Department of **Biodiversity, Conservation and Attractions**

GOVERNMENT OF WESTERN AUSTRALIA

SWAN RIVER TRUST

UPPER CANNING

DYARLGARRO

LOCALITY PLAN

March 2022

Ngala kaaditj Whadjuk moort keyen kaadak nidja Boodja

We acknowledge the Whadjuk people as the original owners of this land

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VISION

A healthy river for all, to be enjoyed and shared, now and in the future.

The social benefits, environmental values and cultural significance of the river are respected.

Land use, design and development ensure that the river and its value to the community is protected and enhanced.

INTRODUCTION

The Swan Canning river system is a complex and dynamic natural landscape that extends beyond the river channel. A properly functioning river alters the position of its channels and foreshore, frequently spills over its banks and occasionally occupies its floodplain. The river should be understood as this larger natural system.

The Upper Canning *Dyarlgarro* Locality Plan guides adjacent land use, civic design, and development to ensure that the value of the river and its setting to the community is maintained. The Locality Plan brings together "on" and "off" water considerations to provide guidance for recreation, development, restoration and rehabilitation of the Swan and Canning rivers.

The Locality Plan is to be read in conjunction with *Corporate Policy XX – Planning for Localities along the Swan Canning Development Control Area*, which establishes key development principles to direct and inform development (including use of the land and water). These principles are supported by the below series of intended locality-specific development outcomes. The development principles and outcomes are to be demonstrated as part of any proposal.

The Locality Plan is adopted as policy to support the implementation of the *Swan and Canning Rivers Management Act 2006* and is to be given due regard in relation to strategic and statutory planning that may affect the river.

The Locality Plan is supported by an Action Plan that aims to direct strategic planning and works in the locality. The actions, while not adopted as policy, should be delivered when opportunity presents. The Action Plan will be updated as needed. Delivery of the actions is subject to funding and resources.

The extent of the Upper Canning *Dyarlgarro* locality is identified in Figure 1. The development outcomes apply to land within and affecting (including visually) the Swan Canning development control area and includes public and private land.

POLICY AREA

The Upper Canning locality extends from Nicholson Road Bridge to the Stinton Creek confluence on the Canning River.

Figure 1: Upper Canning Dyarlgarro *Locality*

Much of the upper Canning River foreshore is either in private ownership or public reserves with limited public access. Mature *Eucalyptus rudis* form a linear overstorey with a mixture of native and introduced understorey flora. Parts of the uppermost reaches are in a relatively natural state. The river has declining water flows due to reduced rainfall, dams (e.g. Canning Dam) and private irrigation systems that pump directly from the river. River flow is heavily supplemented through summer with scheme water releases from six locations between Araluen Botanical Park and Gosnells.

Between Nicholson Road and Tonkin Highway, the Canning River is a narrow and shallow channel that becomes seasonally waterlogged. The immediate banks of the river comprise a mix of introduced and native riparian vegetation that provides a natural landscape character along this reach of the Canning River, which transitions to open parkland character in the floodplain due to historical clearing for agricultural land uses. There were significant areas of rural landscape character in this area until recently. However, development of the Roe Highway, subdivision and redevelopment for medium density housing and the associated light industrial and commercial areas have changed the rural landscape character to a built suburban landscape character. The riparian vegetation is an important feature of the landscape, providing both a natural element and attractive backdrop to the urban landscape character in this locality, and is progressively being enhanced through rehabilitation works.

A rural landscape character was dominant through Kelmscott and Roleystone until recently, however only small pockets of rural landscape elements remain. Rural-residential and suburban development are now the dominant landscape character. Remnant orchards are mixed with tourist accommodation, hobby farms and horse agistments. The Canning River irregularly meanders in the upper reaches. Due to the narrowness of the river channel and embankment, tree canopies often join over the water form, creating an enclosed river section. The landscape provides attractive views of undulating hills as the river flows through the valley. Araluen Botanic Park and Roley Pool are notable landmarks.

Continuous access along the Canning River foreshore is limited in this locality due to residential developments or rural properties backing onto the foreshore. There are several nodes of parkland landscapes along the upper Canning River, including Hester Park, Homestead Park, John Okey Davis Park, Centenary Pioneer Park, Fancote Park and Rushton Park. These range from kickabout areas, playgrounds and bushland areas. The parklands play an important part in linking the river and its fringing riparian vegetation to the surrounding urban areas. These open park landscape elements act as a visual transition between the built landscape and the Canning River.

