

PLAN OF MANAGEMENT

PART B

SECTION SIXTEEN



KINGSTON RECREATION RESERVE



2003



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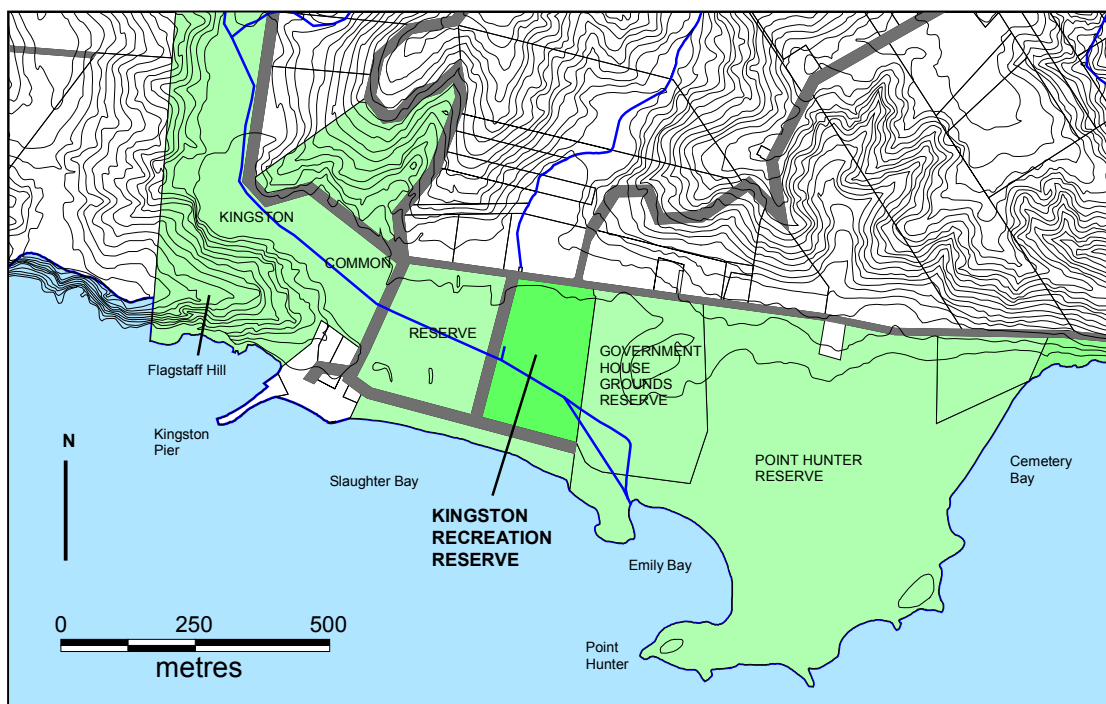
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Section 16: KINGSTON RECREATION RESERVE PLAN OF MANAGEMENT PART B

16.1 Introduction

This Part B Plan of Management applies to Kingston Recreation Reserve.

Kingston Recreation Reserve is located within the Kingston and Arthur's Vale Historic Area on the southern coast of Norfolk Island and has an area of 4.57 hectares (Map 1). The reserve contains significant structures and remains from the Second convict Settlement, in particular No.11 Quality Row and the foundations of the convict Lumber Yard. Cricket has been played in the reserve virtually continuously since the late 1800's and is still an important recreational activity in the reserve.



Map 1: Location of Kingston Recreation Reserve

Kingston Recreation Reserve was proclaimed a public reserve under the *Commons and Public Reserves Act 1936* for recreation purposes on 17 October 1940.

16.1.1 Previous Plans

This is the first plan of management for Kingston Recreation Reserve.

16.1.2 Register of the National Estate

Kingston Recreation Reserve was listed on the Register of the National Estate on 21 October 1980.

16.1.3 Kingston and Arthur's Vale Historic Area (KAVHA)

The Kingston and Arthur's Vale Historic Area was established in 1980 when it was entered in the Register of the National Estate. The KAVHA was officially established by agreement between the governments of Norfolk Island and Commonwealth of Australia in 1989¹. The agreement established a board to coordinate funding and recommend management policies to ensure the conservation and restoration of the heritage fabric in the Kingston area. The KAVHA Board has played an invaluable role in conserving Kingston as a living monument.

The Kingston and Arthur's Vale Historic Area Conservation Management Plan (CMP), agreed to by the KAVHA Board and the Legislative Assembly of Norfolk Island in 1988, is the guiding document for heritage preservation, conservation, and management of Kingston Recreation Reserve.

Adoption of any part of the CMP into these Plans of Management shall be in accordance with section 16 of the *Public Reserves Act 1997*, but shall in each case be subject to public consultation in accordance with section 11 of the Act.

The CMP(1988) contains descriptions of the heritage fabric in KAVHA. The *Landscape Management and Conservation Plan*² provides detailed descriptions of the landscape and scenery of the reserve and provides some guidance on the conservation and management of Kingston Recreation Reserve.

Where there is any inconsistency between the intent of this plan of management and the intent of the approved KHAVVA CMP, the intent of the approved KAVHA CMP shall prevail.

16.1.4 Burra Charter

Kingston Recreation Reserve has considerable cultural significance. The Australia ICOMOS Burra Charter, 1999³ is a guiding document for conserving and managing places of cultural significance. Where applicable, the principles of the Burra Charter will guide management philosophies for Kingston Recreation Reserve.

16.1.5 IUCN Category

Kingston Recreation Reserve does not fit any IUCN Category⁴.

16.2 Conservation Significance⁵

Kingston Recreation Reserve is located in the centre of the Kingston and Arthurs Vale Historic Area. The Roman Catholic Clergyman's Quarters (now No. 11 Quality Row) is an outstanding example of a Georgian bungalow. The playing field, which comprises the bulk of the Reserve, is one of the oldest in Australia and the Lumber Yard was at the centre of convict life during the Second Settlement.

Construction of the channel that drains Watermill Creek and Town Creek into Emily Bay commenced in 1789 and is the oldest remaining example of such works in Australia. The freshwater wetland habitat that has developed along the lower stretches of the drainage channel and adjacent Common reflects the swamp that originally occurred throughout the low-lying areas at Kingston and provides shelter for small numbers of migratory waders and breeding habitat for swampheens. This habitat is uncommon on the Island.

¹ Memorandum of Understanding between Norfolk Island and Commonwealth governments: 1989, revised 1994.

² Tropman and Tropman, *Landscape Management and Conservation Plan*, 1994.

³ The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 1999.

