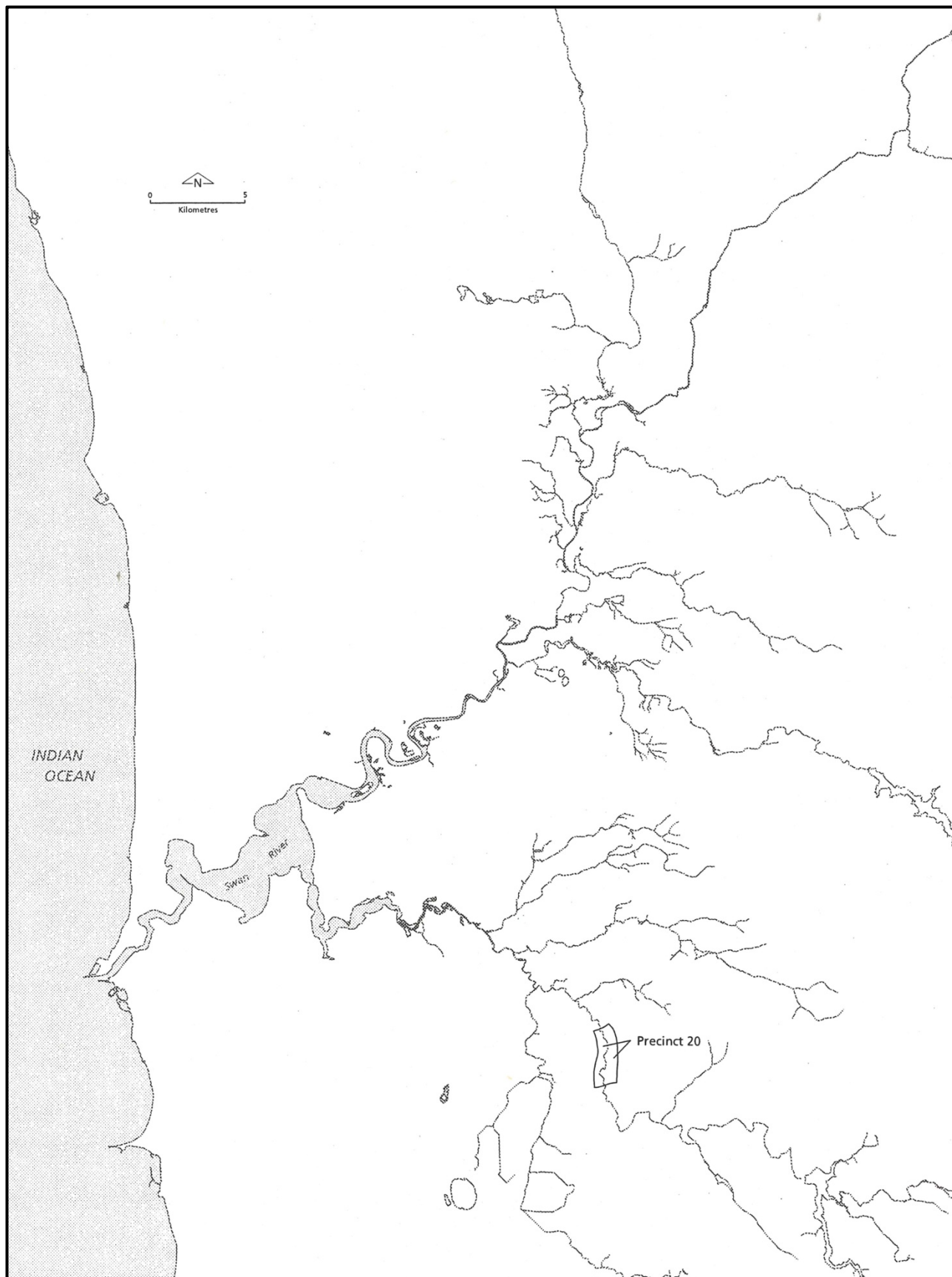


Canning River – Tonkin Highway to Turner/Brookside Footbridge



Summary

Canning River – Tonkin Highway to Turner/Brookside Footbridge

The Canning River meanders irregularly downstream towards Tonkin Highway in the form of a narrow and shallow channel. The river is quite uniform in width for most of this precinct and has an almost vertical embankment of clayey red alluvium above the river Channel. The fringing vegetation is a flooded gum - paperbark complex which due to clearing has been reduced to a narrow belt along the river channel.