DEVELOPMENT OUTCOMES

SOCIAL BENEFITS

Maintaining the River System and its Setting as a Community Resource

9.1 Provide a road or dual use path interface between new urban lots and the foreshore reserve. In some cases, such an interface will also be required for survey strata subdivisions. Encourage the alignment of public open space abutting the foreshore reserve.

Securing Public Access to the River System

9.2 Provide a safe and accessible public open space network. Particular attention should be given to the following:

i. incorporating pathways under bridges or via pedestrian crossings at the roadway, which are set back on the landward edge of the foreshore reserve;

ii. incorporating pathways at subdivision stage that are to be located within public open space that abuts the foreshore reserve, or the river-side of the road reserve that abuts the foreshore reserve; and

iii. providing at-grade pathways within the floodplain, acknowledging that the pathways may be periodically inundated, or constructed as boardwalk structures.

9.3 Account for the terrain, environmental values and landscape amenity of the foreshore reserve when providing public access.

i. The design is to respond to the site and local context. In some areas an informal path is preferred due to environmental sensitivities, such as in Roley Pools Reserve and Thompsons/Araluen Walk Trail Reserve, as well as other areas where the foreshore is heavily vegetated or steep and would require level modifications to provide formal access; and

ii. Access to the water may not always be practical or ecologically appropriate.

9.4 Encourage the incorporation of a bicycle path or lane in urban areas within road reserves adjacent to the foreshore, including as part of road pavement rehabilitation and resurfacing projects.

Maintaining a Sense of Place

9.5 Enhance connections to the river foreshore, such as through wayfinding, from nearby community or activity centres. Particular attention should be given to Maddington, Gosnells and Kelmscott urban centres.

9.6 Use local native vegetation species within the foreshore and within public open space and road reserves that abut the foreshore to connect and contribute to the river landscape's sense of place.

9.7 With permission, use Whadjuk Noongar place names across the locality, such as Dyarlgarro Beelier (Canning River).

ENVIRONMENTAL VALUES

Increasing Climate Resilience

9.8 Where water quality is addressed and flood capacity is sufficient, direct clean stormwater runoff from the urban zone to the Upper Canning River, Ellis Brook and Bickley Brook through water sensitive infrastructure to address reduced flows due to climate change.

9.9 Retain and enhance existing vegetation, particularly large trees, and increase canopy coverage to combat the urban heat island effect. Encourage the planting of local native trees within urban areas.

9.10 Maintain and enhance river pools that are an ecological refuge, including by addressing sedimentation.

9.11 Maximise shading of the waterway to maintain low water temperatures and reduce algal growth.

Protecting the Natural Environment

9.12 Protect the natural landform surrounding the river from earthworks (including filling of the floodplain), clearing and other intrusions that may impact on the function and character of the river.

9.13 Maintain and restore the foreshore to conserve its ecological values and protect riverbanks in their natural state. Where riverbank stabilisation is necessary in this locality, soft foreshore stabilisation approaches should be used. Any incidental rock material used for foreshore stabilisation is to be laterite.

9.14 Protect riverine biodiversity and vulnerable species, including Carter's freshwater mussels and rakali. Protect in-water habitat, including large woody debris, and maintain connectivity between aquatic habitats and the riparian zone and floodway.

9.15 Encourage protection of foraging and roost sites for Black Cockatoos, including within the Araluen-Wungong Important Bird Area.

Protecting Fringing Vegetation

9.16 Retain and restore foreshore vegetation, particularly where suburban land uses are adjacent to the river foreshore and where weedy species have degraded the native vegetation. Prioritise weed removal and replace with local native species.

9.17 Retain and enhance the natural river experience along the dual use paths by retaining and widening local native riparian vegetation, particularly the trees that provide canopy over the dual use pathways and provide a more enclosed natural landscape character experience, especially on the southern side of the upper Canning River.

9.18 Encourage a minimum 30-metre-wide vegetated corridor of local native species from the high-water mark on each side of the Canning River.

Creating and Maintaining Foreshore Reserves

9.19 Maintain and increase the total area, and improve the environmental quality, of foreshore reserves in this locality.

Minimising Dredging and Channel Disturbance

9.20 Filling within the floodway or redirection of waterways, including for channel crossings, is not permitted. The use of culverts for channel crossings is not permitted as they act as barriers to aquatic biota and should be replaced to restore connectivity when possible.

