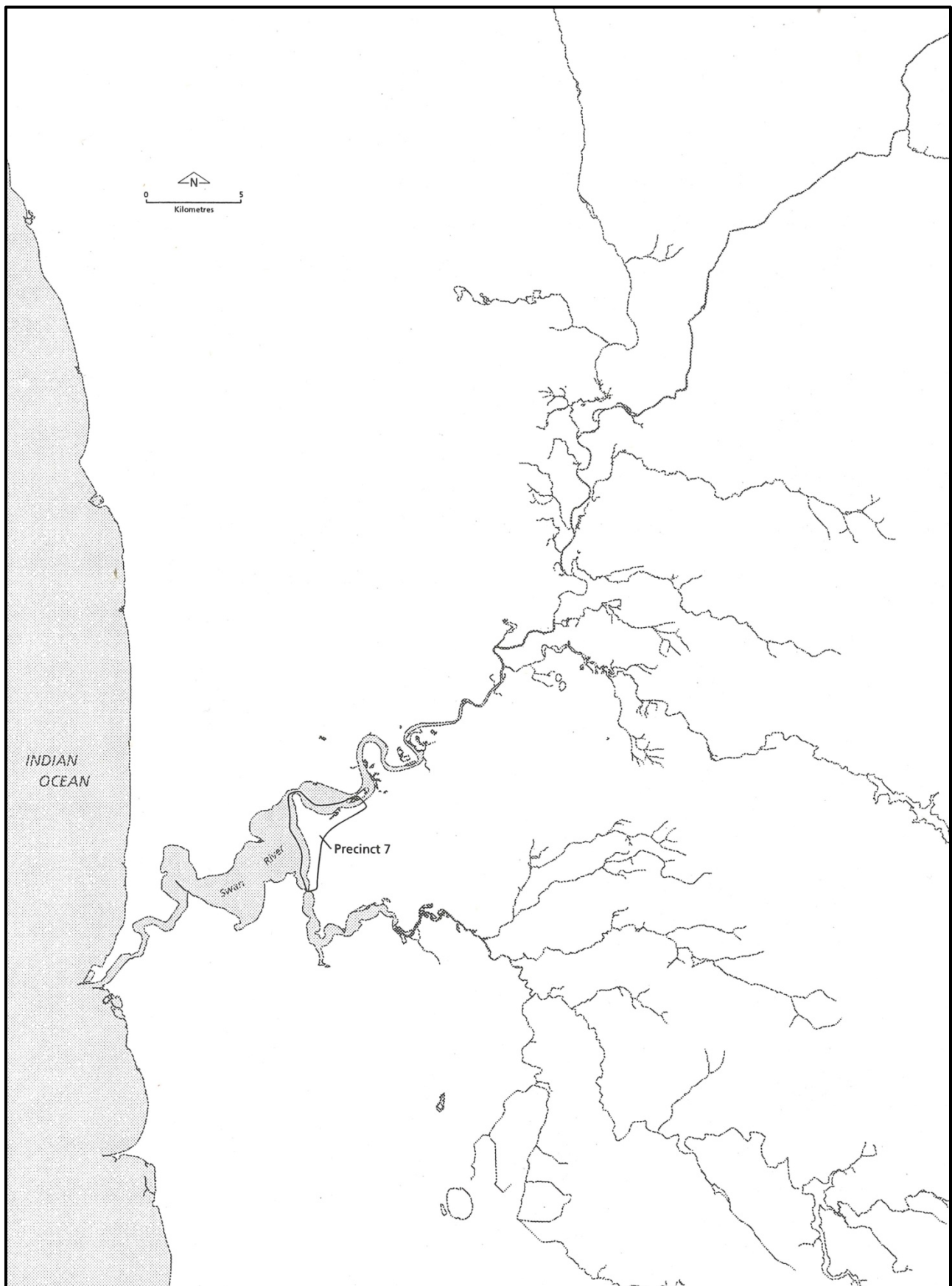


Precinct 7

South Perth – Canning Bridge to the Causeway



Summary

Perth Water – Perth City Foreshore

The precinct is the southern foreshore of Perth Water and the eastern side of Melville Water, between the Causeway and Canning Bridge. The Como section of Melville Water is a long linear north-south orientated sandy beach. The construction of the Kwinana Freeway has reduced the once wide sandy beaches to narrow beaches with several limestone groins to reduce sand movement.

The Milyu Reserve is a narrow belt of natural vegetation which is an important nature reserve for the flora and fauna of the area. The rest of the Como foreshore is grassed and has other exotic species present. There is also a heavily used dual use path along the foreshore.

The Swan River forms a visually enclosed basin at Perth Water. The southern foreshore has been reclaimed using sediment from the channel and landfill. This is protected from erosion by the limestone retaining wall which has been constructed along the South Perth foreshore except for the small sandy and shelly beach west of the Coode Street Jetty. The South Perth foreshore has reticulated lawn and gardens. There are few trees adjacent to the South Perth Esplanade and there are a number of rose beds. Sir Mitchell Park has been extensively re-landscaped to incorporate the original paperbark swamps and the open playing ground areas. There are several man-made lakes and various facilities to encourage several recreational pursuits. The area adjacent to the foreshore reserve is high density housing with several multistorey townhouses and units dominating the landscape. The overall appearance of the river landscape in this precinct is of an ordered and controlled environment. This is due to the maintained lawn and gardens, the retaining wall separating the water and land and the neat residential areas.

Biophysical Processes

Geological Processes

The geological formations of the South Perth Precinct are made up of Quaternary deposits of partly lithified or unconsolidated sediments which are related to erosion and deposition processes during the Pleistocene and Holocene (SRT, 1994).

The major part of the South Perth precinct is made up of the sandy plains which have peaty pozols in the swampy areas known as the Bassendean Soil Unit (McArthur and Bettenay, 1974). The South Perth peninsula is made up of the aeolian deposits of the Karrakatta Soil unit (deep yellow sands over limestone). The marine deposits of the Vasse unit consisting of mixed layers of recent estuarine deposits are present along the southern Perth Water foreshore. The early settlers found the soil excessively drained deep yellow sands, except for the northern shore where the land was sandy loam.

Topography

South Perth is part of the Bassendean Dune System which consists of a series of low hills (Balla, 1994). Apart from the central hill, the land in South Perth is below 15 metres ADH and was originally subject to frequent flooding. The present day foreshore topography is between 2 and 4 metres AHD, however this would have been much lower before reclamation took place. The foreshore now is a relatively flat platform which is only broken by the rise of 'Yellow Hill' adjacent to Parker Street.

Hydrological Processes

Water features

The water foreshore was reclaimed in 1939 at Millars Pool and again in 1966 which extended the foreshore 50 metres into the river. Further foreshore changes were made with the construction of the Narrows Bridge and Kwinana Freeway, which involved realigning the Melville Water foreshore and removing 60 metres off Point Belches. There are three artificial lakes located on the eastern side of Sir James Mitchell Park. These receive drain water which is drained into the river and also used for reticulating the park. Originally, there were several freshwater springs in the area, however these have since dried up.