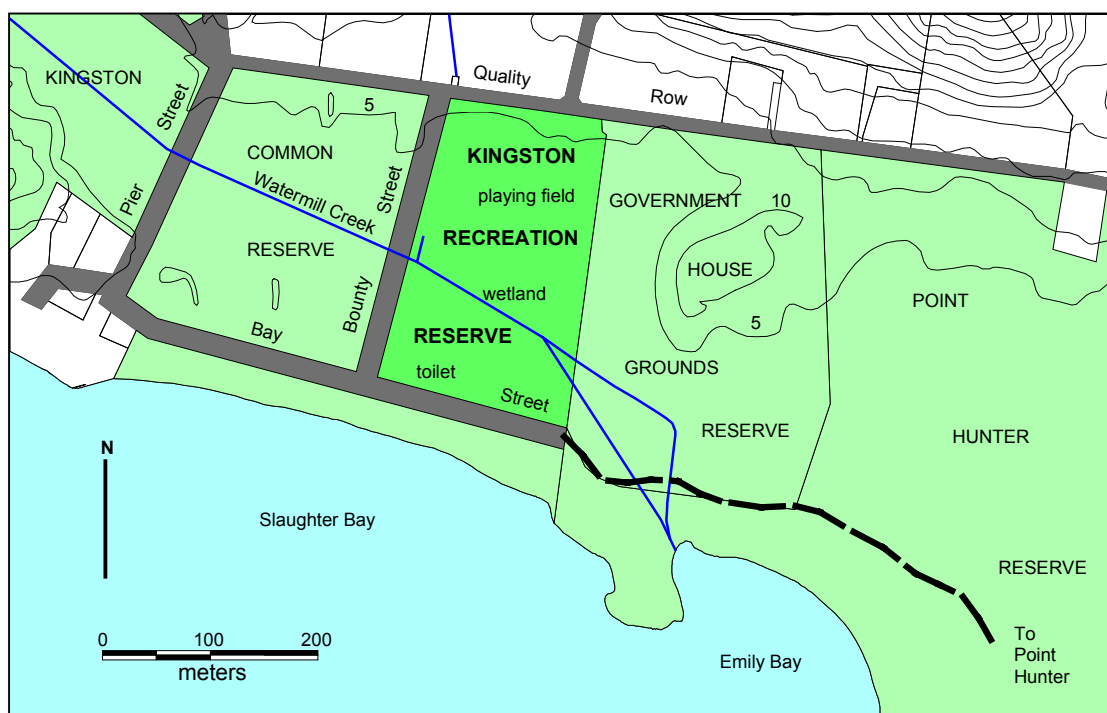
⁴ International Union for the Conservation of Nature.

⁵ A Statement of Significance may be found in the CMP and the RNE Place Report.

16.3 Description

16.3.1 Geology and Landform

The coastline at Kingston has advanced and retreated with each ice age. During the last ice age sea level was as much as 109m (almost 360ft) lower than present. As sea levels rose about 15,000 years ago, advancing coastal sand dunes prevented the Watermill and Town Creek catchments from draining directly into the sea. An extensive coastal swamp or swamps formed behind those advancing dunes, as evidenced by the peaty layer containing large Norfolk Island pine logs, branches and other plant material beneath both Cemetery Beach and Slaughter Bay beach⁶. By about 6,000 years ago, some of that coastal swamp had been overrun by the advancing sand dunes that now form the reefs and rocky coastal aeolianitic outcrops at Kingston. Subsequently, much of the area between Emily Bay and Cemetery Beach was covered by sand dunes.



Map 2: Landform and features of Kingston Recreation Reserve

Prior to European settlement, Town Creek⁷ originally flowed directly into the swamp at the foot of the coastal hills, where it joined the waters from Watermill Creek. The swamp had no direct outlet to the sea and was contained by a calcarenite ridge that ran from the knoll on which Government House is sited, through Chimney Hill and along the Slaughter Bay foreshore.

When Lieutenant Phillip Gidley King arrived in 1788, the swamp was heavily vegetated. It is likely that during periods of high rainfall, the area now known as 'Kingston Common' would have become a

⁶ Two of the logs have been dated: $6,870 \pm 230$ years BP and $4,400 \pm 90$ years BP: in Rich, P., G van Tets, K. Orth, C. Meredith and P. Davidson. 1983. *Prehistory of the Norfolk Island Biota*. In "A Review of Norfolk Island Birds: Past and Present" R. Schodde *et al.* Australian National Parks and Wildlife Service Special Publication No.8, 1983.

⁷ The Town Creek catchment (about 125ha) and Watermill Creek catchment together form the second largest catchment on Norfolk Island after Cascade Creek.

small lake. In 1789, King ordered that a drain be constructed to enable Watermill and Town Creeks to flow into the western end of Emily Bay, making much of the Common arable land⁸.

The reserve is relatively flat, gently sloping from about 6m above sea level along Quality Row to the Watermill Creek channel. The playing field, which comprises about half of the reserve's area, was levelled by removing soil along the northern and north-western sides of the field and placing fill towards the channel. Shallow ponds form after rain on the area between the playing field and Watermill Creek channel close to Bligh Street. A swamp has also formed along the channel and on the low lying land adjacent to the channel between Bligh and Bounty Streets.

To the south of Watermill Creek channel and adjacent low lying areas, the land rises to the remains of the calcarenite ridge that parallels the Slaughter Bay foreshore and along which Bay Street runs.

16.3.2 Vegetation

The original native vegetation that would have covered the swamp is not well documented. On 27 April 1788, King discovered "...a great quantity of plantane trees⁹ which grow close to the stream of Fresh Water which runs through the Valley which is in this part of it dry & not swampy as it is opposite the hill on which the Settlement is, & below it...". That month, some of the timber on Flagstaff Hill was cleared, as was the 'thick wood' surrounding the settlement itself.

It is likely that the wetter parts of the swamp were vegetated with sedges and rushes, with fringing Melky Tree, Tree Fern, Birdcatcher, Coastal Coprosma, Norfolk Island Hibiscus and perhaps Mountain Rush. White Oak and Norfolk Island Pines do not thrive in swampy conditions and do not survive extended inundation. It is likely that these species were restricted to the higher parts of the coastal dunes and outcrops, and the foothills to the north, along with native hardwoods such as Ironwood, Maple, and Beech. The dunes may have been vegetated with Native Flax and Moo-oo, especially close to the edge of the swamp, and by native coastal herbaceous plants such as Mile-a-Minute, Coastal Native Spinach, Pigface, and Strand Morning Glory.

