants (geraniums?) in a large bed within the lawn area. This bed has since been removed and replaced with a much smaller circular one.

Within the Garden, several trees have heritage significance for their age or social importance. These include:

- the two commemorative pines planted by Sir Ninian Stephen on the Government house side of the entry drive.
- a very large pine further along the drive on its opposite side that is seen in various historic views;
- the four large pines along Bligh Street at its intersection with Quality Row;
- the two large white oaks in the formal garden;
- two-three pines thought to be part of a planting shown around the 'garden' illustrated on Hamilton's plan of settlement.

The double row of pines along the southeast boundary between the rear yard and the stockyard play an important role in sheltering the house from the prevailing winds, albeit the row closest the boundary wall (A1T) is causing damage to it (see Section 7.1.1).



**Photograph 11 (above). The front verandah, 1970.**

<sup>20</sup> Mitchell Library Berkelman Collection, ML ON62, Image 160

<sup>21</sup> Lucas. NLA in Lucas Report, View 7, Sheet No. 4. NLA Small Pictures Collection

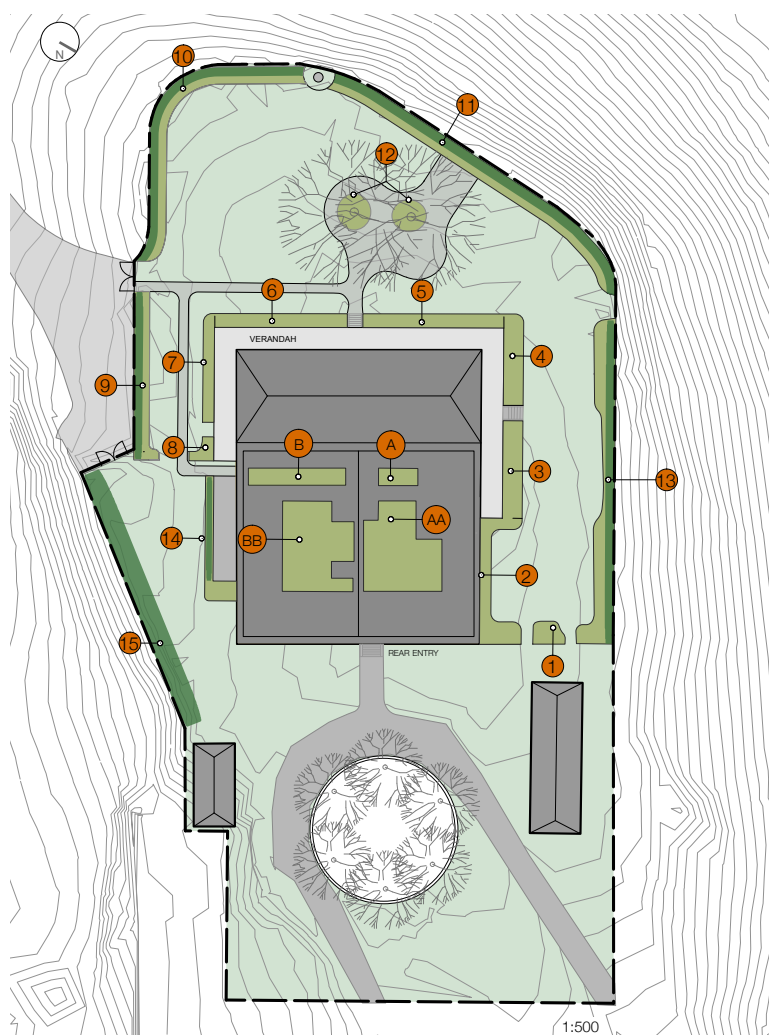
## 4. A Brief Chronology of the Development of the Garden

### 4.4 THE GARDEN TODAY

The surrounds to Government House today, present as a picturesque parkland setting in which large swathes of lawn are interspersed with avenues of pines, dense clusters of trees (pines and white oaks) and/or stand-alone specimens of those species.

Day-to-day access is from the rear of the house from Quality Row with the front used by the public and guests. Parking occurs on the roadway, on the lawns under the trees or at the front of the Stables/Coach House. The front roadway along Bligh Street has limited use on formal occasions.

Sometime in the 1980s, the formal was likely 'completed' in its current form of foundation plantings to the northern, western and southern side of the house and small planting beds and pot plants around the patio. Beds were edged with concrete and the current concrete paver paths and patio and lighting were in place.



Garden layout at 2017 (Notation generally follows Tropman and Tropman 1994 with later features added).

## 4. A Brief Chronology of the Development of the Garden

Within the formal garden, however, there have been differing approaches to plant selection and planting motifs. In the 1990s for instance, the beds were dominated by annuals of a wide variety of colours that created a 'cottage feel' (Photographs 12 and 13).



**Photographs 12 and 13 (left and above).**  
Views of the formal garden, c1990s<sup>22</sup>.

The lack of continuity in thematic direction for the formal garden has resulted in *ad hoc* decision making by various gardeners and residents of the house as to which species should be planted.

The current and most recent schema of plantings is sub-tropical in feel (Photograph 13) derived from the efforts of the immediate past gardener who built upon from established framework plantings (such as the hedges) to create the garden as it is today. The sub-tropical feel has been created through use of species with:

- sub-tropical origins, including plants from South America, Africa and elsewhere in Australia;
- strong contrasting colours (e.g. red and green leaved puhutakawa hedges);
- variegated leaves (e.g. *Coleus* spp. and *Tradescantia* spp.); and
- textural leaf forms (e.g. the large leaves of *Meryta* and the strap leaves of the *Cordyline* spp.).

Despite the strength of the current scheme, the lack of continuity in thematic direction over many years has resulted in the plethora of species seen in the beds today (over 100 in total and up to 45 in bed 13), inelegant planting arrangements in some places, overcrowding in many areas and the spread of some invasive species ((e.g. mother-of-thousands (*Kalanchoe daigremontiana*) and little ruby (*Alternanthera dentata*)).

It is the need to address this situation that has led to the current study.



**Photograph 13. The formal garden,**  
2017.

22 Private collection: Di and Kel Adams

## 5. A Mission to Manage with Care

Central to the protection of the Government House gardens' multiple values is a mission to:

**CARE FOR GOVERNMENT HOUSE, ITS SURROUNDS AND ITS GARDENS IN A MANNER THAT BEFITS ITS IMPORTANCE AS A SYMBOLIC AND HISTORIC LANDMARK IN THE KAVHA SITE AND AS A PLACE OF GREAT SOCIAL SIGNIFICANCE TO NORFOLK ISLANDERS.**

Critical to this mission, and of primary concern to the aims for the current study, are the objectives to:

- retain and care for evidence (extant and archaeological) of early settlement including site configuration, built features in the landscape and vegetation of significant age;
- maintain an appropriate setting for the house in the field of view from the overall site, from points of interest and along its approaches;
- care for the Garden as a significant place in the contemporary social life of the Norfolk Island community;
- manage the property as an official residence and venue for official functions; and
- establish a management regime that is within the capacity of contracted parties to achieve a high standard of presentation and horticultural care within the budget provided to them for the works.

These objectives strongly align with conservation policies arising in various CMPs for the site Government House Reserve. The policies in Cserhalmi and Partners<sup>24</sup> for Government House, for instance, state the need to:

- retain evidence of the early/original configuration of Government House, the service areas, the farmyard and the stockyard;
- continue to utilise the house as the official residence for the Governor or Administrator or equivalent official;
- continue to maintain the landscaped grounds of Government House;
- continue to use the place for social functions and community events (including the associated grounds);
- restore the important westward vista to Flagstaff Hill through the removal of the intrusive Bligh Street Norfolk Island pine plantings<sup>25</sup>.

And for the Government House Garden (A1AA), they add more specific policies to:

- maintain an appropriate garden setting for the house, including approaches and flower gardens;
- ensure future planting of Norfolk Island pines within the grounds do not obscure vistas to and from Government House.

<sup>24</sup> Cserhalmi and Partners 2003. *ibid.*

<sup>25</sup> After Tropman and Tropman, 1994. *ibid.*

## 6. Principles for Management

Achievement of these objectives will be attained provided 4 key principles are addressed by decision makers, including:

### **1. CONSERVATION OF HERITAGE SIGNIFICANCE AND ITS EVIDENCE (EXTANT OR ARCHAEOLOGICAL) HAS PRIMACY OVER ALL OTHER MATTERS.**

KAVHA and the Government Gardens are a tangible expression of Australian identity and experience – irreplaceable and precious assets for present and future generations. Care must be taken to ensure the cultural significance of the setting of the place is conserved, deterioration of fabric is retarded, and inappropriate accretions are removed.

*Reconstruction or restoration* of known features should be permitted provided there is sufficient evidence and the financial resources to support change and its ongoing management. A cautious approach should be taken to *adaptation*.

### **2. MANAGEMENT OF THE GARDEN MUST BE SUSTAINABLE.**

Gardens are a living medium that require continuity, time and attention to detail if they are to mature. The Garden should reflect a thematic approach and conscious design suited to the sub-tropical climate and physical qualities of the place (climate and soils). At the same time, the design should take account of the work of preceding caretakers and the significance of the historic setting. Where change is to occur, it should be part of a conscious design and management approach that evolves rather than being a complete refashioning of the Garden's character.

### **3. THE GARDEN IS A PLACE TO BE EXPERIENCED.**

The ease of access and the long standing and frequent use of the Garden by the Administrator for official engagement and for community social life mean that it has great significance in the contemporary life of Norfolk Island. In support of this, the Garden should be cared for as a place of visual delight with spaces of varying scale, enclosure and outlook to support a diversity of activity, groups of differing sizes and/or individual contemplation.

Use of the grounds and gardens should be compatible with the character of the place as a historic and formal setting.

### **4. THE GARDEN MUST BE MANAGED WITHIN THE CAPACITY AND AVAILABLE RESOURCES OF THE RESPONSIBLE AGENCY, ITS EMPLOYEES AND CONTRACTORS.**

High standards of horticulture and gardening practice are essential in a setting of such significance. Strategies for management must take account of the numbers of staff and the financial resources available to maintain the Gardens.



## 7. Issues

### 7.1 PRIMACY OF HERITAGE CONSERVATION

#### 7.1.1 THE NEED TO CONSERVE THE CULTURAL HERITAGE SIGNIFICANCE OF THE GARDEN.

The **Burra Charter** is the accepted code of practice for the conservation of places of conservation significance within Australia. The **Charter** provides guidance for the conservation and management of sites of cultural significance and defines the activities required to protect the values of a place.

Central to the protection of a place is the *preservation* of heritage fabric.

In the Garden, concerns arise where the roots of pines are encroaching on the convict built walls causing uplift and fracturing along Quality Row (Photograph 14), the eastern boundary adjacent to the golf course and between the rear yard and the stockyards. Where this is happening, there is a strong case for removal of trees to retard further deterioration of the walls.

There is also the need for heightened vigilance where garden escapes are colonising building fabric as is seen at the entry to the cellar (Photograph 15) and on some of the steps and in the foundations of the verandah.



Photograph 14 (above). Garden wall damage along Quality Row caused by roots of neighbouring pines.



Photograph 15 (above). Plants colonising the cellar entry.

### 7.1.2 THE NEED TO ESTABLISH A POINT OF REFERENCE FOR THE CONSERVATION OF THE GARDEN

KAVHA is listed for its important role in demonstrating the characteristics of a penal settlement tied to the transportation of convicts to Australia in the late 18th and early 19th Centuries. There is significant extant evidence of the second settlement phase as a penal colony starting from 1825.

While KAVHA shows evidence of all periods of occupation - Polynesian, first and second British settlement and third settlement by the Pitcairners, it is the second settlement period, that is the represented by Government House and the layout of its grounds.

A focus on the second settlement role of Government House and its grounds suggests that elements of that period could also be considered for *restoration* or *reconstruction* provided enough evidence were available to support these activities. Elements that may be considered for *restoration* or *reconstruction* include the 'ornamental garden', roads and/or paths shown on Lugard's and/or Hamilton's plans. However, archaeological investigations are required prior to any works being undertaken to determine the extent to which these features were developed, their location and the construction methods used.

Amongst other things, a focus on the role of Government House in the life of the penal colony suggests that at the broad scale of the KAVHA site, Government House should be a dominant presence in the landscape (see Section 7.1.3).