Bathymetry

The river bed is rocky and stable and varies in depth between 0.6 and 1.5 metres. There are two banks of shallow clayey mud flats which stretch in two north-south orientated bars in the Perth Water. The South Perth section of the channel originally had a

large shelly fossil bed, which was excavated by the Public Works Department for reclamation at Coode Street. The section of Melville Water adjacent to Royal Perth Golf Course has a large sandy bank which is often exposed in low tide conditions.

There are several navigation channels which range between 1 and 1.5 metres below low water mark. The river foreshore contains several underground aquifers up to 1000 metres deep which are refilled by rainwater, although extensive bore construction has reduced the amount of low salinity water in these formations.

Below the Causeway the river is estuarine in character. The physio-chemical composition of the river is dependent on the high winter rainfall received in the catchment. The water in the deeper basins, such as Melville Water, is more saline than the overlying water. In the shallower Perth Water, the stratification is less pronounced due to the wind driven water agitation. Hydrological change also varies due to tidal influence which varies between 0.15 and 1 metre AHD (SRT, 1994).

Flooding

In 1862, there was severe flooding of the South Perth river flats and these floods caused Millars Pool to become filled with sediment. In 1929, Perth had received an unusual sequence of high westerly winds and very heavy rains in the hinterlands. The flood waters inundated all of Mill Point and the South Perth Esplanade and all the Chinese market gardens adjacent to Mill Point Road. Flooding has been reduced by reclaiming the low lying land and retaining the land with limestone walls.

Erosion and accretion

The degree of erosion along the South Perth foreshore has been markedly reduced by the limestone retaining wall which has been constructed along most of the foreshore. There is little erosion along the shelly banks of the unwallled foreshore near Coode Street. At Milyu there is offshore deposition and erosion of fluvial sediments on the mud banks. Como beach is more dramatically affected by erosive processes since the construction of the freeway which has built upon the sediment which would have been removed and redeposited by wave action.

Vegetation Communities

Native

Vasse Complex

The flora of the Vasse Complex would have been the original vegetation at Point Belches and along a narrow line east of the Coode Street Jetty (DCE, 1980). It consisted of a mixture of closed melaleuca scrub to a fringing woodland of flooded gum (*Eucalyptus rudis*) and melaleuca species. It would have also included an open forest of tuart (*Eucalyptus gomphocephala*), jarrah (*Eucalyptus marginata*) and marri (*Eucalyptus calophylla*) on the higher land. The wetlands would have originally supported swamp paperbark (*Melaleuca raphiophylla*), moonah (*Melaleuca preissiana*) and saltwater paperbark (*Melaleuca cuticularis*), swamp sheoak (*Casuarina obesa*), Christmas tree (*Nuytsia floribunda*), robin redbreast bush (*Melaleuca lateritia*) and coojong (*Acacia saligna*).

Karrakatta Complex

A small section of Point Belches originally supported the flora identified as being the Karrakatta Complex. This complex is predominantly tuart (*Eucalyptus gomphocephala*), jarrah (*Eucalyptus marginata*) and marri (*Eucalyptus calophylla*). The understorey consisted of slender banksia (*Banksia attenuata*), firewood banksia (*Banksia menziesii*) and bull banksia (*Banksia grandis*). In addition, sheoak (*Allocasuarina fraseriana*) and peppermint (*Agonis flexuosa*) are found.

Bassendean Complex

The indigenous flora of this precinct is classified as being part of the Bassendean Complex.

The vegetation ranges from woodland of jarrah (*Eucalyptus marginata*), sheoak (*Allocasuarina fraseriana*), and various banksia species (*Banksia* species) to sedge lands on the moister and lower sites.

Sir Charles Fraser, botanist on the 1927 Stirling exploratory party, described Point Belches as having banksias, eucalypts and the shrubs consisted of a 'beautiful Isopogon, a species of Acacia and a Jacksonia with crimson flowers'. Early residents of South Perth recall that there were abundant swanberries (*Rhododia baccata*), a native berry which was very sweet and popular with both with locals and goannas. They also recall that between Mends Street and the Causeway there was a belt of river gum (*Eucalyptus rudis*), salt sheoak (*Casuarina obesa*), paperbark (*Melaleuca* sp), reeds and rushes (Gothard, 1988). The hinterland was described as undulating with jarrah (*Eucalyptus marginata*) and banksia (*Banksia* sp) (Crowley, 1962).

The man-made lakes have some fringing rushes (*Typha* and *Baumea*). North of Canning Bridge there are several reeds (*Juncus* species) and salt sheoak (*Casuarina obesa*) which are not in good condition. There are also summer scented wattle (*Acacia rostellifera*) and several eucalyptus trees adjacent to Kwinana Freeway. At Milyu, there are rushes (*Juncus kraussii*) and paperbarks (*Melaleuca* species) but unfortunately several weed species.

Exotic

The foreshore along Sir James Mitchell Park, Point Belches and Mc Callum park are maintained lawn of couch (**Cynodon dactylon*) and kikuyu (**Pennisetum clandestinum*). The man made lakes have large willows (**Salix babylonica*) and cotton palms (**Washingtonia* sp) on the islands which are the result of incorporating historically planted species into new landscape plans. Giant reed (**Arundo donax*), and pine seedlings (**Aracuccaria* sp) are prominent exotics along the Kwinana Freeway. Como Beach has flame trees (**Brachychiton acerifolius*), dandelion (**Taraxacum officinale*), poplars (**Condonocarpus continifolis*), buffalo (**Stenotaphrum secundatum*) and couch (**Cynodon dactylon*). At Milyu Reserve there is pigface (**Carpobrotus aquilaterus*), wild oats (**Avena fatua*) and beaded oats (*Avena barbata*), cats tail (**Lagurus ovatus*) and couch (**Cynodon dactylon*). North of Canning Bridge, Geraldton wax (**Chamelacium uncinatum*) and pencil pines (**Cupressus* sp) have been planted.

Historical Land use & Resulting Environmental Changes

The area was first sighted by the Dutch explorer Willem de Vlamingh in 1697. In 1801, the French exploratory party lead by Francois Heirisson was stranded at the muddy flats now known as the Causeway and the islands were named 'Iles Heirisson'. Stirling's exploratory party mapped the Swan and named Point Belches after Peter Belches, 3rd Lieut. of H.M.S. Success.

The early colony was planned from 1829 and the South Perth peninsula was identified for suburban extension of Perth. In the early years there was little need for a suburb of Perth and as a consequence the area was quite slow to grow due to its inaccessibility and land which was unsuitable for productive agriculture. However the rich and risk taking investor William Peel laid claim to the whole area using his and a number of other people's entire fortunes. Peel planned to initiate a massive land settlement the peninsula and it was agreed that the scheme must be successful before 1 November 1829 after which the land would be allocated to other settlers. His scheme fell through and Peel was allocated land near the present day Peel Inlet at Mandurah.

As a result the land was open to any person who could prove that they had sufficient capital and money equal to the land's value. The land excepting 'Suburban Perth' was eventually sold to a number of investors. Edward Flaherty, George Earl and Henry Trigg owned land between Douglas Avenue and Berwick Street. Como and Collier areas were allocated to Hugh Mac Donald, C. Farmer and T. Middleton.