It would appear that most of the original native vegetation along the foreshore and in the former swamp and surrounding low land within the area that is now Kingston Recreation Reserve was cleared during the First Settlement. The forested hillsides were also largely cleared of mature pines and other trees.

Today, the vegetation within the reserve is dominated by mown kikuyu grass. A row of six Norfolk Island pines was planted along Quality Row in on 8 September 1961. These pines are located within the playing field fence.

The drainage channel constructed in 1789 runs roughly north-west to south-east through the southern third of the reserve. Drain Flags, the tall native River Club Rush¹⁰ and some Taro are the dominant emergent aquatic plants along the channels. Water Hyacinth covers much of the remaining water surface. The low-lying land adjacent to the channel is frequently inundated, creating areas of reed, small pools and mudflats. The grass surrounding the wetland is kept closely mown.

To the south of the wetland, the ground rises to Bay Street which runs along the low calcarenite ridge that forms the shore of Slaughter Bay. On 4 September 1951, members of the Country Women's' Association planted a small grove of Norfolk Island Pines between the Watermill Creek channel and

⁸ *The Swamp Creek and Serpentine Area Conservation Study and Interpretive Design*. Report prepared for Australian Construction Services on behalf of the KAVHA Management Board.

⁹ Banana.

¹⁰ River Club Rush *Schoenoplectus validus* is an important plant for weaving and is also considered useful for the biological treatment of waste water. (Metcalf, L., 1998. *The Cultivation of New Zealand Grasses*. Godwit. p80).

Bay Street to celebrate the Association's Silver Jubilee on the Island¹¹. A few small White Oak have established under this pine grove. A row of five Pohutukawa were planted parallel to Bay Street near the bathers change shed on 26 August 1978 to commemorate the 50th anniversary of the Scouts and Guides on Norfolk Island.

16.3.2.1 Significant Species

There are no significant native plant species in the reserve.

16.3.2.2 Weeds

Kingston Recreation Reserve is free of woody weeds. Water Hyacinth¹² grows densely on the surface of Watermill Dam, drainage channels and on the ponded areas adjacent to Watermill Creek. In addition, Castor Oil Plant seeds are washed downstream during floods and occasionally germinate in the reserve.

16.3.3 Fauna

16.3.3.1 Freshwater aquatic ecosystems

Watermill Creek is an important habitat for native wetland flora and fauna¹³. Unfortunately very little is known or recorded about Norfolk Island's native freshwater ecosystems prior to the significant changes brought by European settlement.

The Short-finned Eel, Long-finned Eel and both species of freshwater shrimp have been observed in the Watermill creek system. However, little is known of other native freshwater invertebrates and fish in Watermill Creek.

Introduced Mosquito fish (probably the eastern mosquito fish *Gambusia holbrooki*) (also known as *Gambusia*, Plague Minnow) which are native to south-eastern USA, are common in Watermill Creek and other drainage channels. Originally introduced to the Sydney Botanic Gardens in 1925¹⁴ and New Zealand in the 1930's, this species was subsequently introduced to Norfolk Island.

16.3.3.2 Land Snails

Norfolk Island has a diverse land snail fauna, with a number of endemic species¹⁵. The range of many species has declined with the clearing of native forest, predation by introduced rats, and perhaps competition with introduced snails. Many species have become extinct since 1788, but there is also evidence in the fossil layer at Kingston of prehistoric extinctions¹⁶.

¹¹ Personal communication: Dawn Chapman, member Norfolk Island Country Women's Association.

¹² Water Hyacinth is thought to have been brought to Norfolk Island by Dr Metcalfe in the early 1900's (Arthur Evans, personal communication). At that time it was a popular ornamental plant, although there was some effort to publicise the dangers of spreading this South American import. Water Hyacinth was declared a noxious weed on Norfolk Island on 5 July 1988.

¹³ *Flora of Australia* Volume 49, Oceanic Islands 1, AGPS, Canberra (1994); Schodde, R., P. Fullagar and N. Hermes, 1983, *A Review of Norfolk Island Birds: Past and Present*. Australian National Parks and Wildlife Service: Special Publication No. 8; Turner, J.S., C.N. Smithers and R.D. Hoogland, 1968, *The Conservation of Norfolk Island*. Australian Conservation Foundation Inc., Special Publication No. 1.

¹⁴ NSW National Parks and Wildlife Service (2002). Predation by *Gambusia holbrooki* – The Plague Minnow. Draft Threat Abatement Plan. NPWS. Hurstville, NSW.

¹⁵ Dr Robert Varman has listed a total of about 79 species of endemic or native land snails on Norfolk and Phillip islands, including species found only in prehistoric fossil deposits: Varman R.V.J.P. *Norfolk Island Snail List*. www.geocities.com/Paris/LeftBank/6559/scc38.htm

¹⁶ Varman, R.V.J.P., (undated), Conchological Study of Norfolk Island Terrestrial Mollusca from Fossiliferous and Live Populations. Unedited draft posted on the Internet at www.geocities.com/Paris/LeftBank/6559/scc38.htm

Different land snails have very specific habitat requirements. They are therefore excellent indicators of changes in the environment and a valuable tool for palaeontology and archaeology. Varman found “many specimens of shells from a range of indigenous snail species” in a “rich loamy calcareous sandy soil” underlying early First Settlement construction deposits. The diversity of the land snail fauna at Kingston has declined significantly since 1788. In 1997, Varman found 9 species of land snail at Kingston. One un-named species was listed as “a very rare live population at Kingston only confined to a rocky outcrop”. The highly modified, open nature of the reserve, together with regular mowing, is unlikely to support any significant land snail populations.

16.3.3.3 Seabirds

There is no suitable seabird breeding habitat in the reserve.

16.3.3.4 Terrestrial birds

There are three habitats in the reserve: medium-sized Norfolk Island Pines; mown playing field and other grassed areas; and stream channels and associated wetland.

The open grassland and planted pines generally favour introduced species such as Australian Kestrel, Crimson Rosella, Common Starling, European Goldfinch and House Sparrow. The open grassland and wetland are also habitat for introduced species such as the Mallard, Feral Fowl and Domestic Goose. Between September and May the playing field is a high tide roosting and feeding area for flocks of Pacific Golden Plover, Bar-tailed Godwit and Ruddy Turnstone. Sacred Kingfisher also regularly occur in the reserve.

However, the wetland along the channel and the nearby open manicured grassland, especially where it is subject to inundation, provide habitat for a variety of native birds, some of which are likely to have been uncommon prior to European settlement when these habitats did not exist on Norfolk Island. Tarler Bird and White-faced Heron commonly feed on the short grass, especially close to the wetland and the Watermill Creek channel. The wetland in the reserve is probably the most important breeding habitat for the Tarler Bird on Norfolk Island.