### 7.1.3 THE NEED TO UNDERSTAND THE GARDEN IN THE WIDER KAVHA SETTING.

Established in 1829, Government House was dominantly and strategically positioned on a levelled natural hillock, "an eminence" in full view of all the main features in the Kingston and Arthurs Vale Historic Area (KAVHA).

Since that time, the prominence of the site has been compromised by inappropriately located pine plantings and/or through the growth of self-sown trees. Many of the pines screening views to Government House are of 20th Century origin. In numerous instances, the pines have a cohort of self-sown white oaks under them that add to the screening effect. Together, they obscure the cultural significance of the site.

A photo from 1924 (Photograph 16), for instance, shows no pines along the northeast boundary with the golf course and three young pines on northeast boundary along Quality Row emerging into the view. Today these same 3 pines obliterate the view to Government House.

Conservation of the Garden requires the management of its setting and visual relationships to the wider KAVHA property. From a heritage landscape management and visitor experience standpoint, a priority should be for Government House to have greater prominence as was originally intended. Amongst the important views to be revealed are those from:



**Photograph 16 (above). 1924 from the southeast along Quality Row<sup>26</sup>.**

26 Hand-coloured lantern slide. Henry Spencer Salt c1935 NLA Album 931, Slide 160.

## 7. Issues

- Flagstaff Hill;
- the Pier, Pier Street and Bounty Street;
- the entry to the Government House reserve at the corner of Quality Row and Bligh Street and along the further alignment of Bligh Street through to Bay Street; and
- Rooty Hill Road looking down and across Quality Row.

Selective removal of a substantial number of pines is required to reveal these views and re-establish Government House as a significant visual focal point within KAVHA.

Clusters of trees that significantly impede views to and from Government House include:

- the long row of pines along Bligh Street (A4) (remembering that the first four starting at Quality Row are of earlier origin and should be retained) (Photograph 17);
- the five mid-sized pines on the lower side of the drive to Government House (A4B) (Photograph 18);
- the plantation of pines on the east face of Flagstaff Hill on alignment with the flagstaff in the formal garden;
- singular trees and the wild white oaks under in the paddock below Government House in the line of site from the gateway at Bligh Street (A4A); and
- trees in the turning circle at the rear of the house (anecdotally planted to be used as Christmas trees and now grown well past their potential for use for that purpose).



**Photograph 17 (left).** The impact of the line of pines along Bligh Street is evident from the porch of the Catholic Clergyman's residence. **Photograph 18 (right)** View from the low ground of the Serpentine .

Trees that are impacting on or have the potential impact on heritage fabric include:

- the outside row of 8 trees along the north boundary of the Stockyard (A1T) and the tree on the inside row closest to the present-day gardener's shed (retaining the inside row will aid in buffering the site and serve as a setting for nearby heritage buildings); and
- the row of 11 pines and 5 self-seeded white oaks along the boundary wall to Quality Row (between A4A and A1E).

Removal of the above listed trees will aid interpretation of the place with limited heritage impact. Nonetheless, the Burra Charter recommends a cautious approach to change. A staged removal is therefore recommended, commencing with trees that are damaging fabric (see Section 7.1.1) or of poor health and pines and white oaks that are likely to have been self-sown.

## 7.2 SUSTAINABLE MANAGEMENT

### 7.2.1 THE NEED TO ESTABLISH A CONCEPT/MOTIF FOR PLANTING.

Overall, the parklands present well and create an appropriate setting for a building with the gravity of Government House. The lawns should continue to be maintained in a well-groomed condition using available machinery<sup>27</sup>, accounting for areas that may be left in a rougher state for management or interpretation purposes.

The judicious removal of pines and white oaks as discussed in Section 7.3.1 will further enhance the experience of the house in the setting. The need to appropriately conserve and present the place should outweigh the desire by some for the retention of more recently introduced trees that detract from the view or are causing damage to important heritage fabric.

The suggestion that the lawns be 'striped' as might occur on a sports field, while well intentioned, is not in accord with the desire for a parkland setting – a parkland setting being the case since early settlement either as the result of grazing or mowing.

As noted, the lack of a clear conceptual direction or motif for the formal garden has resulted in *ad hoc* decision making by various gardeners and residents of the house as to which species should be planted.

Despite these alterations, the formal garden currently exhibits a strong sub-tropical motif. The focus on sub-tropical exotic plants and indigenous species as the basis for plantings in the garden is prudent. Sub-tropical plants are well adapted to the local conditions and more readily maintained in a healthy state. Importantly they offer great opportunity for the creation of a pleasing setting with plants of contrasting line, colour, form and texture in purposefully composed masses with sequenced blooming through the seasons – the necessary elements for a beautiful garden.

Going forward, this sub-tropical motif should be continued in a sustainably-managed way.

<sup>27</sup> Note that Tropman and Tropman suggested hand mowing the embankments around the tennis court by hand to preserve the landform. A hand mowing regime has not been implemented. The landform of the court is still readily evident twenty years after their recommendation but some rounding and softening of the contours has occurred as a result of machine mowing.

### 7.2.2 THE NEED TO CREATE A STRUCTURED GARDEN LAYOUT AND PLANTINGS

Government House is generally symmetrical around a northeast-southwest axis running from the rear entry (northeast) through to the front door (southwest) and then through to the flagpole. The northwestern verandah is asymmetrical around a staircase to the garden. The southeastern verandah has no access to the garden. The verandahs are approximately 900 mm off the ground. Each of the verandahs is supported by pillars that create a formal rhythm: six either side of the central axis, 5+4 either side of the stair on the southwest and 6 on the southeast.

The symmetry and formality of the building should be reflected in the garden layout and the structure of the plantings. To some extent this has been achieved in the current garden form but the strength of its execution has either been lost or was never fully realised. For instance,

- the hedging on the outer fence line either side of the flagpole is not balanced in shape or colour;
- the spacing for large shrubs at the rear of the foundation plantings is inconsistent and does not respond to the pattern of pillars on the verandah or balance around the staircases into the garden;
- the focal points going down the stair axes are not highlighted as might be done by strategically locating annual plantings or highlight plants in these locations.

Within the formal garden foundation plantings have been used to visually soften the junction between the building and ground. The width of these beds (1200-2300 mm) initially accommodated a layered planting arrangement of low bedding plants of multiple species at the front with larger specimen shrubs at the rear. As plants have matured, reproduced and/or spread, these layers have tended to become indistinct as has the differentiation between the larger shrubs.

The perimeter beds vary in width from 1800 mm to 4000 mm. In most locations, the rear of the bed adjacent to the fence is hedged with lower bedding plants facing inwards towards the house. In many places, bedding plants have invaded the hedges and the layering has broken down. The distinction between species of bedding plants has also been lost as plants have grown into each other.

Moving forward, the symmetry of the formal garden should be reinforced and greater definition achieved in the layering of plants within the beds and the spacing between species.



### 7.2.3 THE NEED FOR A GARDEN WITH A 'MAINTENANCE RATIONAL' FORM AND CONTENT.

The Garden today is diverse to the point of being unmanageable at all but the most basic level, that is, by severe pruning to keep plants in check, limited dead-heading or dead leaf removal, limited control of invasive ornamental species, etc.

A modified management regime is required to reduce the amount of maintenance required in the garden. While there is no such thing as a maintenance free garden a low maintenance or a 'maintenance rational' garden can be achieved. A maintenance rational garden is brought about by the simplification of the garden form and maintenance tasks through:

- consolidation and/or removal of some beds – makes lawn mowing easier and reduces the length of edges to beds that require trimming/clipping;
- the creation of clearly defined, mulched beds around specimen trees or clusters of closely spaced trees – makes lawn mowing easier and reduces clipping;
- the use of mowing edges between garden beds and lawn – reduces clipping;
- dense, mass plantings to suppress weeds;
- increased economies of effort achieved by limiting the numbers of species in the garden – limits the number of gardening tasks (pruning, dead-heading, etc.) required to ensure the health, vitality and attractiveness of the plants;
- selection of shrub species that naturally attain a desirable form – limits the amount of pruning required to maintain an attractively shaped form;
- selection of perennial species over annual ones – reduces labour inputs;
- selection of species that are adapted to the conditions of the site – reduces the need for inputs (irrigation, fertilizer, climate protection, etc.) to maintain health and attractiveness;
- chemical maintenance in selected locations;
- the use of mulches within beds and/or to define protected areas around the base of trees – reduces weed growth, maintains moisture in soils reduces need for trimming; and
- limited numbers of pot plants – reduces the need for hand watering and intensive care.

## 7. Issues

Within the formal garden there are several beds that could be eliminated to reduce maintenance inputs including:

- Bed 9, leaving the hedging only in this area – this is a relatively recent addition to the garden with little horticultural interest in the planting; and
- the free-standing bed at the base of the lamppost at the front of the house – this planting and the lamppost detracts from foreground views of the house and is likely a recent addition.

The three individual beds either side of the rear entry could be consolidated into a single bed, lessening the length and precision of edge that needs to be maintained.

Container plants add to the ambiance of a garden and are particularly useful for softening paved areas and small spaces. However, container plants require frequent watering and intensive management including occasional re-potting and/or fertilisation to achieve their best form and health.

In the Gardens, container plants feature strongly, adding delight to the verandahs, the front patio and internal courtyards. They are also prominent within some of the planting beds.

The very high number of pot plants in the Gardens, however, is problematic for maintenance, taking an inordinate amount of time and energy to care for them. A significant number of pots could be removed with little effect on the overall character of the Garden. Rationalisation of the numbers and types of species within the pots will also reduce maintenance requirements.

A maintenance rational garden would give a preference to perennial species over annuals. However, the contemporary public and ceremonial uses of the Gardens suggests that some strategically located annual species are appropriate. These can create visual delight when there may not be any otherwise in the garden. Furthermore, annuals can be used to provide cut flowers within the rooms of the house.

The focus on a 'second settlement' landscape suggests that edible species may be appropriate in selected locations. For instance, there is a strong case for growing herbs and vegetables in the courtyard adjacent to the kitchen as was likely done in the past and has recently been adopted. At the broader scale, cropping or grazing of the stockyard area is also appropriate. However, extensive areas of crops and grazing are maintenance intensive and would require a major change to the current management regime to be sustainable whereas kitchen gardening may be immediately possible, provided maintenance tasks are rationalised elsewhere.

### 7.2.4 THE NEED FOR SUSTAINABLE HORTICULTURAL PRACTICE

Once the maintenance rational garden is created, a high standard of routine care is required to ensure the day-to-day performance of the garden is satisfactory and the intent of the design is achieved as the landscape matures. Achieving this aim means more than maintaining a tidy appearance, it is about:

- selecting plant materials to suit the conditions of the site;
- caring for plants to ensure their best performance in terms of appearance (branching, flowering and fruiting);
- ensuring the health and vigour of the plant material;
- maintaining good garden hygiene in terms of the management of weeds, pests and infection;
- promoting healthy soils through mulching and fertilising;
- practicing good turf management; and
- watering effectively.

To date, the neat look of the garden masks a lack of high quality horticultural practice.

For instance, while seeking efficiency, a time-poor gardener will revert to gross pruning of shrubs to create a manageable shape to prevent over-crowding or over-growth. Such pruning comes at the expense of flowering with the removal of apical blossoms and/or the exposure of the woody interior of shrubs. This is particularly the case with the hibiscuses in the formal garden (blossoms removed) and the pohutakawa hedge (woody interior revealed). Greater time is required to properly shape these plants to promote flowering and/or to avoid exposure of woody stems.

Garden managers often debate the use of chemical versus organic methods to control weeds and pest. A time-poor or inexperienced gardener will tend towards chemicals when many garden problems can be dealt with by organic methods. A good gardener will know that choice of methods isn't an either-or situation but that both approaches have merit. Too much reliance on chemicals and pests can become tolerant of the toxins. Too much emphasis on organics and pests such as aphids or army worms can get on top of the maintenance crew. Until recent times organic methods were preferred. For instance pine oil-based sprays have been used to maintain the patio and pathways in a weed-free condition. Many organic techniques are, however, labour intensive and their use has diminished in favour of chemical controls.

Soils in the garden are high in calcium and low in phosphorous. In immediate times past, there has been a strong emphasis on composting garden wastes to overcome these constraints. Once again, composting is a labour-intensive task and has been severely constrained most recently by the lack of available time for the job.