9.21 Minimise riverbank disturbance and retain riverbank undercuts, which form a valuable habitat in and under the eroded edge.

Implementing Responsible Drainage Management Practices

9.22 Encourage conversion of stormwater drains to living streams and extend the natural landscape character across the floodplain and areas of seasonal inundation.

9.23 Increase surface and sub-surface water flows to the river that mimic natural regimes and ensure development meets ecological water requirements, where they have been determined. Return water flows to the river through the removal of abstraction licences from the Canning River.

9.24 Implement improvements to the quality of stormwater entering the foreshore, including by managing and controlling stormwater runoff to prevent sediment loads from entering the river. Stormwater systems are to be designed to slow the flow of water through the landscape. Consider the inclusion of sedimentation pools and vegetated swales to drop out sediment loads as much as possible, and alternatives to roadside spoon drains that also collect sediment. Consider the need to retrofit drainage inlets.

9.25 There is a presumption against the planting of deciduous trees within catchment areas that connect to the river, except when being used for passive-solar purposes.

Applying Appropriate Water Management Practices

9.26 Development and land use intensification in unsewered areas is to be supported by a wastewater management plan that demonstrates no new sources of nutrients to the river.

9.27 Ensure development and land uses adjacent to tributaries that connect to the Canning River do not result in new sources of nutrient or non-nutrient contaminants to the river.

9.28 Provide a suitable environmental buffer between the Canning River and adjacent rural land uses, based on the type of activity.

9.29 Implement nutrient and irrigation industry best practice for active playing surfaces in proximity to the river. Establish buffers of native vegetation between the waterway and active recreation areas, including Rushton Park. New active recreation areas are to be located outside of the foreshore reserve.

Rehabilitating the River System

9.30 Restore tributaries that connect to the Canning River including by creating buffers of native vegetation along the waterway edge. Named tributaries include Ellis Brook, Bickley Brook, Yule Brook, Stoney Brook, Churchman Brook and Stinton Creek.

9.31 Ensure that connectivity within tributaries is maintained such that riverine biota can move through the river and creek systems. Installation of barriers that alter or impeded river flow are not permitted. Remove or modify, where appropriate, existing manmade barriers within the river.

9.32 Promote biodiversity and habitat creation. Restore structural complexity in the vegetation by establishing an over, middle and understorey (including wetland plantings). For rehabilitation projects, use local provenance plants, where possible.

CULTURAL AND NATURAL HERITAGE

Conserving the Cultural and Natural Heritage of the River System and its Setting

9.33 Protect and maintain the heritage buildings and infrastructure that are important landscape elements of the Canning River, particularly the Riverview, Yule Brook and Maddington Park historic buildings, Wilkinson Homestead and Gosnells Hotel and in Kelmscott and Roleystone.

9.34 Protect places of Aboriginal cultural significance, including sites that may not be listed on the Aboriginal Heritage Places register.

DESIGN AND DEVELOPMENT

Promoting Sensitive Design and Built Form to Complement the River Landscape

9.35 Ensure that development complements the landscape values and has minimal impacts on the landforms of the area and the Darling Scarp, particularly new developments built on steep slopes.

9.36 Subdivisions and development should not result in abrupt topographical changes. Additional setbacks within the development area may be required to provide for a gradual transition.

9.37 There is a general presumption against retaining walls along the foreshore reserve interface. On constrained sites, retaining up to 900mm high may be accepted.

9.38 Sympathetically integrate with the river surrounds adjoining subdivisions and development. Ensure that the private-public interface, including for commercial land uses, has high amenity when viewed from the foreshore reserve.

9.39 Vital infrastructure, such as sewer or water main pipelines, that is required to cross the river should be tunnelled or incorporated into existing crossing structures, such as bridges or pedestrian walkways. If appropriate, the infrastructure may be incorporated into a new low-impact pedestrian crossing.

Creating Linkages and Greenways

9.40 Create ecological linkages along the tributaries of the Canning River and connect areas of remnant bushland to the foreshore reserves to enable functional corridors, including Banyowla Regional Park.

Activating the Foreshores

9.41 Activation should be confined to Hester Park, Homestead Park, John Okey Davis Park, Centennial Pioneer Park, Fancote Park, Rushton Park and Roley Pools, and should be temporary, such as pop-up facilities and events with self-contained servicing. Encourage enhancement of low-impact community amenities, such as nature-play and picnic facilities, also within these established parks. In other areas, use should be passive, such as at-grade pathways, trails and interpretation.