The wetland at Kingston, particularly the relatively extensive reed beds, adjacent ponds and inundated grass in Kingston Recreation Reserve, provide an important refuge for small numbers of vagrant and or migratory birds, including: Little Black Cormorant, Cattle Egret (maximum 14), White Ibis (1), Royal Spoonbill (1), Yellow-billed Spoonbill (1), Curlew Sandpiper (maximum 4), Sharp-tailed Sandpiper (maximum 20), Pectoral Sandpiper (maximum 3), Terek Sandpiper (maximum 7), Red Knot (1), Bar-tailed Godwit, Whimbrel, Red-necked Stint (maximum 4), Pacific Golden Plover, Ruddy Turnstone, Masked Lapwing and Silver Gull (maximum 3)¹⁷.

16.3.4 Cultural Heritage

The bananas found by King along the stream running through Arthur’s Vale were clear evidence of previous Polynesian visits or habitation. Stone tools found in various parts of the Island also provided evidence that Polynesian peoples at least regularly visited the island. The discovery of the remains of a Polynesian settlement under the dunes at the western end of Emily Bay in 1997 confirmed that the Island was occupied for about 700 years from perhaps as early as 750AD¹⁸. However, by 1788 there was no evidence of the Polynesian village at Emily Bay.

Following the arrival of King and his party in 1788, buildings were established on the slope from the landing area (now the Kingston Pier) and on the low ridge of sand dunes and calcarenite outcrops

¹⁷ Observations by P. Davidson: October 1991 – August 2002.

¹⁸ Anderson, A., (undated), *Prehistoric Human Colonisation of Norfolk Island*. First Interim Report to Australian Heritage Commission. Unpublished report, Division of Archaeology and Natural History, Research School of Pacific Studies, Australian National University.

along the foreshore to the eastern end of Slaughter Bay and Chimney Hill. In April 1788, a flagstaff was erected on Mt George (later Flagstaff Hill) to signal ships, and in May, a road was cut to Cascade. In October that year, a track was cut to Anson Bay.

To drain the swampy ground in the vicinity of the settlement, a six foot deep channel 330 yards long was dug through Arthurs Vale and a second channel was cut in March 1789 from the eastern margin of the swamp through a low saddle on the northern side of Chimney Hill to Emily Bay.

The former swampland was turned to agriculture to support the fledgling colony. In 1814, twenty-six years after King's arrival, the colony was abandoned and all of the First Settlement buildings were destroyed. All livestock were removed or destroyed, but dogs were left to "get ravenous and eat any of the pigs that were left": Lieutenant Thomas Crane RN.

In 1825, the Second Settlement was established at Kingston and the roads to Cascade and Ball Bay were re-cut. During the decade that Norfolk Island had been unoccupied, the channel into Emily Bay had become blocked and the Common had returned to swamp. In 1829, the channel that had been cut in 1789 to drain the swamp around the northern end of Chimney Hill to Emily bay was re-opened. The swampy ground was converted to prisoners' gardens and in 1832, the garrison was moved into newly completed barracks on Quality Row^{19,20}.

On 8 May 1834, flooding caused part of the drain to Emily Bay to collapse. Repairs were carried out with difficulty and the Commandant, Major Joseph Anderson²¹, took the opportunity to construct a Serpentine channel to the north of the 1789 channel, which was filled in, and develop an 'Arcadian' landscape of curvilinear paths, hedges and gardens over the whole area that now comprises Kingston Recreation Reserve²². In the first months of 1835, Anderson had a new section of channel constructed through a tunnel driven under Chimney Hill and the old channel to the north of the hill closed. Quarrying at Chimney Hill ceased and new bridges were constructed on Bligh Street and on Government House drive from Slaughter Bay. The bridge on Government House drive included a sluice gate for regulating the level of water in the drain and landscaped channels upstream.

The former course of the Town Creek channel, which ran south-east across the middle of the area between Bounty and Bligh streets, was replaced by a stone-lined sub-surface drain along the eastern side of Bounty Street from the "Officer Bath" on the northern side of Quality Row. This new drain fed a long tank with a pump that was constructed by Anderson at the junction with Swamp Creek to supply water to work parties and perhaps to provide water for the landscaped gardens. During the 1840's, a small weatherboard house was constructed just north of this tank and pump.

Referred to at the time as the "Parterre" or "The Boulevards", Anderson's landscape used water features, the quarried face of Chimney Hill, the tunnel through Chimney Hill and a "profusion of labyrinthine walks and gardens" to "recreate nature rather than restore it"²³. Created as a recreational area for the free members of Norfolk Island society, Anderson's landscaped gardens and Serpentine channel were an "important example of nineteenth century 'gardenesque' design on a large scale" CMP(1988). The gardens and paths have long since gone and the Serpentine channel west of Bligh Street is hardly visible today.

¹⁹ The "Old Military Barracks": now the Norfolk Island Legislative Assembly building and court.

²⁰ Quality Row is shown as 'Military Road' on the *Plan of the Settlement, Norfolk Island 1848*.

²¹ Major Joseph Anderson arrived on the Island in April 1834 with his wife and six children.

²² Except for the Lumber Yard in the south-western corner: *Plan of Settlement, Norfolk Island 1838*. In *The Swamp Creek and Serpentine Area Conservation Study and Interpretive Design*. (Figure 4). Report prepared for Australian Construction Services on behalf of the KAVHA Management Board.

²³ *The Swamp Creek and Serpentine Area Conservation Study and Interpretive Design*. Report prepared for Australian Construction Services on behalf of the KAVHA Management Board.

Convict gardeners maintained the flower garden and hedges until Anderson's successor, Major Thomas Bunbury, took command in April 1839. Bunbury disliked the Parterre and the Serpentine, which he described as a sewer that meandered "fetidly" through the gardens. By 1844, the Parterre gardens and paths had been removed²⁴. Late in 1847, a new straight channel was dug directly from the Bounty Street bridge to the Chimney Hill tunnel, to the south of the course of the 1789 channel. By 1846, the area to the south of the Serpentine appears to have been used for prisoners' gardens. The Serpentine survived as a channel or ditch into the 1850's and was substantially visible after 1900. Subsequent sedimentation and deliberate filling has erased almost all trace of Anderson's Serpentine.

Bunbury had expressed the view in March 1839 that Anderson's Parterre should be used for athletic pursuits such as cricket and football. It appears that the area to the north of the Serpentine was developed as a playing field after the removal of the Parterre. There is some legitimacy in the claim that the Kingston Recreation Reserve playing field has the longest history of continuous use of any playing field in Australia.