## 7. Issues

Rainfall on the island is seasonably variable. This means that regular, deep watering is required in periods of low rainfall to maintain lawns and beds in the formal garden. Best results are achieved through the introduction of an automated watering system linked to soil moisture sensors and mulching.

Waterlogging is an issue on the low ground of the parklands. A strategy to deal with the flow of water in the Serpentine will address this issue. In the interim, constant flooding is affecting the health of two pines and making mowing difficult. Wet ground around the Stables is best addressed through mulching under the frangipani there to direct people away from the area.

Large trees require a regular regimen of pruning and other care to maintain their structure, stability and health. Dead or dying branches should be cleanly removed on a regular basis. Good arboriculture would also pay attention to the creation of an age diverse cohort of trees on the site.

Two white oaks on the lower lawn require immediate removal for safety reasons. Both suffer from some form of wet rot in their trunks and their root systems have been severely undermined (cause unknown) making them potentially hazardous in high winds.

There is also concern for the spread of fungal infection amongst the mature trees. *Phellinus noxius* (brown root rot) is known to affect pines and white oaks in the Government House Reserve. Brown rot spreads by root to root contact and potentially by air-borne spores. Stumps of infected trees are sources of infection. Removal of stumps and roots of infected trees is essential as is care to avoid damage to roots or trunks.

The creation of clearly defined, vegetation free root zones under trees in turf areas will assist in protecting trees from infection. Defined edges help reduce scalping of exposed roots (Photograph 19) which lessens the potential for fungal invasion. Defined areas could be created by chemically outlining the area to be mulched and then raking branchlets into the defined space. This approach would help resist the temptation to excavate to install garden edging around trees (plastic edging has been recently proposed).

If possible it would be good practice to restart the 'nursery' spaces that were in use until recently. The nursery ensures there are bulbs, perennials and seedling annuals on hand available for programmed plantings or as 'fillers' for maximum impact during events. The nursery can also be used as a place to reinvigorate pot plants for rotation onto verandahs and patios and into the courtyards.

The nursery could also be a location for growing selected material for cut flowers. The choice of material grown for cut flowers could be selected from the list set out in Attachment C. It would also be essential to talk to the staff who prepare the vase arrangements about their preferences for cut flower material.



**Photograph 19. Tree roots scalped by mower**

### 7.3 EXPERIENCE OF THE GARDEN

#### 7.3.1 THE NEED TO RECOGNISE THE ROLE OF THE GARDEN BEYOND HERITAGE

As discussed, the Government House gardens are not just a historic landscape, fixed in time, but are also a valuable living landscape serving as an official residence and as a gathering place in the contemporary life of the community. For these reasons it is important that aspects of the garden be managed in response to a calendar of events to enable appropriate official and community uses.

Visitors to a garden seek a beautiful presentation and a clear sense of care in its management. Visitors to a garden also look for other experiential qualities including connections to the wider landscape through the maintenance of views, seasonal colour, the smell of the garden and cut lawn, etc.

To this end, higher maintenance of and an ornamental approach to the formal garden is expected and should be continued. The proposed sub-tropical theme with some limited planting of annuals ensures colour in the garden in all seasons as a backdrop to social activities. High quality lawn care is also essential.

The production of flowers for cutting and attractive foliage is fitting in support of floral arrangements within the house.

The retention of the patio as a setting for larger events that would otherwise impact on the lawn areas is appropriate.

The long flat lawn on the northwest of the house should remain unhindered for its usefulness as a locale out of the wind for gathering, the erection of a marquee and/or for long table dining events.

Beyond community uses, the patio, the northwest lawns and verandas provide valuable tranquil spaces for residents of, or visitors, to the house.

#### 7.3.2 THE NEED FOR A 'THEMATIC INTERPRETATION' STRATEGY FOR KAVHA AND THE GARDEN

Interpretation has a strong role to play in making the visitor experience of KAVHA and Government House more rewarding, from which economic, social and environmental benefits will flow if properly delivered. The value of interpretation has been recognised in the recent Heritage Management Plan for the site which recommended that the KAVHA interpretation strategy be reviewed and updated<sup>28</sup>.

'Thematic interpretation' is a world's best practice approach to the delivery of meaningful, thought-provoking, take-away messages that promote visitor satisfaction, word-of-mouth promotion and repeat visitation. Thematic interpretation is based on more than two decades of communications

28 Context *et. al.* 2016. *ibid.*



## 7. Issues

psychology research identifying that the strongest connections to a location arise through the delivery of take-home messages that attach meaning to the places being interpreted. Once visitors attach meaning to the place being interpreted, the place matters to them.

Thematic interpretation involves the identification of:

- ‘themes’ – the take-home messages (full sentences not topics) that give meaning to information and are the gateway to personal understanding and emotional connection between the visitor and the place;
- audiences – these are more than general market segments or groupings; audiences are groups that share desired experiences as defined by the way they use or move about a site; and
- media – media are the mechanism for delivery of themes to the target audiences. Not all audiences respond to the same media; therefore a targeted approach to align media and audience is required for interpretation to be effective.

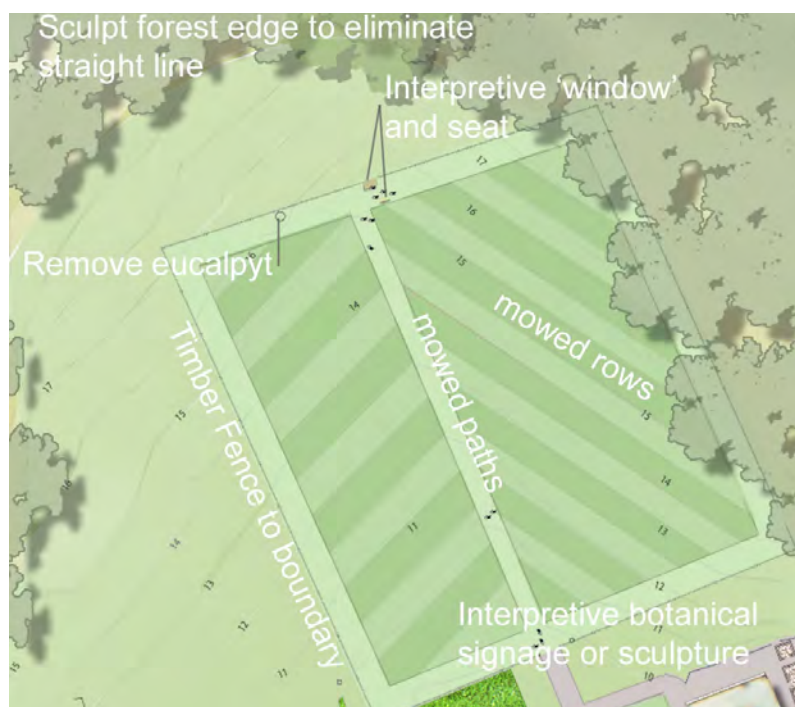
Within the Government House Grounds several themes might play out including:

- The self-sustaining lifestyle of the penal colony predates contemporary home-grown and community gardening efforts that are flourishing around the world today; and
- The ‘all work and no play lifestyle’ of the penal colony has changed dramatically to the lives of residents today that balances healthy lifestyles with work.

Having a thematic agenda will enable targeted efforts in the management of the Gardens to deliver on the take-home concepts.

For instance, an emphasis on a theme around self-sufficiency would suggest that more of the Gardens be used for food production. Wakefield’s plan of 1829 shows extensively cropped areas of the property that if redeveloped would authentically tell the story of second settlement and the necessity for expansive areas of food production for survival. Alternatively, Hamilton’s plan of 1850 shows ‘stockyards’ that incorporate several extant buildings that would support the telling of the self-sufficiency story.

As discussed, however, there is a disconnect between the available resources being put into the management of the Garden and a desire for working food gardens on the site. Nonetheless, the desire to appropriately interpret the site and the benefits that would arise from powerful, thematically driven interpretation, could create enthusiasm for greater funding for staff or alternative management approaches to enable meaningful food production in the Garden.



**Figure 5. Proposal to represent the kitchen garden at the Dockyard, Port Arthur<sup>28</sup>.**

Short of an expansive approach to production, the sense of cropping could be achieved through a considered mowing regime that alludes to parallel planting beds as is being been done at Port Arthur (Figure 5).

The second theme lends itself to discussions about whether to identify and interpret the tennis court.

The tennis court area is in a prominent location in the view to Government House on arrival. Despite this, Cserhalmi and Partners in their policies for this element offered that the court could be reestablished if required. If the court was reestablished or made more visible, it would contrast detrimentally with efforts to establish second settlement as a point of reference for conservation of the Garden. While the changing pattern of use through the 20th Century with increased emphasis on recreational activity in the island society may be important thematically, interpretation of the tennis court should be low key.

To this end, the landform of the tennis court should remain as its only readily identifiable mark. If there were an adamant push to further highlighting of the site, chemical or painted line marking could be used to outline the former playing surface.

<sup>28</sup> Inspiring Place 2005. "Port Arthur Dockyard - Implementation Master Plan for the Port Arthur Historic Site Management Authority

### 7.4 CAPACITY TO MANAGE

#### 7.4.1 THE NEED FOR UP-TO-DATE OVER-ARCHING POLICIES

The most recent Heritage Management Plan for the Kingston Arthur's Vale Heritage Area was completed in 2016. The plan was formulated in response to the requirement of the Environment Protection and Biodiversity Conservation Act 1999 to regularly review management documents for places on the World Heritage List. The HMP recommended that the:

- Landscape Management Plan for KAVHA (1994) be "reviewed and updated" as a 'cultural landscape plan'; and
- the CMP for Government House and the Quality Row Residences (1997) should be "reviewed and updated" and should include plant lists for the gardens .

This current study has addressed some of the issues that would be raised by either plan, examining views to the Government Gardens in the context of the wider site, identifying the current form and species of plants found in the garden and establishing a framework for their day-to-day management.

Preparation of both plans will provide a more comprehensive understanding of the Government House Gardens, their development and significance, their comparison to other like places and the basis to guide ongoing management including restoration or reconstruction of significant features.

In preparing a new Landscape Management Plan for KAVHA and a Conservation Management Plan for Government House, the authors should review the current document to ensure conformity with their findings. Importantly, the latter document should closely examine the gardens as well as the built fabric.

#### 7.4.2 THE NEED FOR AN APPROPRIATE STAFFING STRUCTURE

As discussed, the aim for the Gardens to be landmark in the KAVHA site and as a place of social significance establishes an onus to maintain the place to a high standard.

At present, maintenance of the gardens is undertaken by 1.4 full time equivalent employees under contract to the Commonwealth Department of Infrastructure and Regional Development. These positions are split between lawn care (0.4 FTE - contract admin, 8-10 hours per week) and gardening (1 FTE - 38 hours per week with no overtime or weekend work).

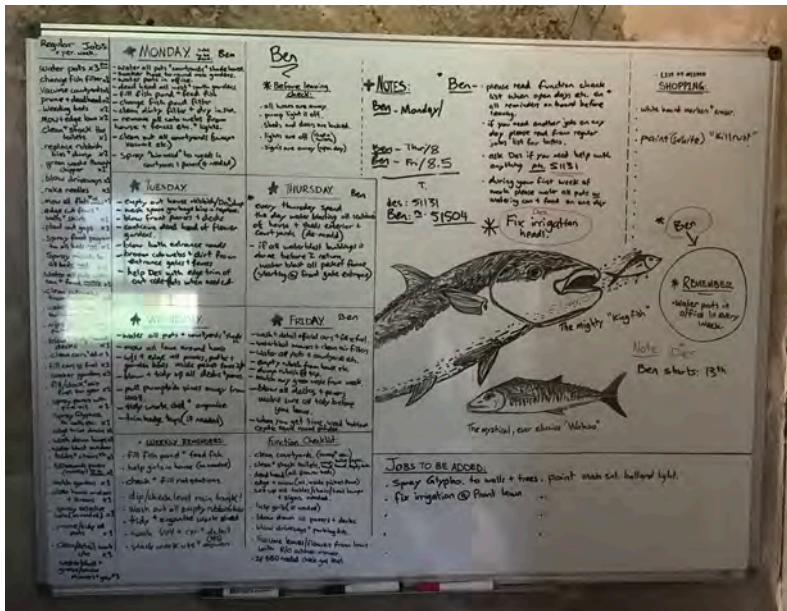
Lawn care involves gang mowing of the parklands and stockyards on a weekly basis and chemical maintenance of lawns including weed and insect pest control as required.