9.42 Minor community amenities that can be inundated may be accepted within the floodway.

9.43 May consider small scale community and food and beverage development within Hester Park and Fancote Park outside of the floodway and collocated at the Thornlie Community Centre in Homestead Park where it can be demonstrated to have a community focus, enhances the natural character of the foreshore, and ideally delivers multiple benefits or services.

9.44 Encourage opportunities to learn about river ecology, conservation, history and heritage, including through art, interpretation, signage and nature-based play.

9.45 Provide a formal river access point for kayaks and canoes at Hester Park.

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ACTION PLAN

Action		Timing (years) 0-2, 2-5, 5+	Key agencies (in addition to DBCA)	Notes
9.46	Undertake long-term planning to increase the provision and width of the foreshore Parks and Recreation reserve in this locality, particularly where the reserve is narrow or non-existent, such as land in the vicinity of Highbury Crescent and Hersey Place, Lockhart Place and Manning Avenue, flood fringe near Pinot Street, northern end of Lissiman Street, flood fringe along Mills Road West and upstream of Ferres Drive bridge.	5+	LGAs, DPLH	Consider as part of strategic planning
9.47	Undertake long-term planning to create ecological linkages between the Canning River foreshore reserve and Banyowla Regional Park (including Lloyd Hughes Park), Wungong Regional Park and Midgegooroo National Park.	5+	CoA	Consider as part of strategic planning
9.48	Undertake infill sewer connection in Kelmscott, preferencing lots within 100 metres of a waterway, including along Page Road, Gilwell Avenue, Clifton Street, Cockram Road, Albany Highway, Marmion Street and Roberts Road.	5+	WC, LGAs	
9.49	Undertake a Metropolitan Region Scheme amendment upstream of Turner Place-Brookside Avenue, Kelmscott to River Road-Martin Street, Kelmscott to transfer the foreshore areas currently zoned Rural to the Parks and Recreation reserve.	2-5	DPLH, LGAs	
9.50	Investigate flood mapping upstream of the Brookton Highway bridge.	2-5	DWER	

9.51	Undertake broad strategic recreation (passive and active) and public open space planning for areas proposed for increased density to ensure that the foreshore reserve remains a place for passive activities and enjoyment of nature.	2-5	LGAs	To inform foreshore improvement works in these locations
9.52	Master plan the Hester Park-Beckenham Regional Area that runs along the Canning River between Nicholson Road, Spencer Road, Roe Highway and Kenwick Link and investigate its potential inclusion in the Canning River Regional Park. The park should cater for community uses that are appropriate to the floodplain nature of the site and enhance its environmental values. Structures and uses that can be periodically inundated may be accepted within the floodway, such as kickabout areas and nature-play. A formal river access points for kayaks and canoes should be provided, which may be incorporated into a fixed community jetty structure. Investigate options for a shared facility incorporating new community uses, café and public toilets within the flood fringe. The consolidation of Parks and Recreation reserve may be considered where acquisition occurs in identified constrained locations adjoining the park.	0-2	CoG, DPLH	To form part of strategic planning or foreshore works in this location
9.53	Develop a foreshore walk trail for this locality that incorporates opportunities to recognise cultural heritage values and learn about river ecology, conservation, history and heritage, including through art, interpretation and signage.	2-5	LGAs, DPLH	Consider as part of strategic planning
9.54	Develop a restoration and protection plan for the Canning River foreshore to share resourcing and coordinate management activities across mixed land tenure. Encourage the implementation of Local Biodiversity Strategies.	5+	LGAs, DPLH, DWER	
9.55	Investigate options for the incorporation of new river-related community uses, a café and public toilets at the Thornlie Community Centre in Homestead Park.	2-5	CoG	

9.56	Master plan the sections of the Canning River foreshore that are part of the Kelmscott District Centre Precinct Structure Plan area as part of the strategic planning project.	0-2	CoA	To inform foreshore works in this location

CoA City of Armadale
CoG City of Gosnells
DBCA Department of Biodiversity, Conservation and Attractions
DPLH Department of Planning, Lands and Heritage
DWER Department of Water and Environmental Regulation
LGA Local Government Authority
WC Water Corporation