In 1833 the first land grant in the 'Suburb of Perth' was allocated to William Shenton and the following year he opened his mill. Later in 1834, the mill was attacked by Aborigines of the Murray River people who stole the flour and equipment. In a second incident, the mill was burnt down and needed to be rebuilt. It ceased operation in 1854.

Millars Pool at the tip of Point Belches was a popular boating spot, however with the approval of the South Perth Roads Board, the government filled in the pool. This was done to stop foreshore erosion and reduce river flooding, improve transport and fill in the algae collecting bays between Richardson Street and Mends Street. There was great opposition to the project, however it was justified by the Road Board due to the plan to bridge Perth Water by islands or a punt ferry. In 1840, the problem of accessing South Perth was overcome by the construction of the first Causeway over Heirisson Island. Early plans for a railway from Fremantle to Guildford through South Perth were never implemented.

South Perth suburban lots were offered for sale in 1834 and these were bought by a number of families so by 1859 there was a total of 65 people living in the area. The suburb of South Perth was divided into the wealthy area along the peninsula and the working families towards the Causeway. Several old pastoral families built their town houses in South Perth. In March 1851, the pensioner guards had established a depot in South Perth. Many of the guards were given allotments along the Kwinana Freeway side of the South Perth foreshore (Florey, 1995).

All along the South Perth foreshore between the Causeway and Point Belches there were several Chinese market gardens which have been recorded as along the foreshore from 1888 (Crowley, 1962). The land on the foreshore was owned by a number of white families who allowed the market gardeners to cultivate the rich loam and the area became known as 'Yellow Hill'. The area had springs and the gardeners built several drains to water the gardens, which were filled with minnows and goldfish. As the government refused to grant miners leases to any Chinese and they were not allowed to become naturalised, many of the Chinese migrants settled here. In 1903 conditions became so crowded that bubonic plague broke out. However the gardens were a popular feature of South Perth and the local people boasted that the produce was the best in the State.

They remained until the 1950s when the South Perth Council took over the foreshore.

The Mends Street and Coode Street Jetties were built in 1894 and 1896 respectively. Previously, the first vessels used on the South Perth run were the two small sided paddle steamers Princess and Empress run by the South Perth Ferry Company. These transported passengers between Barrack Street, Perth, and Queen Street, South Perth. There were several discussions whether to municipalise or subsidise the ferries, as demand on the ferries increased from tourists to the Perth Zoo and commuters to the city. Harry Sutton and Jack Olsen started the Swan River Ferries in 1910. They ran the Coode Street service and the Canning Bridge Applecross/Como service as well as round-the-bay trips on weekends and trips up to Guildford. The State Government ran the service between Mends Street and the City. Sutton and Olsen were part of the significant Swedish and Norwegian community which had settled in the area and as a consequence most of the ferries were given Swedish names.

In 1905, the first subdivision of the 'Como Estate' was sold. During 1907, the Como Jetty was built by the estate and the Council provided facilities for bathers, campers and picnickers. The beach was declared a public beach in 1911. From this point on the Como and South Perth area rapidly developed. Crowley (1962) expressed an opinion that the suburbs were developed with the profit motive and not the vision of a planner. He also believed that the home builders for a variety of reasons were 'condemned to a physical encompassing that left them with little room for individuality' when they conformed to the generation's architectural style.

There were several dairies in the area in the 1930s. Robert's Dairy was located adjacent to the old Weaver and Locks soft drink factory in Gladstone Avenue. The Manning's Dairy was near the Causeway and the cows were often seen standing on the sand bank adjacent to Heirisson Islands (Gothard, 1988).

The cleared foreshore near Wesley College was used as an unregistered race course run by Alec Clydesdale and the park now bears his name. The racetrack was established in 1890s and was still used forty years later.

The Perth Zoo has been a popular recreational spot for people from all over Perth since it opened in 1898. Visitors to the zoo created a heavy demand for the ferries across Perth Water. In the early days the Zoological Gardens not only provided opportunity to see many exotic animals and flora but also had facilities for tennis, cricket and a hot bath. The hot bath was built using the hot underground springs which were once prevalent in the area. The baths were frequented by the residents of South Perth every day as they were cheaper and easier than heating

hot water for a bath at home. The Richardson family lived adjacent to the parkland now named after their father. Constable Richardson was the local policeman and later the gate keeper for the Perth Zoo. Several of the palms which are present from Coode Street to Como were planted using seed from the Zoological Gardens in the 1930s (City of South Perth, 1996).

In 1922 the tram service reached the district and ran until 1952. The trams served to link the ferry ports to the growing suburbs and the demand for crossing the river dramatically increased. From 1901 plans were drawn up for a bridge across the Narrows, however these plans were abandoned. In 1954 the Hawke Government made a decision to construct a traffic bridge across the Narrows water. The plan involved taking 60 metres off the Point Belches foreshore and reclaiming a significant part of Perth Water. Maunsell and Partners were the engineers who were given the requirement that the bridge should be 'of good appearance worthy of its beautiful setting'. The pre-cast, pre-stressed, concrete bridge was opened in 1959 as 'The Narrows Bridge'. The Kwinana Freeway was built on the Melville Water foreshore which substantially reduced the wide sandy beach at Como and the remaining swampy beaches at Milyu.

The South Perth and Como areas were dramatically changed by the freeway. It was decided that it was better to build the freeway along the foreshore rather than running the freeway through the suburbs which would cut the suburbs in half and be a more costly project. The 1960s proved to be a time of dramatic population boom in the municipality and the first high rise development, 'Darley Heights', was constructed in 1967. This was the first of many multi storey apartments and subdivided blocks which have become characteristic of the inner-city suburb of South Perth.

Infilling of the South Perth foreshore has occurred since the 1930s. Most infilling occurred around Pt Belches, Melville Parade and Coode St Jetty. During the 1950s a section of Perth Water was excavated by the Public Works Department for reclamation at Coode Street. Between 1959 and 1969 the foreshore area adjacent to Swan View Terrace was used as a domestic rubbish tip. The area reclaimed was 32 hectares and reached to a depth of approximately 2 and a half metres (Riggert, 1978). This was levelled and use as a golf practice driving range up until the late 1980s when the land was re-landscaped into artificial lakes and a general recreational area.

Present Land Use and Social Patterns

The majority of homes in South Perth are constructed in California bungalow style while in Como there are more recent international styled bungalows. There are of course a few older homes in the district but the majority of these have been demolished for townhouses and units. There was a building boom in the late 1980s which allowed large townhouse complexes to be constructed in *Post Modern* styles several storeys high adjacent to Sir James Mitchell Park. At Mends Street and 'Yellow Hill' there are several multistorey flats which are built in narrow 'sky scraper' forms of the 1970s styles. There are several places where the residential area abuts directly onto the foreshore including the flats on 'Yellow Hill' and between Coode and Ellam Streets.