The duties of the gardener include all horticultural tasks to maintain bed and container plants to an acceptable level of presentation, mowing of the lawn in the formal garden, follow up care to the lawn areas in the parklands including edging of paths and beds, clipping of areas that mowers cannot reach, pest and weed control, maintenance of lighting and irrigation, weekly detailing of the Administrator's car, inside tasks including changing globes and other working at heights tasks as required (Photograph 20).

Despite the enthusiasm of the current contractors, the time and effort required to undertake the listed tasks exceeds their contracted time commitments. Some of the recommendations herein will ease their burdens, including rationalising the existing plantings to simplify the layout and species diversity of the formal gardens (see Section 7.2.3).

However, the extent of the changes required cannot reasonably be expected to be made as part of the gardener's current job description. Achievement of a maintenance rational garden will require additional labour inputs by a team of highly qualified horticulturalists working systematically over a focused period of time.

Once the garden is rationalised, there will still be issues around the time required for the level of horticultural care required to maintain the Garden as a place of community pride (see Section 7.2.4), much less to plan for and develop new initiatives to meet heritage conservation objectives (see Section 7.1.1).



**Photograph 20 (left)**  
**The gardener's week.**

### 7.4.2 THE NEED TO CREATE APPROPRIATE CONTRACT ARRANGEMENTS

The main purpose of the current study is to develop a strategic, long-term framework for the care of the Garden that:

- delivers on the promise of the area as a place of World Heritage significance;
- conveys its role as an official residence and a place of importance in the life of the community; and
- achieves a high standard of horticultural stewardship over a long period of time.

Three factors constrain the capacity to effectively manage the Gardens in this way:

- the requirement to annually contract for services to a limited pool of capable gardeners;
- the current arrangement whereby lawn mowing, gardening and general handyman tasks are dealt with under a single contract; and
- the lack of management partnerships to assist with the care of portions of the gardens.

As mentioned gardens require a continuity of vision and effort to achieve their best potential. Short term (annual) contracts are antithetical to this outcome. Longer term contracts should be considered (say 3 years). The criteria for the selection of contractors should be weighted towards those with proven experience.

As noted the breadth of gardener's role is too great. Horticultural tasks could be separated from those for large area mowing and those of the general handyman, effectively focusing the gardener's efforts on management of the formal garden and beds at the rear entry to the house.

The aim to produce food from the Gardens could be achieved through the development of a management partnership(s) for a portion(s) of the site. For instance, the lease of the dairy or the stockyards or a memorandum of understanding for such a purpose would have multiple benefits. A partnership arrangement could release the gardener from any expectation that this was part of their role and put these areas to better use in terms of interpretation, job creation and health benefits in the community from the availability of fresh produce.

Any partnership arrangement would be contingent on protection of the values of the site and demonstration of a financial business case to support viable management of the site through the term of the lease. In return, the partner(s) should be given a term of sufficient length to encourage the investment and time required to establish such a garden.



## 8. Going Forward

The discussion in Section 7 described the issues that must be addressed if the Government House Garden is to be managed to meet the multiple objectives for it. The discussion gives rise to the following over-arching management directions that reinforce the principles for management set out in Section 6:

- adopt a focus on the second settlement role of Government House when considering restoration or reconstruction while ensuring the continued community use as a place of importance to the Norfolk Island community;
- adopt a sub-tropical concept/motif for the planting of the formal garden while reinforcing and giving greater definition to the layering of plants within the beds and the spacing between species
- adopt a maintenance rational approach to the form and content of the Garden; and
- separately engage appropriately qualified professionals and give them the resources necessary to achieve the aims for the care of the Gardens.

These directions are addressed by the following recommendations.

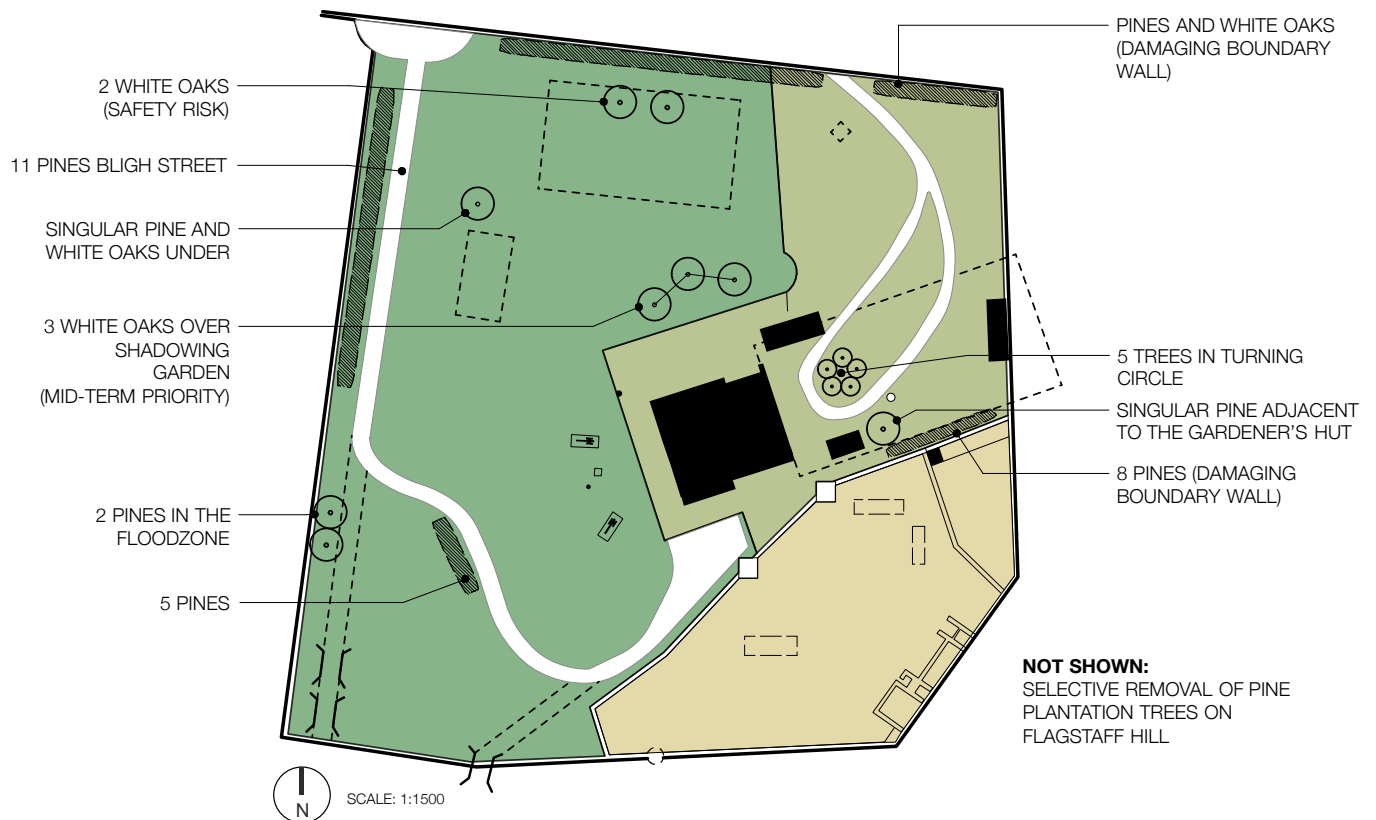
### 8.1 RECOMMENDATION 1 - CONSERVE THE HERITAGE SIGNIFICANCE OF THE GARDEN.

**Recommendation 1.1** Remove pines where they are encroaching on built fabric, specifically:

- the outside row of 8 trees along the north boundary of the Stockyard and the tree on the inside row closest the present-day gardener's shed; and
- the row of 11 pines and 5 self-seeded white oaks along the boundary wall to Quality Row.

**Recommendation 1.2** Develop a strategy for the staged removal of pines and oaks that significantly impede views to and from Government House (Figure 6) including:

- the long row of pines along Bligh Street (remembering that the first four starting at Quality Row are of earlier origin and should be retained);
- two pines within the flood zone of the Serpentine;
- the five mid-sized pines on the lower side of the drive to Government House;
- the plantation of pines on the east face of Flagstaff Hill on alignment with the flagstaff in the formal garden;
- singular trees, and wild white oaks under, in the paddock below Government House in the line of sight from Bligh Street; and
- trees in the turning circle at the rear of the house.



**Figure 6. Trees to be removed**

## 8. Going Forward

**Recommendation 1.3** Remove garden escapes that are colonising building fabric including at the cellar entry door, on steps and in the foundations of the verandahs.

**Recommendation 1.4** Undertake survey and archaeological investigations required to give clarity to the potential for reconstruction and/or interpretation of the ornamental garden (see Recommendation 1.4) .

**Recommendation 1.5** Consider restoration or reconstruction of the 'ornamental garden', roads and/or paths shown on Lugard's and/or Hamilton's plans provided enough evidence can be found to determine the extent to which these features were developed, their location and the construction methods used.

### 8.2 RECOMMENDATION 2 – SUSTAINABLY MANAGE THE GARDENS

**Recommendation 2.1** Continue to maintain the lawns of the parklands to a standard equivalent to that for a golf course fairway, including mowing height, weed management and pest control.

**Recommendation 2.2** Engage qualified arboricultural assistance to:

- remove the two unsafe white oaks adjacent to the 'ornamental garden'; and
- inspect the health and safety of the remaining trees using the QTRA rating tool to evaluate risk (thereafter, this should occur as part of a regular 5 year program of tree care).

**Recommendation 2.3** Undertake the necessary tasks to create a maintenance rational garden as described in detail in Attachment B. This includes tasks to (Figure 7):

- reinforce the formality of the garden including:
  - balance the extent and colour of the hedging either side of the flagpole;
  - ensure greater definition in the layering of plants with the beds and spacing between species;
  - space shrubs and pot plants relative to the verandah posts; and
  - create highlight plantings of annuals on key garden bed axes and in a select few other locations;
- remove Bed 9 and the free-standing bed at the base of the lamppost at the front of the house (including removal of the lamppost) and replant these areas to grass;
- consolidate the 6 small circular beds at the rear entry into 2 beds, one either side of the path and replant either as a single species of perennials or as hedges;
- reduce the number of container plants in the garden by half and re-pot where necessary to ensure that mixed plantings have similar watering requirements;

