



Department of Biodiversity,
Conservation and Attractions



DRAFT

HELENA RIVER

MANDOON

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.

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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 Helena River *Mandoon* 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 Helena River *Mandoon* 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 Helena River locality extends from the confluence with the Swan River in Guildford to the Lower Helena Diversion Dam (also known as Pumpback Dam or Pipehead Dam).



Figure 1: Helena River Mandoon Locality

The Helena River passes through a range of landforms, from the flat alluvial plain at its confluence with the Swan River at Guildford, to the steeper ridges of the Darling Scarp and the undulating hills of the Darling Range. The valley has elevated views to the west across the coastal plain.

The downstream section of the Helena River has a dominant built suburban landscape character, particularly at Guildford, Helena Valley, South Guildford, Woodbridge and Koongamia. The suburban area consists of a mixture of housing styles and ages, with Guildford and sections of Midland having nodes of older and heritage residences.

The Midland Railway Workshops are a cluster of late 19th century industrial red brick buildings that have been restored and repurposed. They are currently being transitioned to commercial, residential, educational, health and public open space land uses. The large warehouses dominate the flat landscape and there is no visual or public access connection from the Midland Workshops redevelopment area to the Helena River.

Further upstream, the Helena River has small reaches of rural landscape character at Helena Valley. The rural elements are typically rural living blocks with old orchards and horse agistments, rather than agricultural properties. Many properties extend to the river, which restrict public access. The river is lined in some places by mature riparian vegetation that form a vegetated corridor and is an important feature of the landscape, providing both a natural element and an attractive backdrop to the suburban and rural landscape characters in this locality. Close to the Diversion Dam, the Helena River is bordered by the Beelu National Park and Nyaania Creek Reserve.

The river has declining water flows in its upper reaches due to reduced rainfall and dams, including Mundaring Weir. The braided river channel is not navigable and recedes to a series of pools and exposed dry riverbed in summer. The waters rise to fill the channel during winter. Much of the native riparian vegetation in the lower reaches of this locality has been cleared for grazing or urban land uses. More native vegetation remains further upstream.

DEVELOPMENT OUTCOMES

SOCIAL BENEFITS

Maintaining the River System and its Setting as a Community Resource

7.1 Planning and decision making is to contribute to securing a continuous public foreshore reserve throughout this locality.

Securing Public Access to the River System

7.2 Provide a safe and accessible public open space network. Particular attention should be given to planning for and incorporating public access connections to residential streets that abut the foreshore and as part of river crossings such as the Lloyd Street bridge.

7.3 Provide at-grade pathways within the floodplain, acknowledging that the pathways may be periodically inundated, or constructed as boardwalk structures. The design is to respond to the site and local context. In some areas an informal path, such as a trail, is preferred due to environmental sensitivities.

Maintaining a Sense of Place

7.4 Recognise the importance of the river foreshore as a space for future residents to access nature in the locality, as well as for its conservation values.

7.5 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.

7.6 With permission, use Whadjuk Noongar place names across the locality, such as Mandoon (Helena River).

ENVIRONMENTAL VALUES

Increasing Climate Resilience

7.7 Where water quality is addressed and flood capacity is sufficient, direct clean stormwater runoff from the urban zone to the river through water sensitive infrastructure to address reduced flows due to climate change.

7.8 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.

7.9 Foreshore revegetation projects should consider the predicted changes in salinity of the river and select local native species accordingly, particularly near the confluence with the Swan River.

Protecting the Natural Environment

- 7.10 Protect riverine biodiversity and vulnerable species, including Carter's freshwater mussels, quenda and declared rare flora.
- 7.11 Encourage protection of foraging and roost sites for Black Cockatoos, including within the Mundaring-Kalamunda Important Bird Area.
- 7.12 Protect areas of remnant Forrestfield, Guildford, Southern River and Swan vegetation complexes associated with waterways.

Protecting Fringing Vegetation

- 7.13 Protect existing fringing vegetation, including trees on the riverside of development.
- 7.14 Restore native fringing vegetation, particularly where weeds and extensive historical understorey clearing have degraded the riparian floodplain vegetation. Rehabilitate areas of degraded vegetation condition, reinstate mid and understorey vegetation and remove significant weeds. Undertake succession planting.