There is an abundance of weeds which form a dense understorey in the disturbed riparian vegetation community. The precinct is part of the palaeo alluvial fans in front of the Darling Range and the landform is gently undulating, flat topography on the western river bank. The eastern bank becomes quite hilly with several steep gravelly slopes.

There are two pedestrian crossings within the precinct both of which are functional but are associated with service infrastructure, such as pipelines and powerlines. The adjacent vegetation is also infested with weeds giving the area low aesthetics.

There are several small residential blocks in the area, however most properties are long narrow horticultural blocks which stretch from the road to the river. There is also a large proportion of land owned by the Salvation Army who provides residential support for senior citizens and a rehabilitation centre adjacent to the river.

Biophysical Processes

Geological Processes

The precinct is included in the Guildford Geological Formation which consists of sandy clays and clayey sands, and also includes other alluvium and colluvium. The formation consists of mixtures of sand, clay and conglomerate. The unit is of fluvial origin but includes estuarine and marine intercalations near its base. East of the river there are pockets of the Yoganup Formation which is leached or ferruginised beach sand and conglomerated dunes. This is believed to have been deposited in the Quaternary period as a fore or beach dune under active surf conditions.

The river channel and flood plains are part of the Swan Association red podsolic and undifferentiated alluvial earths and duplex soils. On either side of the riparian soil association, is the Forrestdale Soil Association. This is composed of the gravelly and sandy soils of the laterised foothills of the Ridge Hill Shelf.

Topography

The river is part of the Pinjarra Plain which consists of unconsolidated fluvial originated sediments. The Ridge Hill Shelf is located in front of the Darling Scarp. The shelf formation consists of palaeo alluvial fans which have formed in front of the Darling Scarp by fluvial processes.

Hydrological Processes

Water features

The river takes the form of irregular meanders within this precinct. The channel is reasonably uniform in width with only a slight broadening at the meander bends. The river cuts through the red alluvium forming steep embankments of approximately two metres in depth. Adjacent to the channel is a narrow flood plain area which quickly rises to meet the undulating sandy plain.

Bathymetry

The channel is quite shallow with a depth of less than one metre. The river is entirely fluvial and there are several shallow narrow tributaries which drain the surrounding land.

Flooding

There is a narrow flood plain although most of the area is not subject to seasonal inundation or the formation of damplands.

Erosion and accretion

There is severe erosion of the valley embankment where the main river channel has collided with the edge of the river valley at Pries Park. Tree roots are exposed just upstream of Manning Avenue Footbridge. There are several points of erosion and siltation along the stream between McKenzie Grove and Pries Park Road. There is some erosion due to the effects of grazing livestock on the western bank upstream of Centre Road (Day and Pen, 1991).

Vegetation Communities

Native

Swan Complex

The indigenous flora of this precinct is classified as being as part of the Swan Complex (DCE, 1980).

The vegetation ranges from fringing woodland of flooded gum (*Eucalyptus rudis*) and swamp paperbark (*Melaleuca raphiophylla*) with localised occurrence of low open forest of sheoak (*Casuarina obesa*) and saltwater paperbark (*Melaleuca cuticularis*). The various communities which make up this complex are described below.

Eucalyptus-Melaleuca communities

The *Eucalyptus rudis-Melaleuca raphiophylla* low open-closed forest is found fringing the Canning River in this precinct. Few indigenous understorey species remain, and the dominant understorey species include the large exotic shrub *Asteria fascicularis* and variable leaved grevillea (*Grevillea diversifolia*) which occur particularly towards Brookside Avenue. In many areas the riverbanks have been cleared of riparian vegetation and replaced with pasture or else the understorey has been removed and the land converted to pastured woodland.

Eucalyptus communities

The vegetation on the hills behind the river communities is remnant marri (*Eucalyptus calophylla*) and jarrah (*Eucalyptus marginata*) tall open forest formation which provides an attractive background to the river environment. The understorey is less disturbed compared with the river complex and there is an abundance of blackboy (*Xanthorrhoea preissii*) and hibbertia (*Hibbertia* sp.).

Exotic

There are several prominent weeds along the river bank including the castor oil bush (**Rhinus communis*), bulrush (**Typha orientalis*), giant bamboo (**Bambusa* sp), willow tree (**Salix* sp), Japanese pepper (**Shinus terebinthifolius*), blackberry (**Rubus* sp) and edible fig (**Ficus carica*). There are several citrus orchards within the area.