## 8. Going Forward

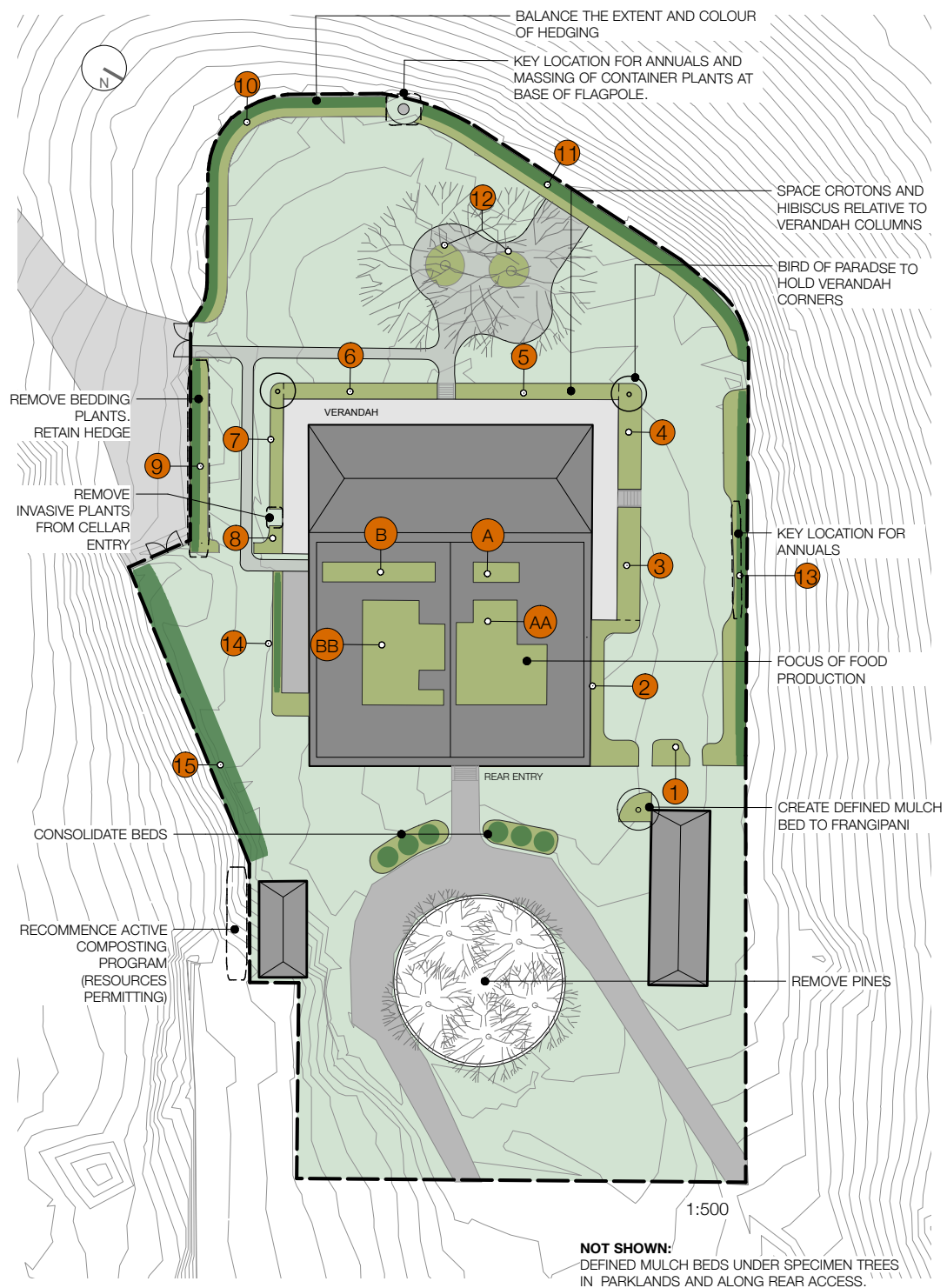


Figure 7. Key tasks

## 8. Going Forward

- focus food production into the kitchen courtyard (Courtyard AA); and
- establish vegetation free, mulched beds under specimen trees.

**Recommendation 2.4** Immediately target for the removal of the following weeds from the Garden because of their high potential to become invasive (Attachment D):

- mother-of-thousands (*Kalanchoe daigremontiana*);
- Madeira vine (*Anredera cordifolia*); and
- little ruby (*Alternanthera dentata*).

**Recommendation 2.5** When time and resources permit, re-commence composting to ensure the health of the soil and the nursery to support replanting and the production of cut flowers in support of the maintenance rational gardening concept.

**Recommendation 2.6** Undertake the continuing tasks to maintain the Garden to the high standard expected for the place as described in detail in Attachment C.

**Recommendation 2.7** Engage an irrigation specialist to:

- review the irrigation system and make recommendations regarding:
  - expansion to new areas;
  - automation; and
  - the use soil moisture sensors;
- install irrigation to the lawns and beds in the rear entry area; and
- advise on how to address dry spots in the front lawn irrigation where there is insufficient overlap between sprinkle heads.

### 8.3 RECOMMENDATION 3. ENHANCE THE EXPERIENCE OF THE GARDEN

**Recommendation 3.1** Prepare a thematic interpretation strategy for KAVHA in support of interpretation of the Government House garden and its historic and contemporary roles in island life.

**Recommendation 3.2** Establish and maintain a seasonal calendar of events to enable planning of garden maintenance and planting of annuals to suit.

**Recommendation 3.3** Consider re-introduction of cropping or grazing of the stockyards (contingent on time and resources being available to maintain such activities).



### 8.4 RECOMMENDATION 4. ESTABLISH THE CAPACITY TO MANAGE THE GARDEN

**Recommendation 4.1** Support preparation of up-to-date management documents for KAVHA including review and updating of the:

- Landscape Management Plan for KAVHA; and
- Conservation Management Plan for Government House, ensuring specific analysis of the significance of the Gardens.

**Recommendation 4.2** Consider possibilities for engaging outside specialist horticulturalists to undertake the works of re-invigorating the Gardens to be more maintenance rational in line with Attachment B.

**Recommendation 4.3** Consider splitting the current contract arrangement into 4 contracts:

- garden maintenance within picket fence and rear entry (weeding, hedging, lawn mowing, edging, composting, care of the courtyard gardens and planning for and development of new initiatives to meet heritage conservation objectives) – a three-year contract for 2 people;
- lawn care (mowing, edging, clipping, top-dressing and repair as required) of the parklands and stockyards;
- handyman/house maintenance (car care, building repairs and maintenance including karchuring of surfaces, replacement of light bulbs and working at heights tasks); and
- arboriculture – periodic engagement (minimum of 5 years) to implement QTRA system and act on its recommendations.

# ATTACHMENT A

## STATEMENT OF REQUIREMENT: LANDSCAPE AND GARDEN CONSERVATION AND MAINTENANCE ADVICE FOR GOVERNMENT HOUSE GROUNDS, NORFOLK ISLAND

### CONTEXT

Norfolk Island Government House is a component of the World Heritage Listed Australian Convict Sites Kingston and Arthur's Vale Historic Area (KAVHA). It is also listed in the Australian National Heritage List, the Australian Commonwealth Heritage List, the Norfolk Island Heritage Register and by the National Trust of Australia. The 2016 *KAVHA Heritage Management Plan*, developed by Godden Mackay Logan (GML), is the central planning and management document for the site. Tropman and Tropman Architects developed a *Landscape Management and Conservation Plan*, which considers the Government House area, in 1994 and a report on *Government House and Quality Row Residences Gardens Conservation* in 1997.

Government House was constructed in 1828-9 during the island's second penal settlement period. It was erected over the foundations of the former government house and soldier garrison buildings which were built from 1803 during the first penal settlement period.

Government House, its outbuildings and its 9.25 ha of grounds, form a significant historic landscape. The property is a working residence, the venue for formal and community events and a key component of the historic landscape of which it is a part.

The grounds require different intensities of maintenance and are accordingly divided into three zones. An area comprising approximately 2600m<sup>2</sup> (3%) is maintained as a formal garden and a second, extensive area is maintained as parklands. A third area, historically used for animal husbandry and more recently as a vegetable garden, is currently unutilised and is being considered for establishment and management as a working produce garden and possible pasture. There is also a desire to provide for the production of cut flowers in an area of the grounds for use in the house in formal arrangements and by the community for funerals or commemorations.

### REQUIREMENT

Advice from a suitably qualified and experienced provider with landscape/heritage garden/horticultural expertise is required to develop a plan to guide the appropriate management of the grounds of Government House. The provider will be required to:

- 1. Review key relevant documents and plans for the Government House site, including the 2016 Heritage Management Plan, particularly recommendations relating to landscape and gardens conservation, and the 1994 and 1997 Tropman and Tropman reports.**
- 2. Evaluate and report on the adequacy and appropriateness of the current grounds management regime across the three landscape zones with particular regard to:**
  - a. heritage value management
  - b. view shed management
  - c. plantings
  - d. maintenance, including weed control, reticulation, mowing and pruning regimes and hedge management.

# ATTACHMENT A

**3. Provide recommendations on the appropriate management of Government House Grounds as heritage gardens and part of the cultural landscape of KAVHA. These recommendations are to:**

- a. be practical in nature
- b. take into account the working nature of the property and contemporary expectations as to the presentation of such a residence
- c. be respectful of its overarching social value to the Norfolk Island community.
- d. staged as to their physical implementation requirements and realisation of the full extent of their aspiration.

**4. Provide recommendations on changes to the current layout of the gardens to better reflect the heritage values of the site, This is to include:**

- a. Advice on the restoration of historical features and/or removal of intrusive elements.
- b. The provision of an appropriate plantings list for each zone of the grounds. In regard to the formal gardens this is to be with the objective of maintaining a presentation appropriate to the function of the house and heritage values of the site within the broader context of KAVHA (possibly, though not necessarily, aligned to its likely appearance in the second settlement period).<sup>14</sup>
- c. Advice on where nursery stock, inclusive of annuals, should be established.

**5. Develop a framework to enable consistency in the on-going management of Government House Grounds which outlines the weekly/monthly/seasonal management requirements including:**

- a. An estimate of labour and material costs across a 12 month period, and a statement about expertise and experience requirements of service providers.
- b. The provision of a planting and pruning regime for the formal element of Government House Grounds that incorporates the production of cut flowers for the House and ceremonial purposes.
- c. The provision of a list and visual cue card of weed species to be excluded from or managed within the Government House Grounds.
- d. The provision of a reticulation regime for the three zones of the grounds and their various elements, including for potted plants.
- e. The provision of a mowing regime for all three zones of the gardens.
- f. A set of measurable key performance indicators for use in the management of Government House grounds maintenance reflective of the above. These must be suitable for use by non-gardening experts and not open to interpretation.

The Commonwealth Heritage Manager will provide assistance on Norfolk Island, including a familiarisation tour of Government House Grounds and relevant elements of KAVHA and introductions to the Administrator, relevant personnel and community members.

## ATTACHMENT B

### CREATING THE MAINTENANCE RATIONAL GARDEN

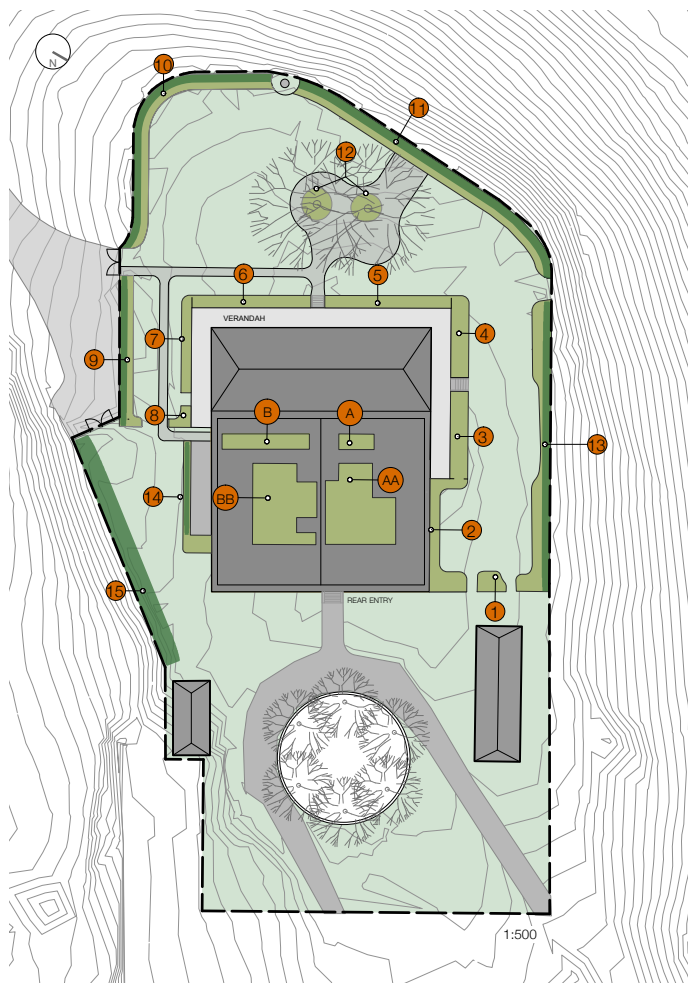
The initial resetting of the Gardens plant layout would be best undertaken in situ by a team of professional horticulturists working with the Gardens staff as a one-off project.

This would require the removal, hard pruning and repositioning of some of the major structural plant material and the considered replacement of most of the flowering, foliage colour and textural plant material for best effect and horticultural efficiency.

This process would take 4 skilled horticulturists approximately 5 days (need to work out costs).

On-going maintenance beyond this initial reconstruction is described in Attachment C.

Note, while the recommendations herein cover the basic changes to enable structural change to each bed, they do not cover the entirety of the plants to be removed from or included in the beds.



**Map B. Disposition of garden beds. Numbering follows that in Tropman and Tropman 1994 and as amended herein.**

# ATTACHMENT B

## GARDEN BED 1

### Existing Conditions

This small bed is a focal point at the end of the northern side lawn of Government House. Apart from several out of place foliage plants and a small outbreak of onion weed, Bed 1 only requires minor structural change.