Creating and Maintaining Foreshore Reserves

- 7.15 Ensure that increases in density and subdivisions incorporate adequate foreshore and public open space reserves, including on tributaries of the Helena River such as Kadina Brook, Wangalla Brook and Nyaania Creek. Encourage the alignment of public open space abutting the foreshore reserve. Incorporate a road interface between the private and public realm.
- 7.16 New active public open spaces, such as formal playing fields and courts, are to be located outside of the FPM 1 in 100 (1%) annual exceedance probability floodway.

Minimising Dredging and Channel Disturbance

- 7.17 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.

Implementing Responsible Drainage Management Practices

- 7.18 Implement improvements to the quality of stormwater entering the foreshore. Implement water sensitive urban design, with the aim of incorporating at-source stormwater systems and overland flow through vegetated systems within the catchment.
- 7.19 Restrict construction of on-stream dams and other barriers, and prominent earthworks (including filling of the floodplain).

Applying Appropriate Water Management Practices

- 7.20 Subdivisions of lots within 100 metres of the Helena River are to be connected to the reticulated sewerage system.
- 7.21 Development or land use changes on a lot that will increase wastewater loads are to connect to the reticulated sewerage network, where possible, or the onsite system is to be upgraded to manage nutrient outputs.

- 7.22 Implement nutrient and irrigation industry best practice for turf in proximity to the river, particularly in shallow groundwater areas, including the Kings Meadow Polo Ground. Establish buffers of native vegetation along the river's edge.

Rehabilitating the River System

- 7.23 Protect and maintain the natural function and form of the riparian landform elements, such as the alluvial terraces, floodway, embankments, riverbanks and channel.
- 7.24 Improve the quality of waterways and drainage lines, including for the purpose of ecological linkages. Increase the width of the riparian vegetation with local native species, especially between the Swan River confluence and Samson Street.
- 7.25 Protect riverbanks in their natural state. Revegetation with native species is the most suitable riverbank stabilisation method in this locality. Undertake succession planting. Encourage the establishment of a minimum 30-metre-wide vegetated riverbank corridor on each side of the channel.

CULTURAL AND NATURAL HERITAGE

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

- 7.26 Protect and maintain the heritage buildings and infrastructure that are important landscape elements of the Helena River, particularly at Guildford and Midland.
- 7.27 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

- 7.28 Ensure that development complements landscape values, particularly at the confluence with the Swan River and in the upper reaches of the valley. Ensure the river slopes and floodway are not degraded either visually or physically.
- 7.29 Ensure that the private-public interface has high amenity when viewed from the foreshore reserve. Development should maintain and enhance the quality and setting of the foreshore, particularly where there is no road interface with the foreshore reserve.
- 7.30 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.
- 7.31 There is a general presumption against retaining walls along the foreshore reserve interface. On constrained sites, retaining up to 900mm high may be accepted.

- 7.32 Vehicle accessways or car parking within the foreshore reserve are to be at-grade, permeable and set back as much as possible from the river's edge or located outside of the FPM 1 in 100 (1%) annual exceedance probability floodway.

Creating Linkages and Greenways

- 7.33 Enhance connections to the river foreshore, such as through wayfinding, from nearby community or activity centres nodes. Particular attention should be given to Hill Street and/or Meadow Street (Guildford).
- 7.34 Connect foreshore reserves associated with tributaries, such as Kadina Brook and Wangalla Brook, and wetlands, such as Broz Park, with the Helena River floodplain.
- 7.35 Create ecological linkages along the Helena River and between Bush Forever areas and Threatened and Priority Ecological Communities and promote biodiversity and habitat complexity through planting local native over, middle and understorey species.

Activating the Foreshores

- 7.36 Improve public access to and within the foreshore reserve with activation to be focused on passive or nature-based activities and temporary facilities or events with self-contained servicing. May consider temporary food trucks/café vans at Kings Meadow Polo Ground.
- 7.37 Minor community amenities that can be inundated may be accepted within the floodway.
- 7.38 May consider small scale community and food and beverage development outside of the floodway where it can be demonstrated to have a community focus, enhances the natural character of the foreshore, and ideally delivers multiple benefits or services.
- 7.39 Development in the foreshore may be required to be supported by an overarching strategic master plan (or similar) for the area. Encourage the establishment of park nodes with low-impact community amenities, such as nature-play and picnic facilities. In other areas, use should be passive, such as pathways, trails and interpretation.
- 7.40 Encourage opportunities to learn about river ecology, conservation, history and heritage, including through art, interpretation, signage and nature-based play.