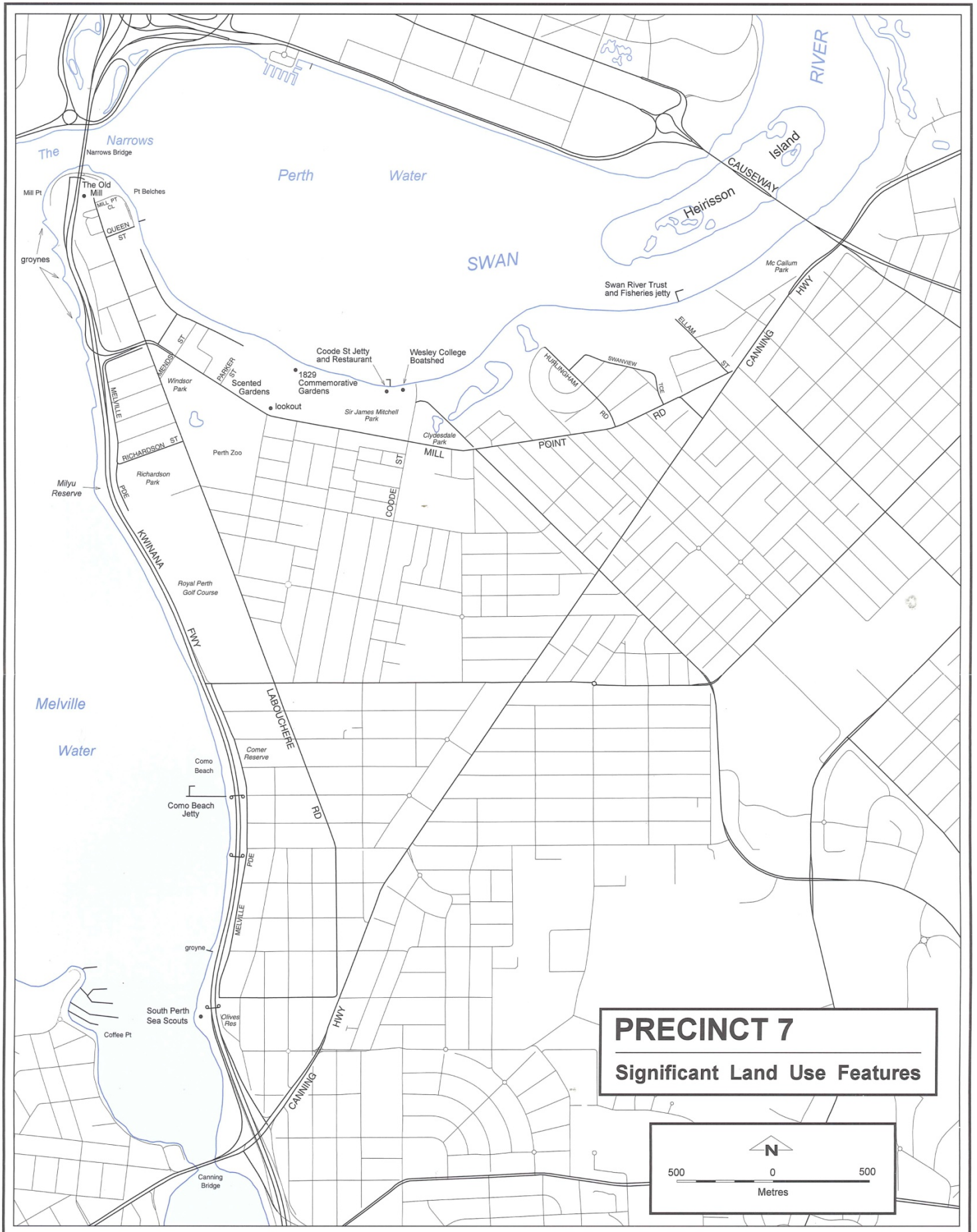
At Mends Street there is a retail complex which extends between the Perth Zoo and the Mends Street ferry. The streetscape has recently been upgraded with new trees, a new pavilion at the ferry terminal and a new shopping centre. The retail complex has recently encouraged office land use and some of the shops have aimed for a regional market which has put increasing pressure on parking in the area.

At Sir James Mitchell Park the South Perth City Council has been implementing a foreshore management plan (1994). The plan has allowed a small kiosk to be constructed on the foreshore adjacent to Coode Street Jetty. The kiosk is in a boat shed design of treated pine and gabled green colour bond roof. This style was used for the picnic area shelters and is in keeping with the adjacent Wesley College Rowing Club.

The Como foreshore has been isolated from residential and commercial use by the freeway. There are several prominent buildings including a few motels, a number of townhouses and the recently demolished 'Pagoda' dance hall. This suburban land use is distinct from the narrow recreational use of the foreshore. The southern foreshore of Perth Water is walled by limestone retaining walls, except for the area between Parker Street and Wesley College boat shed. The rest of the precinct's foreshore has been allowed to retain small sandy and shelly beaches.

Recreation nodes

The open areas of McCallum Park, Sir James Mitchell Park and Point Belches are popular areas for passive and active recreational activities including picnicking, walking, and bird watching. Water based activities include water skiing, surfcatting, rowing, jet skiing, fishing and prawning. Water skiing is restricted to an area off Mill Point which is also used by a commercial para sailing company. Mobile surfcat operations are located adjacent to the Coode Street Jetty and use the Perth Water area between



the ferry channel and up to Hurlingham Road. The Wesley College rowing shed is located on the Coode St foreshore adjacent to a boat ramp. A new restaurant has been built at the Coode Street Jetty. At Como Jetty, the beach is suitable for swimming and there is a small picnic area adjacent to the jetty. The area is also a popular fishing spot with local people and a good prawning spot in summer. Due to the relative inaccessibility and high noise level the number of beach users is very small considering with how popular the beach was historically.

Every Australia Day weekend the South Perth Foreshore is an important viewing point for thousands of people to view the fireworks show. For many of the locals this is a controversial activity, as the foreshore is inundated by many people and the result is an expensive clean up operation every year.

Royal Perth Golf Course was granted its lease along Labouchere Road in 1907. It is a private course, with the highly manicured lawns and trees restricted to members only. The adjacent Richardson Park is used by local sporting clubs throughout the year.

Other foreshore recreational spots include Milyu Nature Reserve, McCallum Park and Clydesdale Park.

Public access

There is a dual use path all along the foreshore between the Causeway and the Canning Bridge. There are four pedestrian overpasses across the Kwinana Freeway to enable access to Milyu and Como Beaches. The bike paths are heavily used by cyclists who commute to the city for work. Access is severely limited by the Kwinana Freeway which discourages visitors to the area due to the heavy traffic and associated high noise levels generated so close to the foreshore.

Sites of Nyungar & Wider Australian Community Significance

Nyungar significance

It is believed by Lyon (in Collard *et al*, 1996) that the South Perth area was the country of Beeloo Nyungars or river people. The key Nyungar figure at the time of colonisation was described by Lyon as Munday. Nyungars who used this area were known as *Gareen* and their place was *Gareenup* (Vinnicombe, 1989). An important camping and fishing area was situated between the present day Richardson Park and Mill Point (*Gareenup*) and this area was referred to as *Booryulup* or the place of the *booryul* or magic people (Collard *et al*, 1996). This area has since been covered by the Kwinana Freeway. The area stretched for approximately one and a half kilometres of foreshore and 150

metres into the bushland to the east of Melville Water. Today the foreshore reserve is called *Milyu* which is an Aboriginal but not Nyungar word for samphire. Further south along the foreshore is the place of the frog holes or *Gooyagarup*. The Como foreshore was a place for digging holes or *Beenabup* (Collard *et al*, 1996). Nyungars referred to the area of rushes near Millars Pool as *Goorgygoogup* (Collard *et al*, 1996). The South Perth foreshore side of Perth Waters is known by Nyungars as *Gaboodjoolup* or 'the place of the shore'. Further east is *Joorolup* or 'place of the jarrahs' (Collard *et al*, 1996).