### Dominant species

*Acalypha* / *Duranta* / crotons /± 5 more

### Recommendations

Concentrate red-foliaged crotons at the rear of the bed. Position a row of red / pink-foliaged *Acalypha* in front of the crotons. The *Acalypha* need to be loose pruned to be lower in height than the crotons. The *Duranta* at the front of the bed can be pruned more formally into globes ~800 cm round to provide a structural focal point at the end of the long view down the lawn.

### Maintenance

Remove the onion weed.



Garden Bed 1

## GARDEN BED 2

### Existing Conditions

Bed 2 has a trellis structure erected to shade the north facing wall of the House. The structure is visually out of place. The plantings are a mix of old and new and lack cohesion.

The bed has a minor problem with onion weed and is host to a Maderia vine that will require removal.

### Species noted

passion fruit on climbing frame, mondo grass edge / ±13 more

### Recommendations

Remove the trellis structures, replace them with three free-standing climbing trellises placed equidistantly along the wall. Approximately 3 m x 3 m and positioned 300 cm from the wall of the house. Plant with climbers (could include a replacement edible passion fruit). Selection will depend on available choice.

The bed in front of the trellises and the corner leading to the gate should be simplified to contain a selection of the mid-border and front of border plantings proposed for beds 3 and 4 with a focus on the provision of cut flower material for use in the house. This will also serve to connect this bed visually with beds 3 and 4.

### Maintenance

Remove the Maderia vine immediately.

Manage the onion weed.



Garden Bed 2



# ATTACHMENT B

## GARDEN BEDS 3-4

### Existing Conditions

These beds are north facing and are shaded in the mornings with full sun in the afternoons. The beds have a rich, colourful, sub-tropical feel and are strongly reliant on foliage colour and texture for effect. Due to the complex range of different plant material and in some cases the positioning of that material the beds lack cohesion.

This north facing side of the house is used as a private garden for the Administrator and as a social gathering space.

### Species noted

*Coleus* / *impatiens* / *hibiscus* / *canna lily* / *Duranta* / *lavender* / ± 9 more

### Recommendations

Simplify the range of plants used while maintaining the subtropical character of the beds with both flowering and foliage colour and through the use of border plantings backed by regularly spaced and structural plants.

Give the two beds a more symmetrical appearance by loosely mirroring the beds each side of the side entry steps.

Loosely trim plant material to verandah height (900 mm) with structural shrubs to 1500 mm

Prune generally for flower production rather than geometric form/shape.

Rescue globe artichokes in Bed 4 for planting out in the Kitchen Garden Courtyard.

Rescue *Alstromeria* (mid bed 3) – reposition strategically towards the front of the border in both beds.

Structural plantings:

*Alternanthera ficoidea* (red /crimson foliage plant). - This plant is currently well sited at the northern corner of the verandah in Garden 3, if possible it would be good to find 3 more of the same plant to place at both ends of the verandah and either side of the central steps to 'bookend' Beds 3 and 4.

Develop a rhythm of groups of (3-4) closely planted ornamental foliated cordylines positioned centrally between the verandah columns. The cordylines can be pruned to up to 300 cm over verandah height. Position selected hibiscus plantings in front of each column.

Mid-zone plantings:

Alternate *Duranta* and red/pink foliated *Acalypha* in the mid-zone between the structural plantings at the rear and the border plants in front.

Front border / colour plantings include:

A balance of foliage and flower colour to ensure continual interest by combining annuals, bulbs, and perennials in clumps. With bulbs like



Garden Bed 3



Garden Bed 4

## ATTACHMENT B

*Eucomis*, *Hemerocallis* sp. and *Alstroemeria* planted in March for a late Spring / Summer / Autumn display. Plant calla lily (*Zantedeschia*) and *Ranunculus* in May for a Spring display.

The positioning of clumps in Bed 3 should loosely mirror the position of similarly sized clumps in Bed 4

### Annuals:

Select from the suggested annual list (see below), choose 3 to 4 plantings covering the Spring and Summer periods for use throughout the Garden in any given year. Alternate plants from the list on a year by year basis. Prepare 2 - 1.5 m long by 500 mm deep spaces in each bed with two of the annual plantings positioned on either side of the steps.

Annual List: impatiens, bedding begonias, marigolds, snapdragons, petunias, *Lobelia*, pansies, *Coleus* and salvias. -

### Maintenance

Remove all plant material from crevices in the stonework on the steps and from the verandah.

Remove self-sown garden plants (*Kentia* palms). Remove the variegated coprosma from the corner of Bed 4/5.

### GARDEN BEDS 5-6

#### Existing Conditions

Beds 5 and 6 frame the main frontage of Government House, they are narrower than beds 3 and 4 with less foliage colour and without the variety of plants. The beds are an important visual backdrop for the patio, the main outdoor gathering space for the site.

#### Species noted

hibiscus / *Cordyline terminalis* / *Cordyline* spp. / *Clivea miniata* / *Strelitzia reginae* (bird-of-paradise)

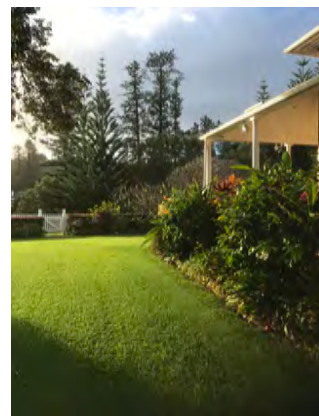
#### Recommendations

##### Structural plantings:

Position the *Cordyline terminalis* (ti plant) to alternate with *Hibiscus* cultivars, with the cordyline set in the gaps between verandah posts and the hibiscus loosely in line with the posts. Prune the hibiscus close to the height of the verandah. Allow the cordyline to grow up to 300 cm over the height of the verandah. Split and move the *Strelitzia reginae* (bird-of-paradise) in Garden 5. Position it to anchor the corners of beds 4/5 and 6/7.

##### Mid-zone plantings:

Where there are gaps plant red/pink foliated *Acalypha* in the mid-zone between the structural plantings at the rear and the border plants in front.



Garden Bed 5



Garden Bed 6

## ATTACHMENT B

Front border / colour plantings:

Alternate *Clivea* and *Eucomis* with annuals in any of the larger gaps and positioned symmetrically over both the beds and either side of the steps.

Annual List, select from: impatiens, bedding begonias, marigolds, snapdragons, petunias, *Lobelia*, pansies, *Coleus* and salvias.

### Maintenance

Remove all growth on the steps the verandah and the verandah walls.

### GARDEN BEDS 7-8

#### Existing Conditions

Beds 7 and 8 are on the southern side of the house and are exposed to the extreme salt laden wind conditions of the ocean frontage. The structural elements of the existing plantings (*Cordyline terminalis* and *Crassula ovata*) have borne the conditions with minimal negative impact (the cordyline do require regular care and the removal of damaged leaves and trimming to manage their height in relation to the verandah). The views out from the garden are the main point of view in this area, the beds need to be visually strong but don't need to have the colour range of the other main beds.

#### Species noted

*Cordyline terminalis* (ti plant / Pitcairn) / *Crassula ovata* (jade plant) / *Dianella intermedia* (NI native) / Arum / *Cyathea* / *Asplenium nidus* (bird's nest fern) / pohutakawa / *Sansevieria trifasciata*.

#### Recommendations Bed 7

Create 250 / 300 cm clear zone along back of planting beds along the full length of the verandah.

Structural plantings:

*Cordyline terminalis* (ti plant ) centred on posts, *Crassula ovata* positioned between the cordyline. Allow the cordyline to grow up to 300cm over the height of the verandah, manage the *Crassula* to reach verandah height.

Front Border:

Alternate dwarf iris, arum lilies, *Dianella* and *Rhoeo tricolour* (rescue the self-sown *Rhoeo* plants near the cellar steps and plant in gaps). Don't use annuals.

#### Recommendations Bed 8

Remove all vegetation from the landing and steps to the cellar. Remove *Sansevieria* (mother-in-law's-tongue).

Retain the existing *Raphiolepis*, prune against the verandah wall, mass arum lily and dwarf iris rescued from the cellar entry to near the ramp. As the bed turns the corner near the ramp add a patch of *Rhoeo discolor* to tie in with the plantings at the base of the ramp.

Transplant *Cyathea* and other ferns infringing on the entry to the Cellar to the Bed 13 rainforest or into the courtyard fernery.

Split and move the dianellas to the ramp bed.



Cellar door - between Garden Beds 7 and 8. Plants affecting heritage fabric should be removed.

# ATTACHMENT B

## GARDEN BED 9

### Existing Conditions

As with beds 7 and 8 the views out from the garden are the main point of focus in this area. To enhance that focus the beds need to be defined and visually strong but don't need to have the colour range of the other main beds.

### Species noted

rosemary / agave / chrysanthemum / impatiens / pōhutukawa hedge

### Recommendations

Remove the bed at the base of the hedge (currently filled with chrysanthemums) and reinstate the lawn leaving sufficient bed edge to introduce mulch. Leave the hedge only.

## GARDEN BEDS 10-11

### Existing Conditions

These two long beds extend from each side of the flagpole, Bed 10 on the south side and Bed 11 to the north. Both beds are fairly narrow and backed by a mixed combination hedge with pōhutukawa, *Duranta*, *Acalypha* and *Tecoma*. Bed 10 starts at the formal entry gate with shasta daisies and *Sansevieria* with both plants having been allowed to spread. The *Sansevieria* provides a strong visual element with its upright leaves, unfortunately it has seriously invaded the adjacent hedge. The Shasta daisy is a strong performer (according to garden staff) flowering prolifically during its season (possibly also a vase flower?). The area near the formal gate also has an onion weed problem. The rest of the bed to the flagpole is a very mixed planting and lacks cohesion. Bed 11 ends at the gate overlooking Quality Row and extends back to the flagpole with a 3m break created by the patio space and its backing of Crotons. The plantings in Bed 11 are also very mixed and lack cohesion. Beds 10 and 11 are significant visual elements in the Garden's main social gathering space.

### Species noted

*Agapanthus* / ginger (two types) / agave / geraniums / pelargoniums / Shasta daisy / *Euyrops* / *Plectranthus argentatus* / *Duranta* 'Gold Mound' / *Coleus* / impatiens / onion weed / *Coprosma* / *Sansevieria trifasciata* / *Tradescantia spathacea* (*Rhoeo discolor*) / gazanias.

### Recommendations

Manage these beds loosely as a symmetrical pair of beds centred on the flagpole.

Consider massing potted colour at the base of the flagpole with annuals in pots around base and for 3 m either side. Then mass plantings of *Agapanthus* (2 m long groupings) to frame the annuals, then mixed *Tradescantia spathacea* (*Rhoeo discolor*) (1.5 m groupings) and annuals (2 m plantings) around to gates at either end of bed.

Manage the formal gate end of Bed 10 by removing the *Sansevieria* and controlling the onion weed then replace the last 1.5 -2 m of bed nearest the gate with *Tradescantia spathacea* (*Rhoeo discolor*). Lift split and



Garden Bed 10 - *Acalypha* hedge



Garden Bed 10 - *Sansevieria* invading adjacent hedge.

## ATTACHMENT B

selectively replant the Shasta daisies. Reposition them in 2/3 m lengths in the area between the *Tradescantia* at the gate - to the corner of the bed. Leave two 1.5 / 2 m. spaces in the Shasta daisy plantings to allow the annual plantings to be drawn through from the rest of the bed.

Where Bed 11 meets Garden Bed 12 at the patio, select a row of 1.5 m tall crotons of, ideally, the same or similarly coloured variegated cultivars at the back edge of the paved space as a singular highlight. These are currently in place but with a mix of variegated cultivars.

Hedging:

Plan to re-establish the hedge either as a single species hedge or as more defined lengths of the best performing species (pōhutukawa, *Acalypha*, *Duranta*).

Annual List, select from:

impatiens, bedding begonias, marigolds, snapdragons, petunias, *Lobelia*, pansies, *Coleus* and salvias.

### GARDEN BED 12 (PATIO)

#### Existing Conditions

The current hard surface of the patio and internal path system consists of cream coloured concrete pavers laid in a 'uniform' pattern. In time these should be replaced with differently sized pavers with a more random paving pattern that better reflects the building's heritage. The organic shape of the paved area seems to work successfully and should be retained.