Historical Land Use and Resulting Environmental Changes

The area has been historically used as pastoral land and this has resulted in the Clearing of the native vegetation (McDonald and Cooper, 1988). Many orchards were established on the relatively rich soils and some of these remain today.

Present Land Use and Social Patterns

The Harry Hunter Rehabilitation Centre is located on the northern side of the Canning River and is secluded by bushland. On the opposite bank the Seaforth Senior Citizens Centre run by the Salvation Army is a series of single storey units. Adjacent to the rehabilitation centre is a block of bushland being the site of a proposed crematorium.

There are several large rural blocks which stretch to the river foreshore. These are used as rural residential lots, horse paddocks and small orchards. There are several citrus orchards within the area, the larger of which are just south of Tonkin Highway and in line with Lake Road on the western side of the river. Behind Cunnell Avenue are small residential blocks which have been formed as the result of subdividing the larger original blocks.

Recreation nodes

There are several recreation nodes within the area. Pries Park is the largest area and has facilities for a soccer club, pony club and other organised sports. Quarry Park is on the corner of Cockram and Mills Roads and has a shallow creek and barbecues in shaded grass areas. Wright Brook Regional Park is adjacent to the study area and has significant conservation and educational value.

Public access

Public access to the river is limited to the Manning Road and Turner Avenue pedestrian bridges. The majority of the land adjacent to the river is private and fenced right down to the fringing vegetation line which makes it difficult to access.

Sites of Nyungar & Wider Australian Community Significance

Nyungar significance

The Beeliar and Beeloo or river people are believed to have considered this section of the Canning River as part of their run (O'Connor *et al*, 1989). The Beeloo considered north of the Canning River (*Dyarlgarro*) to the hills as part of their ground while the Beeliar mainly traversed the southern section of the river to the sea.

Other significance

There was a traffic bridge at Turner Road until 1981 when it was demolished and replaced with a new pedestrian walkway (McDonald and Cooper, 1988).