It is recorded (Bates, 1992) that Nyungars would camp in the South Perth area when the *beere* or banksias were flowering and extract honey from the blossom. A spring which was on the Melville Water side of South Perth was widened by the Nyungar at this time of year and blossoms were left to ferment in the water. The fermented drink was then consumed as part of this special occasion.

After colonisation, one of the earliest recordings of Nyungar presence in the area occurred when a party of thirty men from the *Bidjareb* (Pinjarra) Nyungar attacked Shenton's Mill. The leader of the party, Gcalyut, was later jailed (Joynt, 1972).

During the 1850s, there were violent confrontations between Nyungars and the very small white population in the area. In 1847 E.W. Landor commented on these confrontations as : 'a little well- timed severity, and a steadily pursued system of government, soon reduced them into well-conducted subjects of the British Crown' (Crowley, 1962). After this time, a camp near the present day Causeway was established and occasionally Nyungars would use the South Perth area (Florey, 1995). During the 1930s and 40s the Parfitt and Pickett families, among others, lived here. At this time other families visited the area to catch prawns, bees, fish and crabs (O'Connor *et al*, 1989).

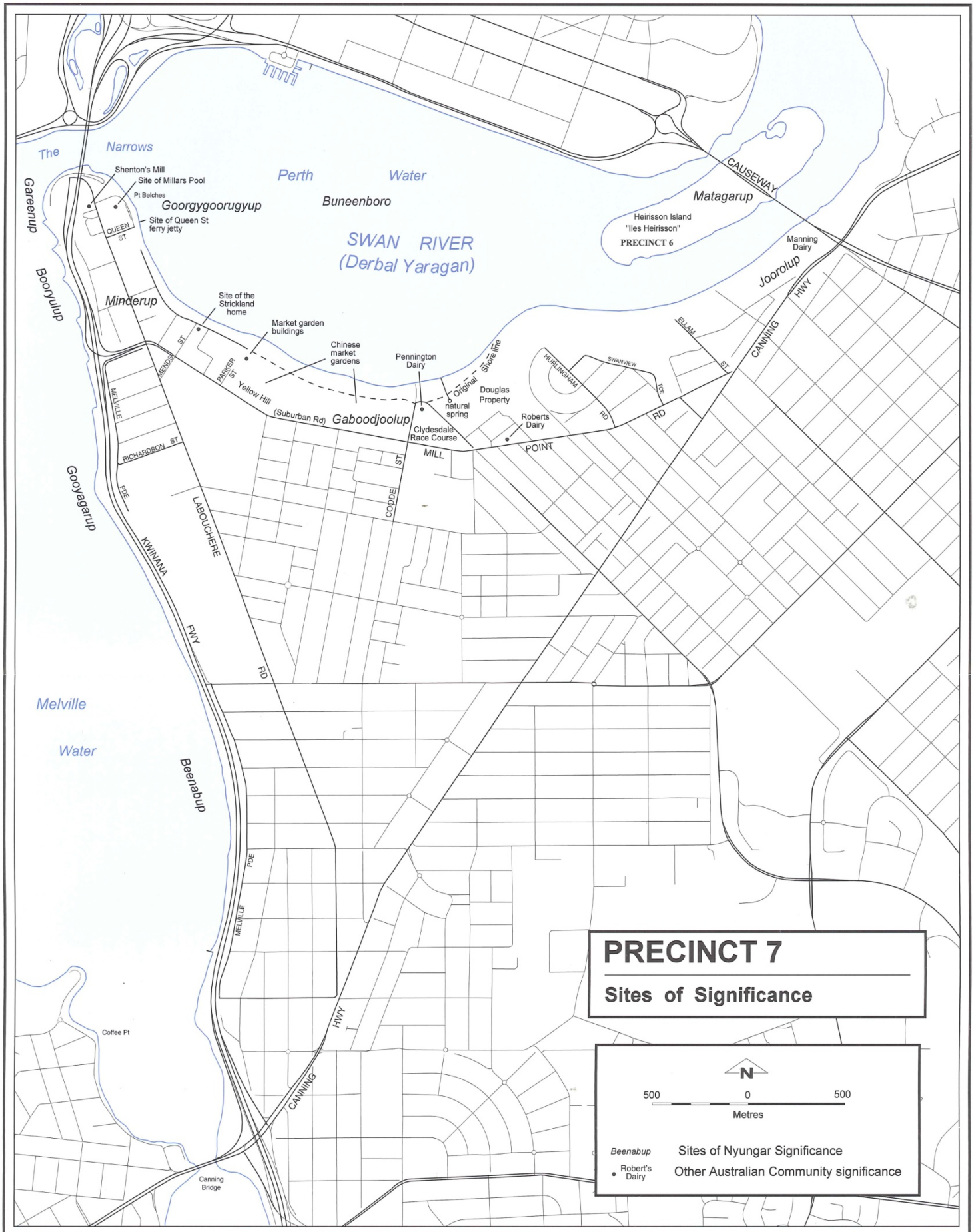
Other significance

The Old Mill built by William Shenton first in 1833, has become the landmark most associate with South Perth. The Mill has been threatened several times in its history. In 1835 it burnt down and was rebuilt later that year with Governor Stirling laying the new foundation stone. The mill ground wheat up until the late 1850s and approximately 30 years after its closure T. Brown attempted to turn it into a picnic resort. This venture was not particularly successful. However the mill has now been restored to its original condition and can be viewed by freeway drivers and visitors to Point Belches.

At Sir James Mitchell Park there is a commemorative garden and flag pole which was built for the 150th Birthday Celebration of the

Precinct 7 - South Perth - Canning Bridge to the Causeway

State in 1979. The park was only named after Sir James Mitchell in 1950 when it was decided by the South Perth Road Board to use the area for sporting groups.



Landscape Description

Conservation areas

The Perth Zoo is vested in the National Parks and Nature Conservation Authority and listed on the Register of Heritage Places.

Wetlands

The Swan Estuary Marine Park Management Plan has been prepared by CALM and Department of Environmental Protection for the Milyu Reserve.

System 6

M60 Aquatic Reserve, South Perth

It was recommended that the tidal flats immediately to the west of the Kwinana Freeway, South Perth be incorporated into a management plan. The vegetation consists of sedgeland and reeds. The area is one of the only three significant wading bird habitats remaining on the Swan River. These are an important feeding and resting ground for trans-equatorial migratory birds. The reserve is now being incorporated to the Swan Estuary Marine Park and adjacent CALM Reserves Draft Management Plan (1995).