Second Settlement structures in Kingston Recreational Reserve that are of particular cultural heritage significance are the Lumber Yard/Prisoners' Mess and the Roman Catholic Clergyman's residence (No. 11 Quality Row). The Lumber Yard was built in 1833-1834²⁵ and has since been demolished, with only the saw pit, stone foundations and a stone step remaining.

The Lumber Yard was originally constructed as a mill and timber workshop to replace the inadequate Carpenters' Shop. Soon after completion, a stone wall was constructed to enable the eastern part to be used as the Prisoners' Mess. The western part became the Lumber Yard, most of it roofed to cover the 30m long sawpit, the remains of which are still visible today. In the Prisoners' Mess two large mess sheds attached to the north and east walls enabled up to 600 prisoners to eat under cover. The cook-house, a constable's room, gatekeepers' lodge, overseers' mess, store, privies and entrance were on the southern side of the mess yard. Prisoners were allowed to spend their "leisure" time in the Prisoners' Mess. As a consequence, the overseers could not exert authority and the mess was "notoriously squalid"²⁶. The Lumber Yard was the site of one of the most ferocious convict uprisings in the Island's history. Led by William "Jacky Jacky" Westwood, the 1846 mutiny saw the death of one overseer, two constables, and one sub-constable. As a result, thirteen convicts were hanged.

Number 11 Quality Row was built during the command of Lieutenant Colonel J.T. Morisset (1829 - 1834), and was the first of the Quality Row buildings to be constructed (c1831-1832). The house was originally intended for the Protestant Clergyman; however, when he moved to another house the Catholic Priest was given No.11 to reside in and it became known as the Roman Catholic Clergyman's Quarters.

From 8 June 1856, the Pitcairner families resided in the Georgian houses along Military Row and other buildings in Kingston. One Pitcairner family resided at Kingston continuously until 1930²⁷. The Pitcairner families worked and played in the Kingston area, attended school in the New Military Barracks and worshipped in All Saints Church²⁸. Buildings at Kingston were also used to billet troops during WWII. No. 11 Quality Row has been used as a doctor's home and surgery, schoolmaster's residence, and administrative offices. The Health and Buildings section of the Administration of Norfolk Island and the KAVHA Board Secretariat office currently share the former clergyman's residence.

²⁴ As part of the works program of Captain Alexander Maconochie, Commandant 1840 – 1844.

²⁵ Smith, N. (1997), *Convict Kingston - A Guide*. Photopress International, Norfolk Island.

²⁶ Kingston and Arthur's Vale Historic Area Management Plan. April 1980. Department of Home Affairs and Environment. Australian Government Publishing Service, Canberra. 1981. p120.

²⁷ The 74 years of continuous residential use of Kingston by Pitcairner families is significantly longer than the first two convict settlements, each of which spanned 26 years.

²⁸ Formerly the Commissariat Store.

In May 1936, one of the biggest floods recorded on Norfolk Island inundated the Common, damaging bridges and other structures. In the following years, a new channel was dug from upstream of Bligh Street directly to the eastern end of Emily Bay.

Many of the homes constructed in other parts of the Island during the late 1800's and early 1900's incorporated stone from Second Settlement structures at Kingston. The Commonwealth encouraged this practice and the Administrator was still selling rights to remove stone from buildings and ruins at Kingston as recently as the late 1960's. Stone rubble may also have been burned in the Lime Kiln²⁹, which was still being used to produce lime until the 1940's.

In 1974, the reserve was the venue for the welcoming ceremony for the visit of Her Majesty Queen Elizabeth II and in 2001 it was used for the opening and closing ceremonies of the 2001 South Pacific Mini Games. The playing field was levelled and re-grassed in the late 1970's.

Stock have been excluded from the playing field area since the late 1960's. However, stock were not excluded from the reserve south of Watermill Creek channel until the 1980's, when fences were erected and cattle grids installed in Pier and Bounty streets.

²⁹ Point Hunter Reserve.

16.4 Issues

16.4.1 Public Use

The reserve contains the Island's primary public sports field. Touch football and junior rugby league are played in winter and cricket in the summer. The traditional Pitcairners versus 'Allcomers' cricket match is played on Bounty Day (8 June). The playing field is also used on school cross-country days.

Occasional other public uses of the playing field include, model aircraft flying, kite flying, picnicking, and community functions or celebrations such as the opening and closing ceremonies for the 2001 South Pacific Mini Games. The playing field has also occasionally been used as an overflow public parking area for large community events held in the Prisoners Compound.

The sub-surface drain that runs under the reserve from the "Officers Bath" to just north of the Bounty Street bridge is occasionally used by the Norfolk Island Emergency Service for rescue training.

The wetland has become an important bird watching area for locals and visitors, as well as a valuable field study resource for science and geography students at the Norfolk Island Central School. Students have been involved in a number of projects that have provided important management information, including water quality monitoring and 'Streamwatch' monitoring. Wetland reeds provide traditional craft materials.

The area between the wetland and Bay Street is mainly used for walking, picnicking and kite flying. The area to the east of the Lumber Yard/Prisoners' Mess is also the preferred site for discharging fireworks during community celebrations such as New Year.

No.11 Quality Row is used for administrative offices. The former kitchen/staff quarters annexe at No.11 provides public toilets and sports changing and storerooms.

Occasionally, there is inappropriate use of vehicles on the playing field and more frequently inappropriate vehicle use on the open space between the wetland and Bay Street. This activity damages the grass and detracts from the visual amenity of the Kingston area.

16.4.2 Commercial Use

For some years, the Norfolk Island Girl Guides operated a small mobile catering van on behalf of the Norfolk Island Junior Rugby League during Sunday junior league matches. That van is no longer serviceable and a commercial operator has applied for a permit to sell food and drink at the playing field.

On Bounty Day during recent years, one commercial tour operator has provided a picnic lunch on the Prisoners' Mess site near the Bay Street public toilets.

16.4.3 Access and Facilities

Access to the reserve is via Quality Row, Bounty Street and Bay Street. Stock are excluded from the reserve by a post and rail fence along Quality Row and Bounty Streets. Vehicle access to the playing field area is provided from Quality Row and Bounty Streets by cattle grid entrances.

Vehicles are not physically restricted from driving onto the playing field, however most people drive and park around the sides of the playing field, especially on the northern side. The Bounty Street entrance is usually closed and the Quality Row entrance is periodically blocked off to allow grass damaged by vehicle traffic to regenerate. There are no specified vehicle parking areas in the reserve.