Conservation Areas

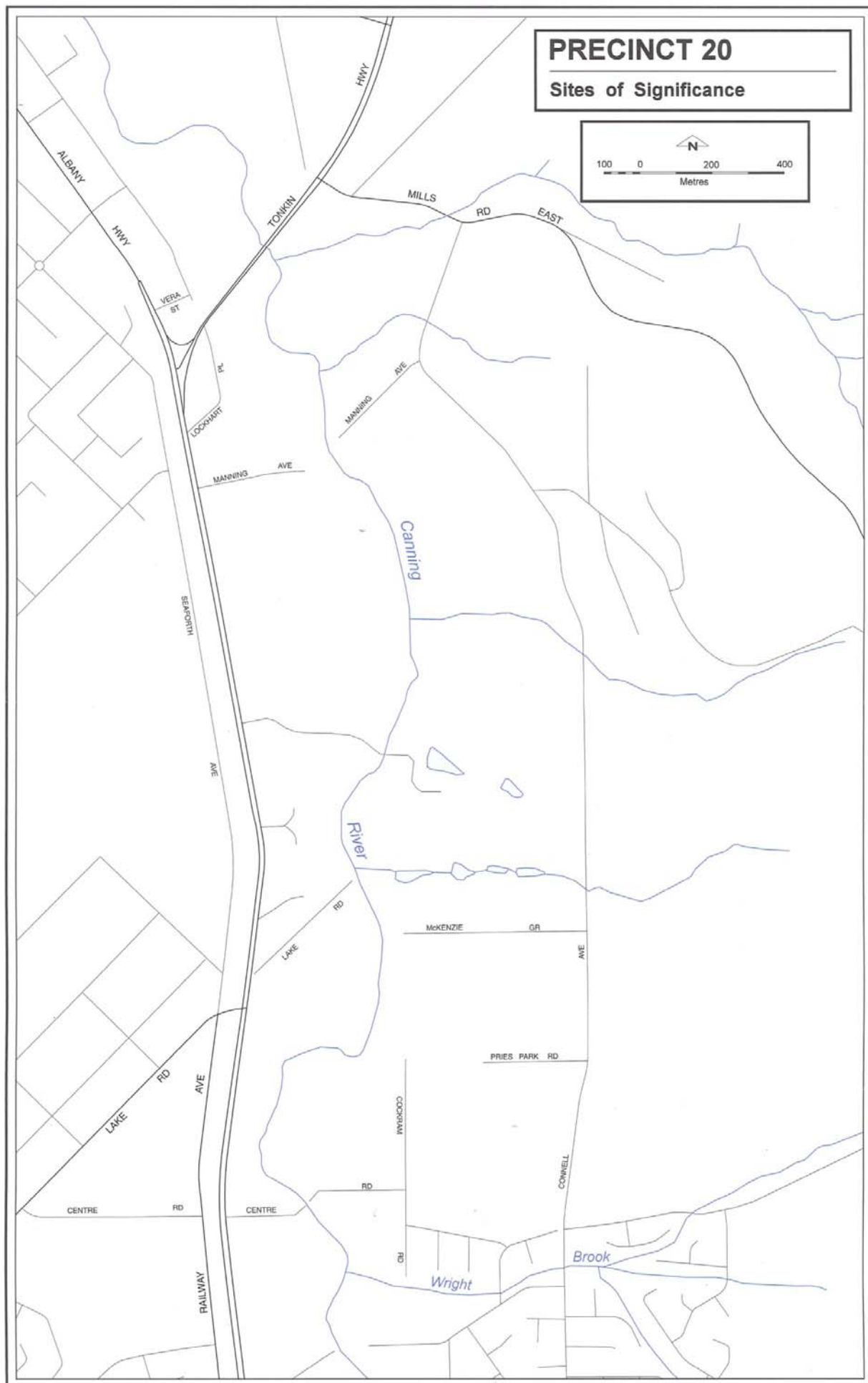
Wetlands

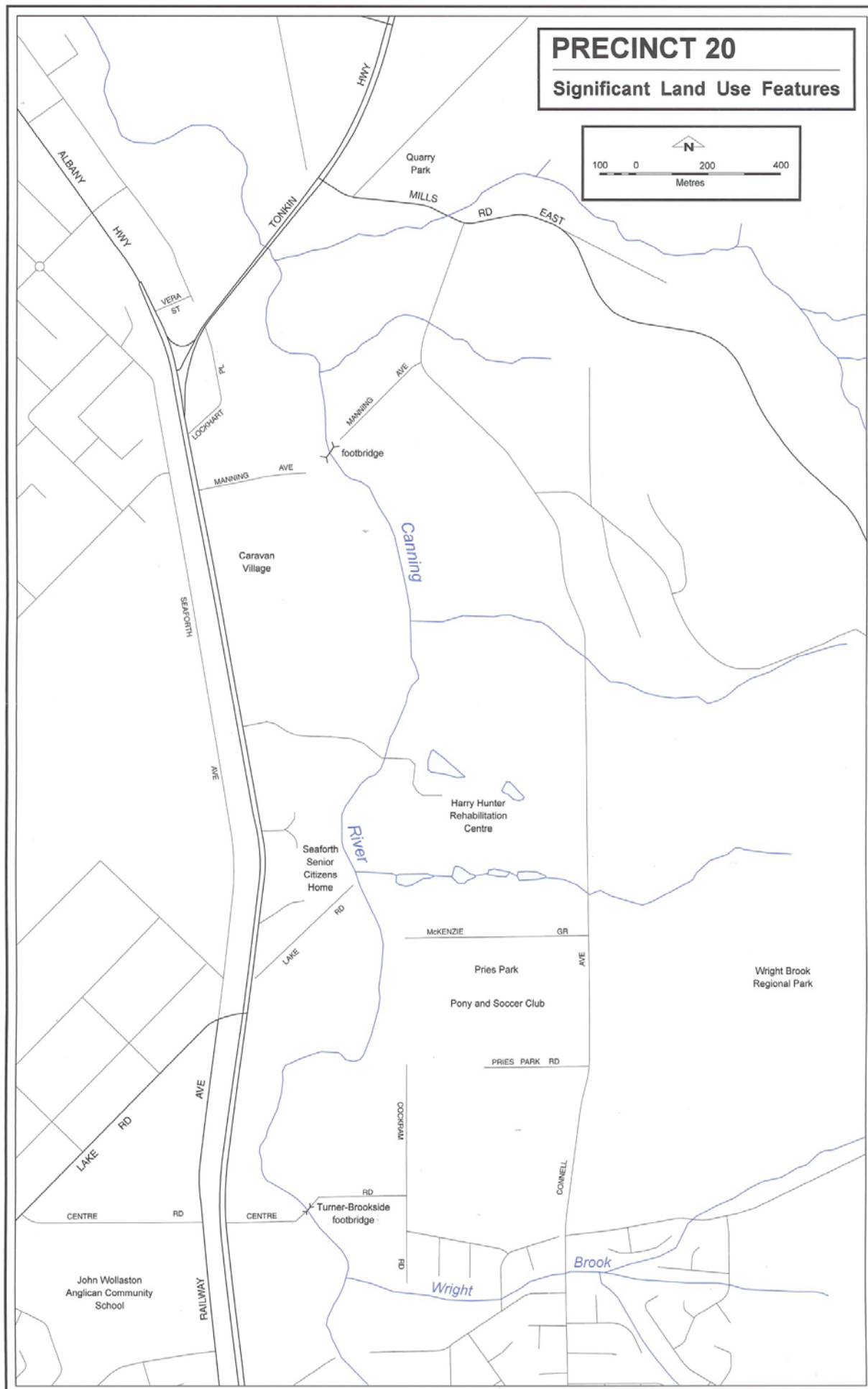
The section of Canning River in this precinct has been identified as a multiple use management category by WAWA (1993). These wetlands are perceived as having a significant number of ecological, hydrological and social functions and are recommended to be considered in the context of 'sustainable' catchment management. It is recognised that these cleared woodlands and grasslands provide valuable pasture for grazing and also support bird feeding and breeding grounds.