The plant material in the beds directly under the two white oaks looks to have suffered from a few dry periods (the *Clivia* had damaged leaf tips and the *Dimorphotheca* was generally unthrifty).

The pot plantings were generally healthy and performing their role by adding interest to the area.

#### Species noted

*Clivia miniata* / *Dimorphotheca pluvialis* (both planted under the White Oaks)

A selection of potted plants including: *Tradescantia*, Geraniums and *Crassula*.



Garden Bed 12 (Patio)



# ATTACHMENT B

## Recommendations

Ensure the beds under the white oaks are well mulched, trim or pull the *Clivia* leaves to ensure a healthy appearance (consider lifting, reducing and replanting the *Clivia*). Prune the *Dimorphotheca* back by 2/3rds. Lightly fertilise the tree beds on a seasonal basis, make sure the mulch is pulled well back from the white oak trunks.

Consider reducing the number of pots and regularly rotating them on a seasonal basis (only if this can be undertaken easily, some of the pots are too big to handle without support and the right equipment).

## **GARDEN BED 13**

### Existing Conditions

Bed 13 lies directly opposite Beds 3 and 4 and the north facing entrance to the house. As such Bed 13 holds the principal view from that verandah. The bed is wider at both ends and narrows significantly opposite the house side steps. The strongest elements in the current planting are a number of small tree-sized *Frangipani*. Generally the bed is overpopulated by plant material including a number of weed species and isolated single specimens and consequently is visually confusing. Significant plants in the Bed include a labelled planting of the Norfolk Island Hibiscus, and the dramatic foliage of the endemic *Meryta angustifolia*. The northern end of Bed 13 has a tropical rainforest feel with a collection of large ferns under palms.

### Species noted

balsam / *Abelia* / elkhorn fern / bird's nest fern / *Diffenbachia* (dumb cane) / *Streptocarpus* / cycad / geranium / Crotons (two types) / *Azalea* / mother-of-thousands / *Crassula* / lily / *Meryta* / spider plant / *Clivea* / staghorn fern / orchids / *Asparagus* / *Coleus* / white oak / *Philodendron xanadu* / ginger / Palms (*Kentia*, native NI palm) / begonia cultivars / *Duranta* Sheena's gold / violets / *Raphiolepis* / *Agapanthus* / *Nandina* / impatiens / hibiscus / *Tecoma capensis*.

### Recommendations

Simplify the bed by reducing the overall number of species and adding more mass to the selected plantings.

Remove all the self-sown and single species plantings (*Azalea*, *Abelia*, *Fuchsia* and others)

Remove major weeds species (*Alternanthera dentata* and mother-of-thousands (*Kalachoe*))

Retain the frangipani (thin some central branches to encourage flowering).

At the southern wide end of Bed 13 – Rescue the *Meryta* and move to the 'rainforest' section at the northern end of the same bed. Reduce the height of the central hibiscus and retain in the current location, leave the *Raphiolepis* at the rear. For the time being, retain the two *Nandina domestica* either side of the gate. Frame the southern gate on the left side with hedged *Acalpha* (red variegation) and on the right side with open



Garden Bed 13.

## ATTACHMENT B

grown *Acalpha* (red variegation). Introduce selected annual and / or seasonal bulbs into the larger gaps between the front of bed plantings. Lift and move some of the *Hippeastrum* under the frangipani to a position near the gate end of the bed. Leave, and thicken up the *Philodendron xanadu* under the frangipani and mass the *Hippeastrum* under the Frangipani almost to the corner where the bed *Hippeastrum*.

Remove the *Alternanthera dentata* from the central narrow section of the bed. Bookend the narrow bed with *Philodendron xanadu* at both ends, treat the front edge of the narrow bed as a layered annual planting with a taller annual selection behind and a shorter annual in the front of the bed. Underplant the hedge of *Tecoma* at the rear of the narrow bed to thicken up the bare front section of the hedge

At the northern wide end of Bed 13 – position *Hippeastrum* where the bed starts to re-thicken after narrowing down, move the *Meryta* to the rainforest end and remove the pot plants. Retain the Phillip Island bed but trim it back by at least a third with the aim of thickening it up. In the next of the bed section retain the planting of yellow variegated crotons at the rear but cut down to 1200 mm. Carefully remove the *Kalanchoe* that is infesting the front of the bed. Once weeded replant the front of the bed with a red flowering begonia or a similar plant.

In the far northern corner, focus on creating a tropical rainforest feel under the palms with large leaved plants (*Meryta*) and ferns (bird's nest, staghorn).

Frame the northern gate arch with bougainvillea on the fence and over the arches.

Annual List, select from:

impatiens, bedding begonias, marigolds, snapdragons, petunias, *Lobelia*, pansies, *Coleus* and salvias.

Hedges:

Manage the *Tecoma* hedge to get full coverage, trim the hedge to just below the height of the picket fence.

### **Maintenance**

The significant weed problems in this bed (*Alternanthera* and *Kalanchoe*) will require careful removal and will need to be regularly followed up to ensure that fresh outbreaks are managed.

## ATTACHMENT B

### GARDEN BED 14 (RAMP)

#### Existing Conditions

These beds are on the exposed northeast face of the building and subject to high salt-laden winds. Full morning sun to full shade in the afternoons.

#### Species noted

*Dianella* / “bloodnuts” (possibly related to *Myristica* sp) /iris / cordyline / *Meryta* / ± 5 more.

#### Recommendations

Maintain mulch only under the ramp. Spray and remove weed growth.

Plant a cluster of *Meryta* in the small bed under the corner of the ramp landing, with flax in front of the *Meryta* and a massed planting of *Dianella* directly at the front of the bed .

Simplify the main bed by interplanting the pre-existing “bloodnuts” (related to *Myristica* sp) with *Dianella*, dwarf iris and *Tradescantia spathacea* (*Rhoeo discolor*)

Plant *Tradescantia spathacea* in the small bed at the base of the ramp.



Garden Bed 14

### GARDEN BED 15

#### Existing conditions

Exposed northeast side of the garden subject to high winds. Full sun.

#### Species noted

pōhutukawa hedge

#### Recommendations

Retain pōhutukawa hedge along fence line. (This is a future concern if myrtle rust were to reach the island).

Fertilise bi-annually (March-April and September-October) and maintain shape on a regular basis. Avoid over-pruning that exposes the twiggy interior.

### GARDENER'S HUT (OUTBUILDING AIG)

#### Existing Conditions

The Gardener's Hut has a narrow bed less than a metre wide bed across its frontage and down its western side. The beds add to the building's appearance but have the potential to impact negatively on its integrity.

#### Species noted

*Alternanthera dentata* / others

#### Recommendations

Given the potential impact of planting beds directly in contact with a significant heritage structure the beds should be removed until their potential impact on the building has been assessed by heritage conservation specialists.

## ATTACHMENT B

### VERANDAH

#### Existing Conditions

The Government House verandah extends around three sides of the building and is home to a number of potted specimens.

#### Species noted

geraniums in pots.

#### Recommendations

Frame the entry steps with potted plants of high visual interest ideally containing plantings that vary from those in the pots positioned between the columns.

Centrally place large pots of geraniums between the columns, alternate the plantings seasonally between bright red and white selections.

Ensure the pots are all the same size.

#### Maintenance

Remove all growth from steps and between verandah paving and walls.

### COURTYARD A

#### Existing Conditions

This small courtyard is visible from the hallway and from one of the sitting rooms. It currently holds a range of mixed pots and some furniture.

#### Species noted

orchids, *Crassula ovata* (jade plant) and cordylines.

#### Recommendations

Remove all the pots apart from a large one under each window with the top of the plant positioned slightly higher than window sill. Leave 4 smaller pots on the east wall of the courtyard opposite the sitting room windows.

Remove the *Alternanthera dentata* (ruby red) from the courtyard. All the other plants currently in the larger pots are performing well and will require a regular light trim to shape and seasonal fertiliser applications. The pots on the eastern wall could be filled with potted colour and regularly rotated.



Courtyard A

### COURTYARD B

#### Existing Conditions

This courtyard is an elongated space that drops down 4 steps and a slope to a cellar door. It is visible from a number of rooms and from the hallway door. The tall rear wall has a trellis supporting a climber (possibly – *Trachelospermum jasminoides*) the rest of the space supports a number of pots.

#### Species noted

*Trachelospermum jasminoides* / *Draceana*.

# ATTACHMENT B

## Recommendations

Retain the pot containing the *Trachelospermum jasminoides*, fertilise and mulch the pot and test the potential for planting white impatiens around the top of the pot. Retain the two large decorative pots at the top of the stairs and remove all the other pots. Plant the two large pots with the tall burgundy foliated *Draceana* currently in one of the pots under-plant with white impatiens at the base.

## COURTYARD AA

### Existing Conditions

Courtyard AA is the Kitchen Garden courtyard. Anecdotally this is a “hot” courtyard and given its proximity to the kitchen has been used to grow herbs and other plants with potential for use in the kitchen. The Courtyard contains a mix of planting both culinary and ornamental and a number of pot plants of different shapes and sizes.

### Species noted

climbing rose / lavender / purple *Tradescantia* sp. / paw paw (foundation lifter so may need removal) / *Tradescantia spathacea* (*Rhoeo discolor*) / *Nephrolepis* (fish bone fern) / rosemary / banana (*Musa* spp) / impatiens / a range of vegetables, herbs and spices

### Recommendations

Focus on the kitchen garden aspect of the space. Remove and / or move the ornamentals so that they are positioned either immediately around the well or on either side of the door at the western end of the courtyard (Plant cordylines (ti plant), on either side of the door – one is already in place).

Focus the vegetable and herb plantings on both sides of the central path, with the cooler climate selections on the northern side of the courtyard and more heat tolerant plantings on the south side.

Generally reduce the number of pots, consider reducing the overall number, particularly of the smaller pots by half. Retain the two large pots containing dwarf pomegranates.

The paw paw was referred to by one of the past Gardeners of the site as a potential foundation lifter. This planting will need to be regularly checked to ensure the plant is not out-growing its position.



Courtyard AA



# ATTACHMENT B

## COURTYARD BB

### Existing Conditions

This internal decorative courtyard currently has two beds to the east and west of a small formal pond and fountain. The bed to the east is a small 'rockery' with a mixed planting of succulents with *Tradescantia spathacea* and tricolour. The bed to the west is a pruned block of Lavender.

### Species noted:

Mixed succulent and *Tradescantia* rockery / lavender hedge / pond - water lily and papyrus / *Duranta* in pots - shaped to form / fernery inc. *Asplenium nidus cristaeifolium* (maiden hair fern, *Blechnum* sp. (in pot), holly fern and mixed indoor plants: jade plant, *Philodendron* cultivars. *Aspidistra*.

### Recommendations

Remove common species from rockery (i.e. geranium) and treat as a specialist succulent / *Tradescantia* collection. Maintain pond plantings as they are. Remove the lavender hedge (which is starting to age) and replace it with a second, similar rockery.

In the Fernery alcove - the potted *Aspidistra* is in a bad condition and should be removed.

Remove the common indoor plants from the fernery and replace with more ferns.



Courtyard BB

## GOVERNMENT HOUSE REAR ENTRANCE

### Existing Conditions

The rear entry plantings to Government House consist of four small (2m diameter) beds either side of the entry path. The plantings are mixed and lack structure and interest.

### Recommendations

Convert the six beds to two - 4 m long by 800 cm wide beds curving around the turning circle from each side of the rear entry path. Options for planting could be planting out with selected perennials or annuals or by simply developing the beds as two curved hedges.

Perennials could be planted as solid blocks in both beds. A perennial selection could be *Salvia leucantha* or other *Salvia* vars. if available. The annuals could be selected from the annuals list mentioned elsewhere in the report and regularly rotated. Hedge options could be *Duranta*, *Acalypha*, *Alternanthera*, dwarf *Murraya*, or *Ixora*. Select for green or red forms and use only one variety for both hedges.