Precinct Description

Waterform

The southern section of Perth Water is a wide basin which bends around Point Belches to a gently concave shaped bay. The water surface is always a pleasing landscape feature in this section of the river as the enclosed form is subject to prevailing weather conditions which are reflected in water surface condition. The water body narrows with a gently convex point adjacent to the Hurlingham Street, and the river is divided into two by Heirisson Island. In contrast to the gently curved foreshore at South Perth, Melville Water has a eastern foreshore which is a straight north-south orientated beach. The water body is subject to strong prevailing winds and the viewer is presented with the wide basin that stretches between Crawley, Kings Park and Applecross.

Natural riparian zone

The Como foreshore is a narrow white sandy beach which has been dramatically reduced in width since the construction of the freeway. Much of the beach backs onto grassed banks or a small limestone retaining wall. There is a sandy bank adjacent to the Royal Perth Golf Course which is often exposed at low tide. This feature connects to the fringing vegetation at Milyu Reserve. Along Como the beach is quite steep and narrow compared with the wide gently sloped beaches shown in photos previous to the Freeway construction. The only unwallled foreshore at South Perth is west of the Coode Street Jetty. This is a narrow sandy beach with large oyster shells a significant part of the sediment material. The high tide water action has created a small cut into the shelly bank which is held in place with kikuyu grass.

Landform

The South Perth precinct forms a gently undulating plain. The edge of the central hill fronts onto the South Perth Foreshore, an area referred to as 'Yellow Hill'. This has a comparatively steep embankment in contrast with the flat platform like foreshore. This flat plain is partly the result of many infilling projects along the river. The foreshore area is saved from a monotonous morphology by the artificial lakes and tree planting in the area.

Vegetation

The foreshore vegetation is predominantly exotic species, but a few enclaves of native flora exist. The Milyu Reserve has narrow band of native species including several young Sheoaks which have dark green wispy forms which rise above the low uniform height of the bushes. The reeds are also long needle like forms which extend into the shallow water. Adjacent to this enclave are four very tall cotton palms which are somewhat out of place and

have no association with any understorey or river feature.

As individuals they are quite impressive, however the adjacent freeway light poles and overpass detract from their attractive linear form.

The Como Jetty area has several flame trees which provide the seasonally bright colours of deciduous plant and several bushes are planted around the foreshore toilet block. The lawn is well maintained and reaches down to the high water mark, however the narrowness of the reserve has limited the planting of more trees and shrubs.

At the South Perth peninsula there are several formal rose beds and well maintained lawn to the limestone retaining wall. The Mends Street jetty has several mature plane trees and small cotton palms which have been planted in a formal pattern and the lawn is well maintained. The South Perth foreshore near 'Yellow Hill' has a few stands of mature paperbarks. These have substantial amounts of kikuyu grass beneath them which is unfortunate as the trees themselves are very attractive. The South Perth City Council has embarked on landscaping the area with native species and has successfully used the vegetation to minimise the impact of the car parks and buildings. The dual use path user also experiences the contrast between walking through planted native gardens and open grass areas. The man made lakes have native riparian vegetation, as well as several cotton palms and flame trees. The plants are spaced in a 'parkland' manner. Several date palms are present along the Hurlingham Road foreshore area. These are fine individuals and it would be of benefit to plant more palms or other tall trees to make a feature of trees along this point. McCallum Park has several mature exotic trees and the area has been completely transformed into parkland.

Riparian land use

The Como Sea Scouts are the only remaining club on the Como foreshore. They have a small clubhouse which is surrounded by bushes and is fairly inconspicuous. The area once supported the South of Perth Yacht Club and Como Baths. The Como Jetty has recently been upgraded and the Council has provided public toilets, picnic tables and play equipment. However the recreation node is fairly narrow and only metres away from the freeway, the two areas separated by a cyclone wire fence. There are several limestone groynes which have been built to reduce sediment transport around the South Perth peninsula. The result is the classic beach build up on one side of the groyne and little sediment at the other end. These white sandy crescents are a prominent feature from Kings Park, while to the South Perth foreshore user the shape of the beach is a less dominant feature.

At South Perth the Queen Street Jetty is occasionally used for fishing. The Mends Street Jetty still provides a link from the city to South Perth. The service is mostly used by recreational users although a small number of people use the service to commute to the city. The City of South Perth has recently allowed a kiosk development to be built adjacent to the Wesley Boat Shed. The new building is of a wooden boat shed style and has corrugated metal gabled roof. The building is in keeping with the water based use of the area, and other adjacent features, such as the picnic table shelters, have been kept in the same design. The amenities at Hurlingham Street have also been kept in a similar conforming and discreet design.

The Swan River Trust and the Fisheries Department have their field station located at Ellam Street. The several sheds and equipment are fenced off and surrounded by native bushes which reduce the impact of the site. The area is fenced right down to the foreshore wall; however the jetty is still accessible and is a popular fishing spot.

Land use

The dominant land use at Como is the Kwinana Freeway which is heavily used at all times of the day. The freeway has seven lanes and a car over pass at Judd Street. The river is accessible to dual use path users by four pedestrian overpasses. Behind the freeway there are several townhouses and units which apart from a few single bungalows are the dominant form of residential development. A prominent feature along Melville Parade is the Pagoda which has a 1940s style and a large advertising sign on the roof. (This has since been redeveloped). There are several motels, restaurants and retail complexes along Melville Parade which can only be seen from the freeway and the pedestrian overpasses.

The South Perth peninsula is dominated by prime real estate apartment blocks. These are approximately ten storeys high with modern' light coloured designs. The apartments on 'Yellow Hill' have a skyscraper effect with a much taller construction and an older style. Along the rest of Mill Point Road several new townhouse dominates the residential area. These have modern styles from the 1980s onwards and mix in with the adjacent older post war bungalows. The area has several leafy trees which give the impression of a well settled suburban area. Along Swanview and Farland Streets, there are several new houses which front onto the river foreshore. These are built in a quite imposing style and many have high walls which front onto the parkland area.

Landscape Interpretation

Dominant Landscape Character

The dominant landscape character for the South Perth foreshore is a man-made urban character. The original natural landscape character types has been altered by clearing of the bushland for suburban development and infilling the foreshore. The foreshore area between the Causeway and Canning Bridge can be considered as a parkland character type which suggests that it is used for recreation purposes and has been greatly modified from the original landscape. On the northern section of the precinct there are relatively large areas of open space with the occasional cluster of trees and man-made lakes. Recreational amenities have been provided. The backdrop is the Suburban Character Type of the main South Perth area. The narrow section of cycle path and beach at Como can also be considered as a parkland character type, due to the formal lines created by the beach walling and recreational jetties. At Milyu Reserve, there is a narrow band of regenerated fringing vegetation which could be considered as an natural. The land from the Kwinana Freeway and westwards is of an urban/suburban landscape character type.

Significant Viewscapes

There are several significant viewscapes from the South Perth foreshore to the Perth city centre and Kings Park. These viewscapes are mainly framed by individual or clusters of trees which help to frame and soften the view of the city. They also create an expectation of what is behind them which adds interest to the view. From the river the view of the South Perth peninsula is attractive and the high rise buildings link the city land use to the South Perth foreshore. From Coode Street the urban land use is flatter and lower with the trees from the suburban gardens covering most of the forms. The landform gradually rises from the foreshore which gives this view a sense of depth.