System 6

M75 Upper Canning and Southern Rivers

The recommended area comprises the Canning River and its fringes from Nicholson Road to the boundary of the State Forest, together with those parts of the Southern and Wungong Rivers within the City of Gosnells. Much of the area is reserved for parks and recreation under the Metropolitan Region Scheme. The river is well fringed with flooded gums and paperbark although the ground flora has been almost eliminated by grazing and clearing. The area is significant for its open space of regional significance and its proximity to Perth's residential areas. The recommendations include encouraging the growth and regeneration of flora and fauna and preventing vehicular access while allowing low impact access to the river.





Landscape Description

Precinct Description

Waterform and natural riparian zone

The river takes the form of a narrow and shallow channel which in parts has almost vertical embankments through the red alluvium. The steep embankments and restricted flood plain are generally vegetated with weeds. There are several tributary streams entering the river. The larger tributaries are the Quarry Park Stream and Wright Brook which run through the Harry Hunter Rehabilitation Centre. These streams are narrow shallow channels which are fringed by vegetation until the edge of the channel embankments. The stream embankments are generally void of vegetation and the red colour of the alluvium is exposed on their steep sides. The streams form pool and riffles where the laterised bedrock is exposed.

Landform

The precinct is part of the alluvial fans in front of the Darling Range and as a consequence the landform takes a gently undulating flat topography on the western river bank, while on the eastern bank the land becomes quite hilly. The eastern bank around Wright Brook Regional Park has several steep gravelly hills which give way to a flat sandy bank before the river. The Darling Range acts as a dramatic backdrop to the relatively flat landscape.

Vegetation

The vegetation along the river channel continues to be the flooded gum and paperbark complex. Most of this has been cleared except for a line of vegetation along the river and the understorey consists of a dense mat of weeds. There are few areas of uncleared land, however near Cockram Road and Wright Brook there is an area of remnant marri and jarrah tall open forest community which provides an attractive background to the river environment. The understorey is less disturbed compared with the river complex and there is an abundance of blackboys and hibbertia. Unfortunately, part of the Cockram Road bushland has been recently burnt which has temporally reduced the scenic quality of the vegetation.

Riparian land use

Manning Road pedestrian bridge is an unattractive feature as it is graffitied and has wide exposed concrete abutments. Adjacent to the pathway is a concrete half drain which guides stormwater into the river. A large silver water pipeline runs parallel to the bridge and has a wire fan shaped barrier to prevent people climbing on the pipe. There is a light pole and pine bollards which also add to the clutter of amenities.

On the eastern bank is the very tall metal main distributary power line which dominates the skyline. The pedestrian bridge area becomes a node of service infrastructure and due to the abundance of weeds within the fringing vegetation is an unattractive viewscape.

The Turner Place pedestrian bridge is a simple narrow concrete superstructure with of steel wire with metal hand rails. The abutment is made up of local red rocks and there are small steps cut into the rock allowing access to the river channel. There are two service pipes which cross the river adjacent to the bridge.