As a consequence, the grass cover in the vicinity of the row of Pohutukawa near the Bay Street public toilets becomes worn.

During large gatherings, such as the opening and closing ceremonies for the 2001 South Pacific Mini Games, sections of playing field fence near the Quality Row/Bounty Street intersection are removed to improve pedestrian access.

A low single rail timber barrier along the eastern boundary of the reserve separates the playing field from Government House Grounds Reserve. Members of the public frequently walk into the southern section of Government House Grounds Reserve when walking between the playing field and the western end of Emily Bay. The channel and barrier posts at the Bligh Street bridges prevent vehicle access from Bay Street into this area.

In the 1970's, a weatherboard public dressing shed was constructed on the site of the former Prisoners' Mess near Bay Street. In 2001, this dressing shed was converted to public toilets (6 female and 4 male) and a concrete wastewater holding tank was installed near the north-eastern corner of the Prisoners Mess yard.

The KAVHA Restoration Team maintains the playing field and other grass areas in the reserve, No.11 Quality Row, and the Bay Street public toilets.

16.4.4 Heritage Conservation

The use of Kingston for government administration and public recreation is an important feature of Norfolk Island. The Island's cultural heritage is strengthened by continuing these uses at Kingston, as is the conservation of heritage structures and places, including those of the Second Settlement.

No. 11 Quality Row, the Lumber Yard/Prisoners Mess and the Serpentine wetland area are among the most important Second Settlement structures on Norfolk Island. The playing field has been virtually in continual use since the early 1840's and may be oldest playing field in Australia.

16.4.4.1 No.11 Quality Row

No.11 Quality Row is a beautifully restored example of fine Georgian 'bungalow style' architecture. Its continued use for administrative offices and for recreation activities, including use of the amenities at the rear of this building for sporting events, is important to the Island community.

16.4.4.2 Bridges and Channels

There is concern that some of the Second Settlement stone bridges and channel walls in the Kingston area (particularly the Bounty St bridge) may be adversely affected by high water levels resulting from placing weirs to create a wetland.

Both Bounty and Pier Street bridges have been constructed on reclaimed swamp. While the channel that was dug through the former swamp is relatively deep, the water table would rarely have been below the footings of the bridges and it is likely that the bridges have been sinking since they were constructed. Even with regular cleaning out of the channel(s), the Common is periodically inundated. The channel(s) have been dammed or blocked a number of times during the past 170 years, raising the level of water in the channels, particularly in the vicinity of Bligh and Bounty Streets.

The rate at which the Bounty Street bridge is sinking may have increased during the past few decades and requires further investigations to assess the risk of significant damage to these structures and the means by which such damage may be averted. Water level management options aimed at protecting the bridges and channel structures may conflict with water levels required to sustain wetland habitat

and maintain water quality. There may also be implications for the management and interpretation of the Serpentine.

16.4.4.3 Lumber Yard/Prisoners' Mess

The Bay Street public toilets are in a convenient location in relation to Slaughter Bay and the Prisoners Compound. The present use of the Lumber Yard/Prisoners' Mess site does not cause damage to the remaining fabric of those structures, however for the future investigation and interpretation of this site it may be appropriate to consider an alternative site for the Bay Street public toilets.

16.4.4.4 Monuments and Memorials

Kingston is steeped in cultural history and heritage, both past and present. The convict era buildings and ruins are a monument to their skill and a memorial to their hardships. The conservation and interpretation of these structures and the landscape setting of the convict settlement is further recognition and appreciation of those people and times. Even so, there is a continuing desire on the part of descendants to erect memorials of various kinds to their forebears. There is also a general desire to recognise particular events (such as the wreck of the Sirius) in an official or semi-official manner.

The heritage and personal significance of Kingston and the people who have toiled and lived here encompasses much more than the convict era settlements between 1788 and 1856, important though they are. The recently discovered Polynesian settlement of the island, the arrival of the Pitcairners and the lives and activities of Norfolk Islanders over the past one hundred and fifty years are all worthy of celebration and recognition.

A number of special memorials in the form of timber seats, brass plaques and tree plantings have been placed in reserves at Kingston during the past twenty years. The potential demand for more is great. Each request to erect a memorial or plaque or plant a tree has been considered on an *ad hoc* basis, without the benefit of an overall strategy or plan.

It is now getting to the stage where the number of seats, plaques, trees and other memorials or monuments are in places starting to detract from the landscape and setting of the site.

The most appropriate way to commemorate people and events in the reserve is through interpretation: in the museums, by walking tours, through documents and on site signs that have been developed as part of an integrated interpretation strategy. It is important that the community, including private individuals, historical interest groups, corporations and benefactors, contribute to and participate in the development of the interpretation strategy and material.

The number and position of seats and indeed planting of trees should be determined by the need and the setting rather than by the demand for memorials. A possible short-term solution to this dilemma could be to allow a number of small plaques commemorating different people and events to be attached to an existing seat (for instance). However, those who originally sought or paid for a particular seat to commemorate a specific individual do not often support this option.

16.4.5 Habitat Rehabilitation and Development

The semi-formal open landscape of the reserve is appropriate to its heritage values and use.

16.4.6 Wetland Habitat

The wetland/swamp habitat is an important biodiversity conservation element on Norfolk Island. Management options that ensure its retention and maintenance should be vigorously pursued. If a

lower water level is necessary for the conservation of cultural heritage structures, it may be necessary to lower ground levels in the vicinity of the channel to maintain wetland habitat.

Occasionally dogs that roam from nearby residences harass and attack waterfowl and wading birds, although these instances are not common.

16.4.7 Pest Species

16.4.7.1 Weeds

Woody weeds are not a problem in Kingston Recreation Reserve.

Water Hyacinth is a declared noxious weed, however herbicides that can be used to control it damage or kill other aquatic organisms. Biological controls have had limited success. Water Hyacinth grows rapidly, extracting nutrients from the water. Removing Water Hyacinth would result in the extraction of nutrients from the wetland system and reduce nutrient pollution of Emily and Slaughter bays. Regular removal of Water Hyacinth would also increase habitat diversity for aquatic invertebrates. A Water Hyacinth mulch could be useful in restoring eroded slopes, such as Flagstaff Hill. Care would need to be taken to ensure that Water Hyacinth was removed from the surface of the water, without disturbing the banks and bottom of the channel.

Regular maintenance removes the occasional weeds (including Castor Oil Plant) that are carried downstream, keeping the reserve relatively weed free.

16.4.7.2 Feral Birds

The number of Feral Fowl (chickens), Domestic Geese and Feral Pigeons in the reserve has increased over recent years. The number of Feral Fowl on Norfolk Island and in the Commons and reserves used to be controlled by dogs, shooting, and removal of both fowl and eggs for food.