## ATTACHMENT C

### MAINTENANCE REGIME

Maintenance Focus	Programmed Practices	Practical Actions	Performance Measures
Plant Management / Appearance	A weekly patrol of the beds with visual appearance as the sole focus. Prioritise visual improvements for the week.	Remove spent flower heads and dead or damaged leaves. Additional visual appearance focused work should be planned in the week prior to any Garden event.	<p>A monthly visual scan of the Garden demonstrates that all plants are free of dead and unsightly leaves and / or flowering stems.</p> <p>A pre-event check demonstrates that the plants are at their best prior to each event.</p>
Plant Management / Health	A bi-weekly patrol of the beds with plant health as the sole focus. Check for insect pests / fungal / and other problems including watering needs.	<p>Check growing tips and leaves (especially the undersides) for evidence of either insect or fungal activity. Target plants known to be susceptible to pests and diseases as potential indicator plants. Keep records of incursions or problems as they occur. Undertake curative or preventative action as required. Focus on effective organic controls where possible. Supplement with other measures as required.</p> <p>Remove any notably pest-prone plant from the planting program.</p>	A monthly inspection of the Garden demonstrates that all insect and fungal attacks are being managed with no visible signs of damage caused by pest or diseases.
Pruning practices / Shrubs	Undertake sequenced, timely pruning with a focus on maintaining flower production and/or foliage colour and keeping the plants within the designated height ranges.	<p>In the case of flowering plants (for example hibiscus) time the pruning to allow flowering length stem growth. Time the hard prune for hibiscus in early August. In the case of foliage plants (for example <i>Acalyphas</i>) prune to maximise fresh leaf colour. Keep good records of flowering times to help refine the ongoing pruning program.</p>	A monthly inspection demonstrates that all plants are within their prescribed heights in relation to the house and verandah and are performing at their optimum for flower and / or foliage colour.

## ATTACHMENT C

Maintenance Focus	Programmed Practices	Practical Actions	Performance Measures
Pruning practices / Hedges	Undertake timely pruning of hedges to maintain height (just below the picket fence) and ensure good foliage cover at all times.	Establish the best times to prune hedges – Generally, just after and/or just as a growth flush occurs. This process can be assisted by timely fertiliser applications (March-April / Sept.-October) Keep records to help establish the best times to prune.	A monthly inspection indicates that the hedge has a neatly trimmed appearance and solid foliage cover on all sides.  No bare twigs or branches are visible at any time.
Pruning and Cultural Practices / Perennials and groundcovers	Plan, plant and maintain perennials to maximise either flower and / or foliage colour.	Prune / trim / cut back Lift, divide, trim, reposition and replant perennials and groundcovers (day lilies, ornamental gingers, <i>Rhoeo</i> , other) as required. Most of these activities are best undertaken during the cooler months.	Monthly inspections indicate that perennials generally are performing as planned.
Cultural Practices / Bulbs	Plan, position, plant and maintain selected bulb species for maximum effect.	Position and Plant new bulbs like <i>Eucomis</i> , <i>Hippeastrum</i> , day lilies and <i>Alstroemeria</i> in March.  Plant calla lily, <i>Alstroemeria</i> , <i>Ranunculus</i> , for Spring display in May.  As well as providing seasonal colour all the above bulbs have potential both as cut flowers and potted colour.  Most of the bulbs above will benefit from the removal of spent and yellowing flower heads and leaves and should be inspected seasonally for pests.	Seasonal inspections indicate that the selected bulbs are growing and flowering at their best, are well sited in the Garden and are providing additional flowers for the House.

## ATTACHMENT C

Maintenance Focus	Programmed Practices	Practical Actions	Performance Measures
Cultural practices / Annuals	Plan, position, plant and maintain selected Annuals for additional colour as required. Time plantings in line with the Govt. House event calendar and major events.	<p>Select from – impatiens, bedding begonias, marigolds, snapdragons, petunias, <i>Lobelia</i>, pansies, <i>Coleus</i> and salvias.</p> <p>Start the planting cycle in October by removing all the spent flowering annual plantings. Prepare the soil before adding compost and / or manure or fertiliser, replant as required. Removing spent flowers from annuals can stimulate continued flowering.</p>	A monthly inspection indicates that the annual plantings are healthy, well-positioned and well-timed in relation to the event program and that spent annuals are removed in a timely manner.
Soil Health Practices Composting /	Establish and maintain a functioning compost heap. Most green material and chipped woody material can be composted. Composting is standard sustainable practice in a garden.	<p>Start heaps in April and turn them on a bi-monthly basis, manure lightly each time (whatever is available – poultry manure if possible) test and use after 3 or 4 turns. Lightly sprinkling lime over compost heaps on each rotation helps prevent them from becoming too acid.</p> <p>Layer your materials - (dry/ wet – woody/green). Use lawn clippings in thin layers (no more than 6cm deep) Apply compost to beds as available, prioritise beds that dry out. Lightly rake into the top 10cm of soil.</p> <p>Correct pH if required.</p>	<p>Bi-monthly inspections indicate that compost heaps are turned regularly and that the material is re-cycled through the Gardens.</p> <p>A check of compost applied to the beds reveals that the final material is not introducing weeds.</p>
Mulching / Fertiliser Applications.	<p>Develop sound soil management practices. pH test beds in March aim for a pH between 6.0 and 7.0.</p> <p>Practice regular mulching to reduce weed management and minimise soil moisture loss.</p>	<p>Apply mulch prior to the hotter weather periods Maintain mulch as a thin layer no more than 6cm / 8cm deep. Make sure mulch is kept away from direct contact with plant stems and trunks.</p> <p>Fertilise beds as required (March-April / September – October).</p>	A monthly check for general plant health and healthy leaf colour are good indicators of successful mulching and fertiliser programs.

## ATTACHMENT C

Maintenance Focus	Programmed Practices	Practical Actions	Performance Measures
Weed management / Garden beds	A weekly patrol of the beds with weed management as the sole focus. Set weed management priorities for the week.	<p>Weeding techniques: where possible make sure the roots of weeds with taproots or suckering root systems are 'chased' to ensure that no part of the root system remains in the ground. Where possible pull weeds out rather than hoe or spray to ensure minimum soil / mulch disturbance. Increase weed patrols immediately after using compost, lightly hoe emerging seedling weeds as required.</p> <p>Self-sown seedling garden plants must be removed when first noticed.</p>	<p>A monthly check indicates:</p> <ul style="list-style-type: none"> <li>• no visible seedling regeneration;</li> <li>• suckering plants are controlled;</li> <li>• target Weeds are controlled; and</li> <li>• seedling gardens plants have been removed (eg. <i>Kentia</i>).</li> </ul>
Cultural Practices and Weed Management / Lawns (including Edging)	<p>A bi-weekly check of lawn and bed edges to set trimming priorities.</p> <p>A monthly check of lawns with visual quality and plant health as a focus.</p> <p>A monthly patrol of the lawns with weed management as the sole focus.</p>	<p>Trim lawn and bed edges as required.</p> <p>Aerate lawns and feed lightly (late March).</p> <p>Feed lawns and mow as high as possible (while maintaining a reasonable lawn surface) from early May for natural control of Winter Grass and Bindii – return to a finer cut in late August / Sept.</p> <p>In June spray lawn for broad leaved weeds (alternatively sprinkle broad leaved lawn weeds with a mix of equal parts powdered sulphate of ammonia, iron sulphate and sand).</p> <p>In December feed lawns with blood and bone. This will help to compost any thatch.</p>	<p>A monthly check indicates well-trimmed lawn / bed edges.</p> <p>A bi-monthly check indicates a well-maintained, healthy, weed-free lawn.</p>



## ATTACHMENT C

Maintenance Focus	Programmed Practices	Practical Actions	Performance Measures
Weed Management / Paths, Patios Building Surfaces	A monthly patrol of all paved areas, roadways and building surfaces with weed management as the sole focus.	Maintain all paved areas, the patio, the verandah and steps and the steps to the cellar to be weed-free at all times.	A bi-monthly check indicates that all paved and built surfaces are weed-free.
Irrigation Management	Based on weather conditions – undertake regular checks to ensure the Garden and lawns are well-watered.	Watering practices must be based around the islands rainfall patterns. Regular deep watering should be practiced during the dry periods.	Monthly checks indicate healthy plants and lawns without dry patches.
Grounds Management / Trees	Develop practices to ensure the root zones of the Norfolk Island Pines and other trees in the grounds are not impacted by scalping injury caused by mowers.	Use the mulch created by the Norfolk Island Pines to create a root protection zone immediately under the canopy zone of trees closest to the house. This edge can be defined initially by spraying the shape of the canopy edge with herbicide to create an easily mown shape in which to spread the pine mulch. Further away from the house create formed zones under the trees by significantly increasing the mowing height under tree canopies.	A bi-monthly check indicates no root damage (scalping) caused by the mowing regime and that the edges are well-defined.

Note: While the recommended Programmed Activities are prescriptive, the process of closely assessing one aspect of the Gardens maintenance at a time will provide the Gardener with a basic but focused approach. This will help to ensure quality across all aspects of Government House Gardens maintenance. This degree of focus is hard to achieve within the distractions of day-to-day maintenance when critical aspects of the maintenance process can be easily overlooked.

## ATTACHMENT D

### NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Kalanchoe spp.*

**Common Name:**

mother-of thousands

**Location in Garden:**

Bed 13.

**Maintenance:**

Spreads by suckering and the formation of new plants on its leaves.  
Manage by careful removal and hot composting of all plant parts as it has the capacity to reproduce from most portions of its stems and leaves.

**Reference Images:**



## ATTACHMENT D

### NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Alternanthera dentata*

**Common Name:**

little ruby

**Location in Garden:**

Outside the Gardeners Cottage, in one of the Courtyards, in the animal pens area, and in the central section of Bed 13 (see image below).

**Maintenance:**

An attractive garden plant grown for its purple/maroon foliage. It does, however, have the potential to become a significant problem through its capacity to sucker and spread by seed. From a maintenance rational garden approach and a NI ecological point of view, it is best removed, with regular follow up to ensure it does not reappear.

**Reference Image:**



## ATTACHMENT D

### NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Anredera cordifolia*

**Common Name:**

Madeira vine

**Location in Garden:**

Bed 2 (images left and right top row)

**Maintenance:**

Reproduces through underground tubers and via bulbils formed on the stems. It will require a very rigorous approach to the removal of every underground tuber, repeated as necessary to guarantee its complete eradication. From a maintenance rationale garden approach and a NI ecological point of view, it is best removed immediately.

**Reference Images:**





## ATTACHMENT D

### NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Sansevieria trifasciata*

**Common Name:**

mother-in-law's tongue / snake plant

**Location in Garden:**

Bed 10

**Maintenance:**

This species was consciously planted in the formal garden (photo below) but has proven to be excessively rampant and should be removed to reduce maintenance requirements. It is not likely to self-reintroduce.

**Reference Images:**



## NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Asphodelus fistulosus*

**Common Name:**

onion weed

**Location in Garden:**

Beds 1 and 2 and Bed 10 most notably.

**Maintenance:**

Onion Weed is a prolific seed producer with seeds that can remain viable in the soil for many years. It can reshoot from bulbils and root fragments spread by cultivation. Eradication requires constant follow up to effectively control.

Onion Weed can be controlled by covering the infestation under a black plastic mulch for an extended period in hot sunny weather. Alternatively, it can be controlled using glysophate painted directly on each plant (particularly effective on small outbreaks amongst other plants).

**Reference Images:**





## ATTACHMENT D

### NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Howea forsteriana*

**Common Name:**

*Kentia* palms

**Location in Garden:**

Bed 4 (where it is a weed). Bed 13 where it is appropriate as part of the rainforest theme there.

**Maintenance:**

The seedlings are essentially plants out of place and should simply be removed when noticed.

**Reference Images:**



## NORFOLK ISLAND GOVERNMENT HOUSE – MAJOR WEED LIST:

**LATIN NAME:** *Lagunaria pattersonii*

**Common Name:**

native white oak

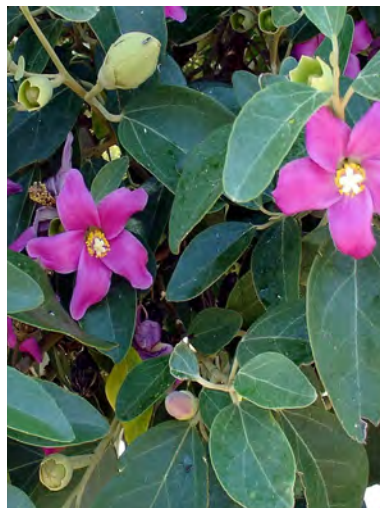
**Location in Garden:**

Parklands under pines.

**Maintenance:**

Seedlings are essentially plants out of place and should simply be removed when noticed.

**Reference Images:**



inspiring place



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