Land use

The houses south of Tonkin Highway are on large blocks and they all have a semi rural feel created by informal gardens, vegetable patches and rural-styled wooden and wire fences. South of Manning Road the blocks become long narrow pieces of land which front onto the river. These are mainly used as paddocks and orchards. Many of the properties have small informal shops or sheds adjacent to Albany Highway from which fruit, vegetables and flowers are sold and these provide a rural character to the area. Several plant nurseries are located along the highway.

The Salvation Army owns land on the western and eastern banks of the Canning River. They have the Seaforth Senior Citizens Centre and the Harry Hunter Rehabilitation Centre. Both of these have neat modern housing units which are built away from the road and close to the river. The Senior Citizens Centre is mainly devoid of trees, however there are some gardens around the complex which are well maintained and have a colourful display of flowers.

South of the Seaforth Centre is a caravan village which has mature local and non indigenous gum trees planted for shade. The caravans are mainly occupied by permanent residents and therefore many have small gardens around their lots. The caravan park has lawn up to the thin line of natural riparian vegetation.

There is a small housing development around Ciro Road which was established in the 1980s. The houses are on small blocks and are generally neatly maintained. The end properties face onto Wright Brook.

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Pries Park has facilities for several sporting groups. Kelmscott Pony Club at the end of Cockram Road is 'Strictly Members Only' and has several paddocks with equestrian equipment in the fields. Much of the vegetation has been cleared and the main field is very sandy. On the rise of the hill are two ovals and clubhouse. The clubhouse has several sponsors' signs on the walls. The area is well fenced and it is difficult to access the river.

Quarry Park is a small recreational park created by a local quarry company. It is open to the public during the daytime, however is closed during the evening. The park has a small creek and the land that was once cleared has had several trees replanted to create a parkland effect. The park has barbecue and play equipment facilities.

Landscape Interpretation

Dominant Landscape Character

This precinct is dominated by a rural landscape character. There are many relatively large blocks which are being used for orchards, horse agistments and small market gardens. These properties have been cleared of the indigenous vegetation, except in some cases where a very narrow ribbon of riparian vegetation remains. There are several large blocks which are only being used for residential purposes; however these have the appearance of a rural land use, due the low building density.

Increasingly, the large blocks have been subdivided for relatively high density residential developments. These pockets of suburban landscape are characterised by modest style houses and eclectic gardens. There are several retirement complexes in the area, the largest being the Seaforth Senior Citizens Centre on Albany Highway.

There are two recreational landscapes. Quarry Park is generally a passive recreational landscape with facilities for picnics and walks. Pries Park is used for several organised sporting activities which have infrastructure such as equestrian equipment on the landscape.

There is a very thin ribbon of riparian vegetation along this reach of the Canning River. Generally, there is little indigenous understorey as this has been replaced by soft leafy weeds. The Cockram Road bushland is made up of marri-jarrah open woodland. The understorey is in relatively good condition, although increasingly under threat from fire, weed invasion and urban influences.

Significant Viewscapes

From the western bank of the Canning River, the Darling Scarp provides an attractive viewscape. The steep fan shaped fluvial deposits which have formed in front of the elevated Darling Scarp provide a complexity of landform which contrasts with the flat sandy plain on the western side of the Canning River. In addition, there is some remnant eucalyptus woodland remaining on the scarp which provides an attractive landscape element, compared to the suburban and rural landscape of the Swan Coastal Plain.

Conforming and Non Conforming Elements in the Landscape

The Turner and Manning pedestrian bridges are a clutter of service pipelines and other structures. In both cases it would have been aesthetically more pleasing to run the pipes adjacent to the crossings in the same line as the superstructure and close to the bridge rather than several metres away.

Much of the riparian vegetation along this section of the Canning River is in poor condition. There is the opportunity to improve the environmental condition and the aesthetics of the landscape by removing the abundant leafy weeds and grasses and encouraging the regrowth of the attractive flooded gum and paperbark community.