The Domestic Geese in the reserve originate from a small flock belonging to a neighbouring landowner. The owner collected goose eggs laid on the Common, thus keeping the number of geese to approximately half a dozen. Eggs have not been collected since the owner moved to another property and the number of geese has increased to about twenty. Some members of the community deliberately feed the fowl and geese, as do many visitors to the island.

Feral Pigeons roost on the cliffs of Nepean Island, flying to Norfolk to feed. The number of Feral Pigeons on the Island and in the reserve has steadily increased in recent years.

Many visitors and some locals consider introduced feral birds an attractive addition to the Kingston scene. Unfortunately, these birds compete for food and space with native species such as the Tarler bird and some migratory waders.

Increasing numbers of the introduced Mallard duck are frequenting foreshore picnic areas and the playing field. Mallard directly compete and interbreed with the native Pacific Black Duck, which is now probably extinct on Norfolk. The Mallard also threatens the survival of the Pacific Black Duck on other Pacific islands. Geese and mallard also foul the playing field.

16.4.8 Water Quality

The wetland that has developed along the Watermill Creek channel and on nearby low-lying areas plays a significant role in maintaining the diversity of the marine environment in Emily and Slaughter Bays.

The exclusion of stock from the reserve has reduced the damage to stream banks and has improved water quality. However, stock still have access to the Watermill Creek channel upstream from Bounty Street, adversely impacting on water quality: increasing sediment loads by damaging channel banks; contaminating the stream with faecal waste; and adding nutrients.

Drain Flags, Water Hyacinth and other wetland vegetation improve water quality through slowing water flow, thus trapping sediment and increasing the period that faecal bacteria and potential pathogens in the water can be destroyed by sunlight; filtering rubbish and other gross material from the water; and taking up nutrients. Regularly removing wetland vegetation can be an effective method of reducing nutrients and other pollutants, provided the vegetation removal is carried out in a manner that minimises and contains the effects of disturbance. Disturbance can be minimised by removing wetland vegetation, including Water Hyacinth and other channel vegetation from upstream sections of the wetland then allowing a period of regeneration before removing vegetation from downstream. Retaining the sediment trapping capacity of wetland and channel vegetation downstream from the area(s) being disturbed will minimise the pollution of Emily Bay from such work. The vegetation in the channels downstream from Bligh Street should be the last to be removed in any vegetation and channel maintenance.

Vegetation and sediment removed from the wetland is a valuable resource that could be utilised in erosion control and rehabilitation.

16.5 Management Objectives

Vision: To conserve and enhance the cultural and natural heritage values of the reserve for the enjoyment of current and future generations of Norfolk Islanders and visitors.

16.5.1 Cultural Heritage Management

Aim: To conserve the cultural heritage fabric of the reserve and provide for continued public recreation use of the Kingston playing field.

Objectives:

- Maintain and protect the cultural heritage fabric of the reserve, including No.11 Quality Row, the remains of the Lumber Yard/Prisoners' Mess, drainage structures, footings and other structures.
- Protect archaeological deposits and remains.
- Preserve the essential landscape elements of the reserve.
- Provide for the continued public use of the playing field and open space.

16.5.2 Natural Heritage Management

Aim: To conserve native habitat and species diversity in the reserve compatible with the open landscape of the reserve and its use for public recreation.

Objectives:

- Minimise the adverse impacts on water quality and the wetland ecosystem associated with grounds and drainage maintenance, and public use.
- Maintain and protect wetland habitat.
- Maximise the quality of waters flowing into Emily Bay.
- Protect fossil deposits and remains.

16.5.3 Pest Species Management

Aim: To reduce the negative impact of pest species in the reserve.

Objectives:

- Control invasive introduced weeds throughout the reserve.
- Control feral birds in the reserve.

16.5.4 Recreation Management

Aim: To provide for appropriate public recreation and commercial use.

Objectives:

- Provide for appropriate public use of the playing field and open space.
 - Provide and maintain appropriate public amenities.
 - Manage impacts associated with public use of the reserve.
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16.5.5 Education and Interpretation

Aim: To promote knowledge and understanding of Norfolk Island's cultural and natural history and issues related to conserving and managing Kingston Recreation Reserve.

Objectives:

- Define and develop interpretation/education resource material specific to the reserve.
 - Encourage appropriate scientific and educational activities in the reserve.
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16.6 Management Strategies and Actions

16.6.1 Cultural Heritage Management

The reserve's major cultural attributes are:

- continued use of the playing field for public recreation;
- continued use of the open space between the drainage channel and wetlands;
- the fabric of No.11 Quality Row;
- the fabric of the Lumber Yard and Prisoners' Mess;
- drainage system;
- archaeological deposits and remains;
- Norfolk Island Pines growing along Quality Row and the Norfolk Island Pines planted by the CWA; and
- the open landscape setting.

Activities that are likely to adversely affect any of these cultural attributes to a significant extent, other than in a manner or for a purpose envisaged in this Plan will not be permitted.

The fabric of First and Second Settlement structures in the reserve, in particular No.11 Quality Row and the Lumber Yard and Prisoners' Mess, will be maintained, restored and conserved in accordance with appropriate conservation techniques, under the supervision of the KAVHA Conservation Services Coordinator and the KAVHA Project Manager.

16.6.1.1 New Structures

No new buildings or other permanent structures are permitted in the reserve. However, temporary structures may be permitted provided the erection and use of such structures is not likely to significantly detract from the heritage values of the reserve or permanently harm the heritage values of the site or the reserve as a whole.

The temporary erection of marquees and tents may be permitted by the Conservator of Public Reserves, provided to do so is in the public interest and that the enjoyment and use of the reserve by the public is not interfered with.

16.6.1.2 Excavations

No new buildings or other permanent structures are permitted in the reserve, however minor works, such as laying electricity or communications cables that require new excavations may be required from time to time.

An archaeological sensitivity plan will be developed that will provide guidance for managing excavations. No excavation will be permitted without consideration of the likely archaeological impact. Where appropriate, archaeological investigations will precede excavation. All excavations will be carried out under the supervision of the Project Manager (KAVHA) and or the Conservator of Public Reserves.

16.6.1.3 Monuments and Memorials

An interpretation strategy that encompasses the celebration and recognition of individuals and events shall be developed with the involvement of the community.

Existing monuments and memorials will remain, but may at some time in the future be replaced by documentation or other interpretation material.

No further monuments or memorials will be permitted in the reserve, unless they are specifically provided for in the interpretation strategy.