From the Kwinana Freeway and cycle path there are spectacular views of Kings Park and Melville Water. This wide view is limited by the freeway and the tall buildings on Point Belches, however by standing on the foreshore or pedestrian overpasses a commanding stretch of the river can be viewed. From the river, the view is a relatively flat suburban landscape. The few trees along the foreshore are important features from the river as they screen the freeway and a rather ordinary suburban landscape. The Como Jetty is an important element in the view as it links the urban landscape to the river form.

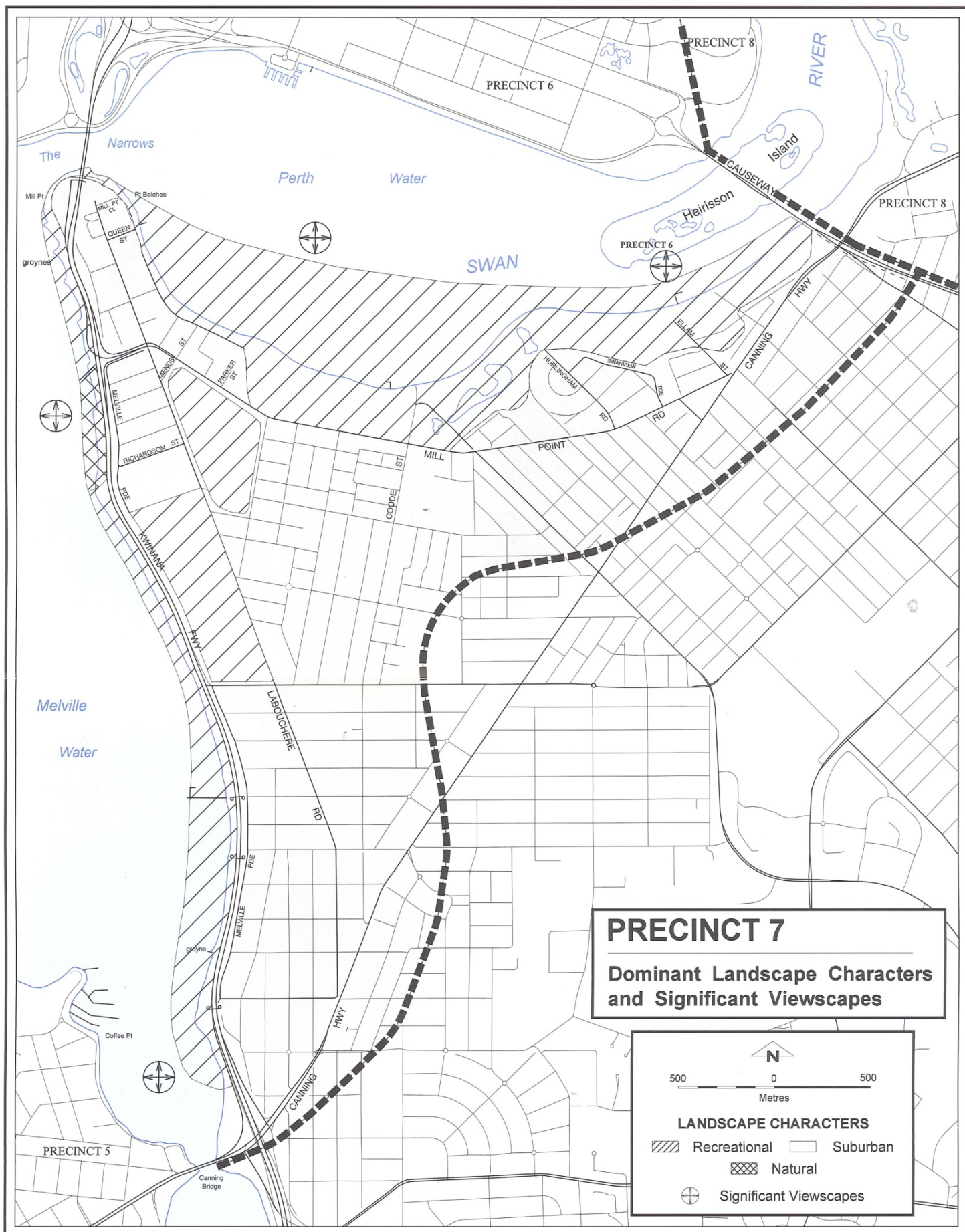
Conforming and Non Conforming Elements in the Landscape

The Kwinana Freeway greatly detracts from the Como foreshore landscape. It is indeed unfortunate that such a significant stretch of the river has been given over to such a noisy and polluting land use. However the freeway plays a very important transport role and is now a permanent feature of the area. The challenge is to reduce the impact of the freeway on the foreshore.

The median strip along the freeway could consist of well maintained natural flora. Local species are not only attractive, but are particularly suitable for the harsh conditions of the adjacent freeway and require little watering. The freeway reserves require regular rubbish removal and users should be encouraged not to litter the reserves. The South Perth City has recently planted grasses, roses, rosemary and *Agapanthus orientalis* at the Judd Street turn off. This is not in keeping with the rest of the native flora planted along the freeway reserve, however it may be argued by the council, that the freeway turn off is the gate way to the South Perth City and the gardens are indicative of the old suburban nature of the area. These gardens will require high maintenance and weeds tend to grow through the woodchip ground cover.

The Milyu Nature Reserve while environmentally significant it is also a very limited and narrow section of 'natural' landscape adjacent to the Kwinana Freeway. Its presence is a positive element in the landscape. The revegetated reserve appears as a natural landscape and is important in reducing the visual impact of the freeway on the riverine environment. The reserve has sheoaks and sedges which have an attractive form and provide a habitat for water birds who use the adjacent shallow. There is opportunity to retain, conserve and even extend this positive element in the precinct.

The man-made lakes at Sir James Mitchell Park are feature of the foreshore and attractive to local residents. From certain angles the viewer is presented with two water bodies, the flat wide enclosed forms of the lakes and the broader form of Perth Water. These views are particularly pleasing and should be conserved. The many melaleucas and flooded gums which are on the foreshore are attractive elements for several reasons. Not only are they reminiscent of the original vegetation and have attractive forms and habitat value. In addition, they also frame views of the Perth Water. The trees create an expectation of what is behind them which adds interest to the view.



The car parking in the precinct has been well addressed. The council has planted trees in a way which reduces the impact of the area and also provides shelter. This policy should be encouraged. At the Hurlingham Street car park and adjacent to the Mends Street car park are two remnant stands of flooded gum which should be retained for their visual amenity as well as their ecological significance.

The development at the Coode Street area is visually congruous with the adjoining buildings and the riparian nature of the development. It is important that the low impact development of the foreshore be maintained and any further development in the area be considered carefully.

Walling of the South Perth foreshore has created a comparatively uninteresting and formal border between the river and the parkland. Future planning decisions may consider how to improve this landscape element.

The South Perth foreshore skyline has several tall buildings which are consistent with the urban environment in the area, however if in the future further tall buildings are proposed, their location and suitability to the landscape character need to be carefully examined. The Old Mill at Point Belches is a significant landscape feature.