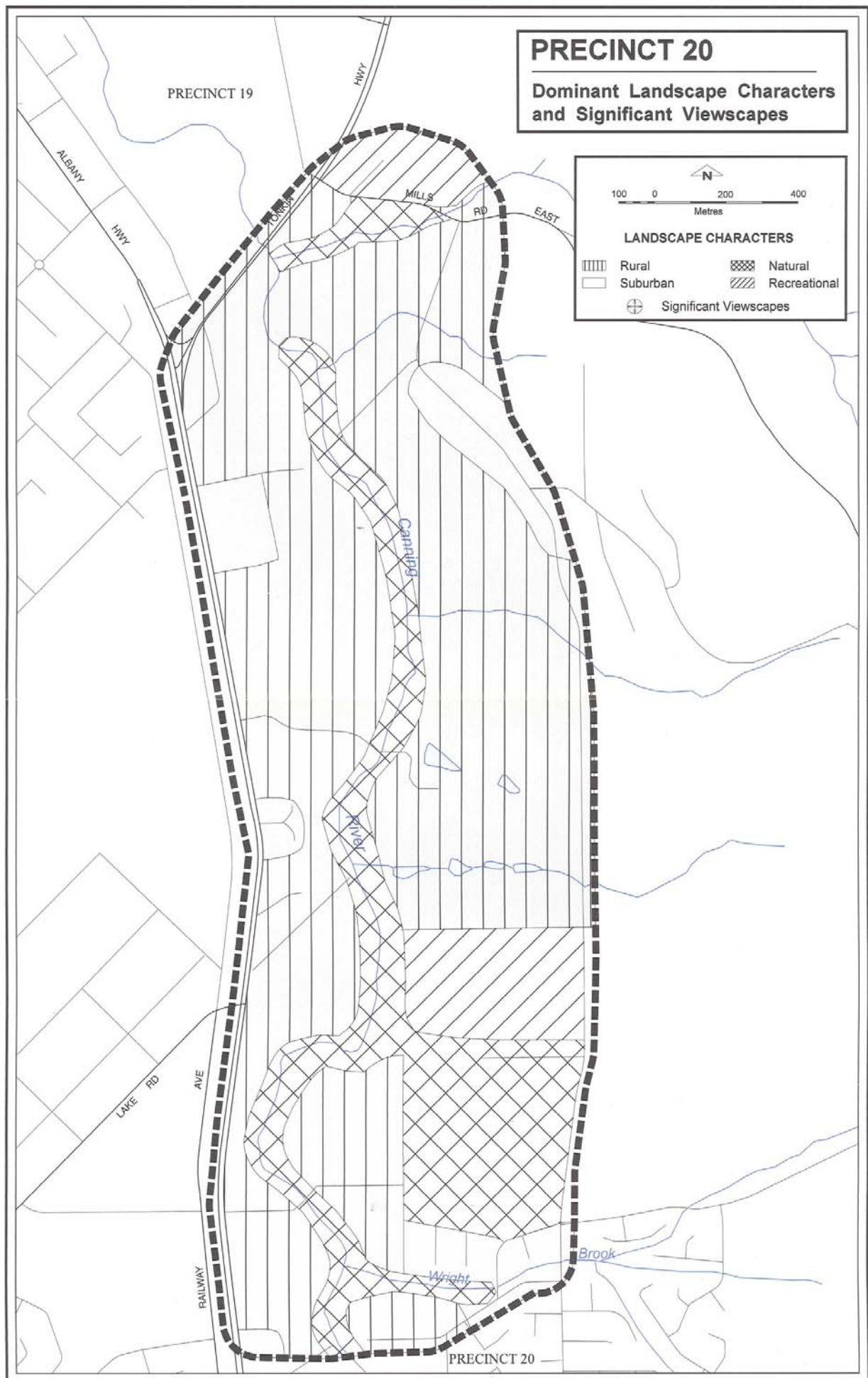
At present, Pries Park is a detracting element in the landscape. The park could be enhanced by planting indigenous species around the edge of the park and improved maintenance of the grounds. At present, there are large advertising signs and rubbish tends to collect along the fence line of the property.

Recommendations for Maintenance and Enhancement of the Present Landscape Character

- Rehabilitation of the riparian vegetation and erosion points along this reach of the Canning River. The area is particularly weedy and the riparian natural landscape needs to be widened to improve the aesthetics of the area.
- Improved maintenance of parklands and other public infrastructure and facilities.
- Improve public access to the riparian area.
- Consider the appropriateness of retaining low density development in some areas of this precinct.
- Ensure that developments have styles which are complimentary to the gently sloping landform.

Precinct Specific References

McDonald and Cooper, W. 1988. **The Gosnells Story**. City of
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Canning River, Cockram Ave, Kelmscott Pony Club, 1997.

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