16.6.1.4 Landscape Management

The Norfolk Island Pines planted along Quality Row; those planted by the CWA near Bay Street; and the small self-sown White Oaks will be retained unless damage to infrastructure is evident and removal therefore necessary. There will be no further plantings in the reserve, except to replace existing trees as required.

The KAVHA Restoration Team will continue to maintain the playing field and open space in the reserve.

16.6.2 Natural Heritage Management

16.6.2.1 Habitat Rehabilitation

The original native habitats within the reserve have been significantly altered. The resulting landscape has great cultural heritage significance and will be conserved.

The wetland along Watermill Creek and low-lying areas of the Kingston Common provide an important relic habitat for aquatic flora and fauna that is virtually non-existent elsewhere on the island. The wetland is also important for improving the quality of surface waters that flow into Emily Bay.

16.6.2.2 Maintenance of Drainage Channels and Wetland

The wetland habitat in the reserve will be conserved. The wetlands and drainage channels require careful management to maximise water quality and habitat benefits while conserving heritage structures.

Annual mechanical cleaning out of the drainage channel is not an appropriate management strategy. However, regular mechanical removal of Drain Flags and deposited sediment as well as strategic channel maintenance is appropriate. Different locations, configurations, and heights of barriers will be trialed and the effects on wetland and channel water levels monitored. Sediment that has built up in the channel to the extent that endangers heritage structures will be removed.

Options for maintaining the wetland as well as lowering water levels at important heritage structures such as Bounty Street bridge will be examined. These options may include excavating sediments near the channel to support wetland and achieve lower water levels in the channel. Options for stabilising heritage structures such as Bounty Street bridge will also need to be investigated. Following these investigations, the KAVHA Board will be consulted for input into the maintenance procedure.

To minimise the pollution of Emily Bay from such work, drainage channel maintenance will be carried out by removing wetland vegetation, including Water Hyacinth and other channel vegetation, from upstream sections of the wetland then allowing a period of regeneration before removing vegetation from downstream. The vegetation in the channels downstream from Bligh Street will be the last to be removed in any vegetation and channel maintenance.

16.6.3 Pest Species Management

16.6.3.1 Weed Control

Weeds in the reserve will be controlled through hand weeding and mowing.

16.6.3.2 Bird Control

Shooting, live trapping and if necessary approved control chemicals will be used to control feral fowl, geese, and ducks in the reserve.

16.6.3.3 Fungus Control

The incidence and effect of *Phellinus noxius* in the reserve will be monitored. Disturbance and damage to tree butts and roots will be minimised.

16.6.4 Recreation Management

Public recreation is appropriate in the reserve, excluding the wetland area.

16.6.4.1 Picnic and BBQ Facilities

It is not intended to provide picnic or barbecue facilities in the reserve. The need for picnic and barbecue facilities will be reviewed periodically by the Conservator of Public Reserves.

16.6.4.2 Public Toilets

The public toilets near Bay Street are in good condition and adequate for current use. The public toilets at No.11 Quality Row are adequate for current use but require refurbishing.

16.6.4.3 Walking Tracks

There is no need to provide formal walking tracks in the reserve.

16.6.4.4 Vehicles

Present arrangements for vehicles in Kingston Recreation Reserve are generally appropriate and adequate. However, it may be necessary to erect low timber vehicle control barriers if grass areas south of Watermill Creek become significantly worn or damaged.

16.6.5 Education and Interpretation

Kingston Recreation Reserve contains cultural heritage features of national significance. It also contains important wetland habitat.

16.6.5.1 Interpretation Strategy

An Interpretation Strategy and interpretive material for Kingston Recreation Reserve will be developed as resources become available. The principal interpretation and education themes in the reserve will be:

- cultural heritage; and
- conservation, land management and the environment.

Community involvement in the development and delivery of the Interpretation Strategy is encouraged.

16.6.5.2 Signs

In accordance with the interpretation strategy, signs will be designed and erected in appropriate locations to provide visitors with information about significant natural and cultural features of the reserve. These signs may include public safety warnings, location and direction signs.

16.6.5.3 School Visits

The Norfolk Island Parks and Forestry Service will encourage, and where possible assist with, appropriate school visits to the reserve that are designed to provide an understanding of Norfolk's natural and cultural heritage and aimed to encourage students to participate in environmental protection, research and rehabilitation.

16.6.5.4 Walking Tours

The Norfolk Island Museums and the Norfolk Island Parks and Forestry Service will encourage, and where possible assist with, appropriate walking tours that are designed to provide visitors with an understanding of Norfolk's natural and cultural heritage.

16.6.5.5 Community Involvement

Community involvement in the development and implementation of management programs in Kingston Recreation Reserve will be encouraged in association with the Norfolk Island Museum, Historic Society and the KAVHA Management Board and Restoration Team.

16.6.6 Forestry

Forestry is not an appropriate activity in the reserve.

16.7 Research and Monitoring

A strategy for conducting research and for monitoring the effectiveness of management programs in the reserve will be developed in conjunction with the KAVHA Management Board.

16.8 Controlled Activities

This Section shall be read in conjunction with Section 11 of the Plan of Management (Part A) and the *Public Reserves Act 1997*.

Section 11 of the Plan of Management (Part A):

- approves specific controlled activities, with respect to all public reserves;
- provides general guidelines in respect of granting approvals and permits for controlled activities, with respect to all public reserves;
- specifies activities³⁰ in accordance with section 47(2) of the *Public Reserves Act 1997* that shall not be undertaken in any public reserve without a permit; and
- provides general guidelines in respect of granting permits for activities specified in accordance with section 47(2) of the Act.

This section of the Plan of Management (Part B) specifies controlled activities in accordance with Section 47 of the *Public Reserves Act 1997* in relation to the use of Kingston Recreation Reserve.

16.8.1 Camping

Camping shall not be permitted in Kingston Recreation Reserve.

16.8.2 Vehicles

Private motor vehicles may be driven on and temporarily parked in the following locations:

- grass areas adjacent to the playing field; and
- between the Watermill Creek channel and Bay Street, to the east of the Lumber Yard/Prisoners Mess site.

Private and commercial motor vehicles other than plant and equipment may also be driven and temporarily parked on the grass between Bay Street and the Bay Street public toilets.

Vehicles, plant and equipment that are necessary for the maintenance of the reserve may be driven and temporarily left on the reserve only with the permission of the Project Manager (KAVHA Restoration Team) or the Conservator of Public Reserves.

³⁰ The activities specified are additional to the Controlled Activities prescribed in Part V of the *Public Reserves Act 1997*.