Recommendations for Maintenance and Enhancement of the Present Landscape Character

Several opportunities may be considered including

- The question arises whether the planting of dense native scrub along the freeway reserve should be encouraged. This would reduce the noise and improve the appearance of the freeway to the foreshore users, however it would restrict the river view of many commuters who find the view of the river a pleasant distraction on the drive to work.
- The natural landscape character and the environmental sensitivity of the Milyu Nature Reserve need to be preserved. It is recommended that the regeneration of native flora here be encouraged. It would be ideal if the area could be extended between Mill Point and Como beach which would not only act as a larger nature reserve but also a buffer to the freeway. The natural flora would enhance the view of the river to the river user and those using the freeway.
- To enhance the present parkland landscape character the provision of shallow banks on the lakes and planting of native riparian species could be encouraged to provide a natural edge and also a habitat for birds.

The Swan River Trust (1994) supported the idea of encouraging black swans back to the area by ensuring that the water quality of the lakes is high and relatively fresh for most of the year. Provision of natural habitats and islands in the lakes would provide suitable nesting sites for the swans. The Melaleuca stands in the area would benefit from the removal of the kikuyu grass and re establishment of natural understorey.

- Access to and amenity of the river would be improved by having more naturally sloped gabion walling which would encourage beach build up. The groins at Mill Point could slowly be replaced by planting natural riparian vegetation, or at least encouraging the vegetation to grow against the groynes which soften their appearance.
- Consideration should be given to the impact of tall buildings on the river landscape. If the result is a single building emerging from a relatively flat landscape should be discouraged.
- Acknowledgment of natural landscape, local significance and history could be incorporated into the area by having a heritage trail.

Precinct Specific References

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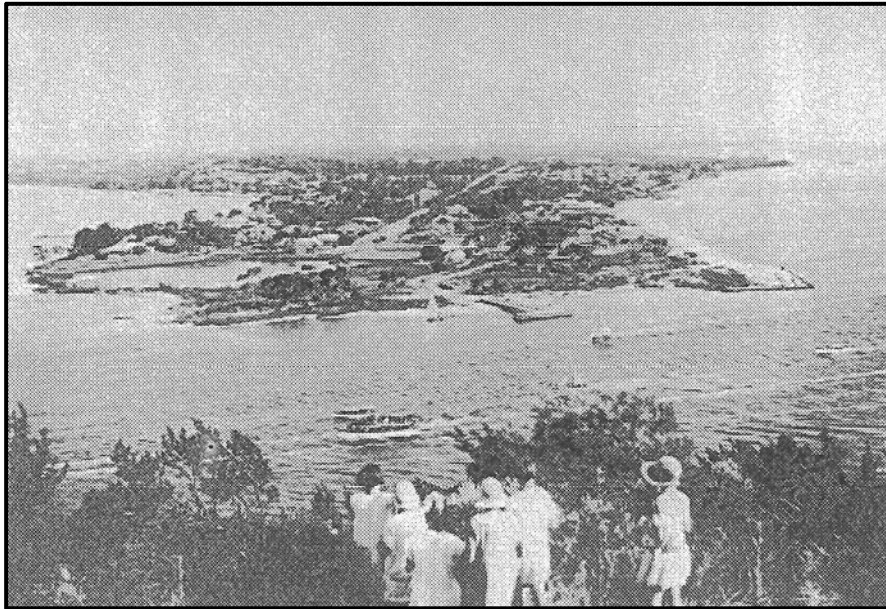
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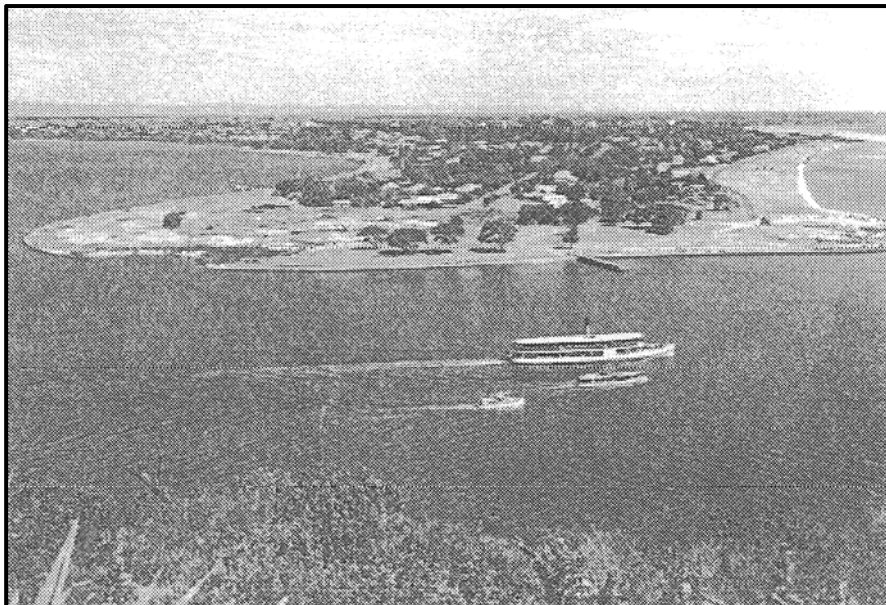
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Mill Point from Kings Park, c1932.

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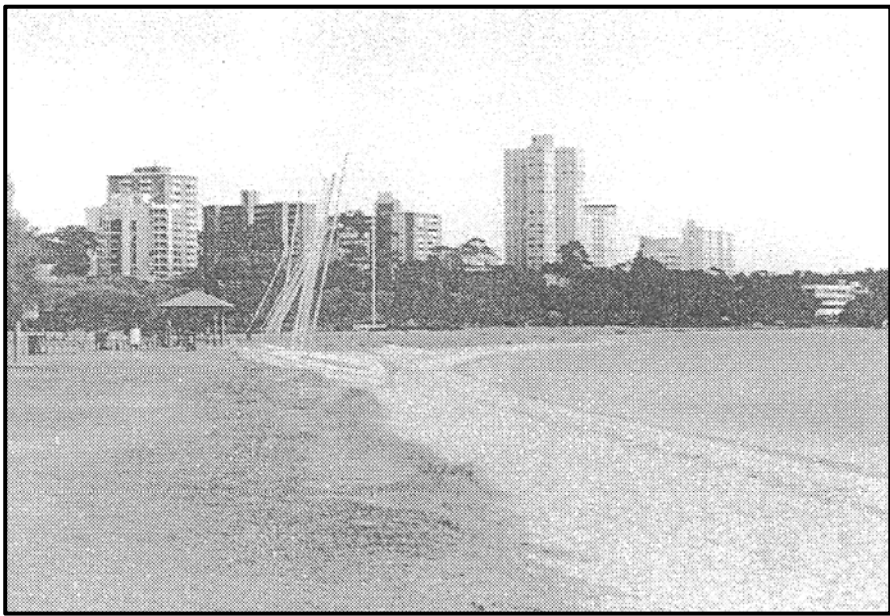


Mill Point from Kings Park, c1950.

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Mill Point from Kings Park, 1997.
Swan River Trust.



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