ACTION PLAN

Action	Timing (years) 0-2, 2-5, 5+	Key agencies (in addition to DBCA)	Notes
7.41 Increase the foreshore Parks and Recreation reserve width and extent along the Helena River, particularly where there is no reserve, it does not include the extent of the FPM 1 in 100 (1%) annual exceedance probability floodway, areas of natural landscape value should be protected, or where there is an opportunity to create a buffer between the increasingly urban built landscape and riverine environment.	5+	LGAs, DPLH	Consider as part of strategic planning
7.42 Undertake long-term planning to create ecological linkages between the Helena River foreshore reserve and Beelu National Park.	5+	CoK, SoM	Consider as part of strategic planning
7.43 Add to the River reserve those sections of the Helena River that are not currently included and undertake a Metropolitan Region Scheme amendment to transfer the River reserve to Waterway.	2-5	DPLH	
7.44 Actively manage the reserved foreshore to encourage regeneration of native species. Engage with the active community groups within this locality.	0-2	LGAs, DPLH	
7.45 Undertake infill sewer connection for the Midland and Hazelmere industrial areas, Stirling Crescent (Hazelmere), and Helena Valley along Katharine Street, Clayton Street and Helena Valley Road.	5+	WC	Undertake strategically and as part of related proposals
7.46 Improve the environmental management of the Kings Meadow Polo Ground and community access to the site, including considering building a new shared facility that is connected to the reticulated sewerage system and activating the polo ground for broader community events.	0-2	CoS	To inform proposals for this location

7.47	Undertake flood modelling upstream of Fyfe Street, Helena Valley to establish an FPM 1 in 100 (1%) annual exceedance probability floodway and flood fringe boundary.	5+	DWER	
7.48	Undertake broad strategic recreation (passive and active) and public open space planning for Helena Valley, Bellevue, Hazelmere, Midland and South Guildford. Consideration should be given to identifying park nodes that are adjacent to the foreshore reserve and outside of the floodway for possible future small-scale community and food and beverage development.	2-5	LGAs	To form part of foreshore improvement works in these locations
7.49	Continue to actively pursue land to add to the foreshore corridor, including by acquiring Parks and Recreation reserve that is currently in private ownership.	5+	DPLH	Acquire consistent with State policy and proactively when opportunity presents
7.50	Develop a strategy for private lots that do not have a building envelope outside of the FPM 1 in 100 (1%) annual exceedance probability floodway.	0-2	CoS, DPLH, DWER	
7.51	Develop a foreshore walk trail for this locality that incorporates opportunities to learn about river ecology, conservation, history and heritage, including through art, interpretation and signage.	2-5	LGAs, DPLH	Consider as part of strategic planning
7.52	Implement the recommendations of the <i>Tributary Foreshore Assessment: Helena River (Mandoon)</i> (DBCA, 2018), including the suggested revegetation species list, which contains more detailed restoration recommendations at a local scale.	5+	LGAs, DPLH, DWER	
7.53	Develop a restoration and protection plan for the Helena River foreshore to share resourcing and coordinate management activities across mixed land tenure.	5+	LGAs, DPLH, DWER	
7.54	Actively manage unauthorised 4WD access to the foreshore, particularly near the Craignish gauging station in Helena Valley and in areas of Kalamunda and Gooseberry Hill.	0-2	LGAs	

7.55	Work with the local community to improve knowledge of the local foreshore environment, including the impacts of unauthorised vehicle access, weed encroachment from gardens, and illegal rubbish dumping.	0-2	LGAs	
7.56	Develop a Helena River foreshore master plan to guide progressive improvement works.	5+	LGAs, DPLH	Consider as part of strategic planning or relevant proposals

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CoK City of Kalamunda

CoS City of Swan

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

SoM Shire of Mundaring

WC Water Corporation