Government of Western Australia
Department of Water
Australian Government

Water notes

WN37 January 2009

Water notes for river management

Advisory notes for land managers on river and wetland restoration

Wild rivers in Western Australia

About wild rivers

Berkeley – Wild River

The Department of Water is responsible for managing the state's water resources. These include wild rivers, which are representative of largely unchanged natural systems.

Wild rivers are defined as:

> …those rivers which are undisturbed by the impacts of modern technological society. They remain undammed, and exist in catchments where biological and hydrological processes continue without significant disturbance. They occur in a variety of landscapes, and may be permanent, seasonal or dry watercourses that flow or only flow occasionally, (Water and Rivers Commission, 1999).

Through a project with the Australian Heritage Commission, the Department of Water originally recognised 49 wild rivers in Western Australia (Water and Rivers Commission, 1999). The Upper Yule River has since been downgraded due to development in the catchment, bringing the state's total to 48. Thirty-seven of these wild rivers are located in the Kimberley and Pilbara regions. These waterways and their catchments remain generally undisturbed due to their isolation, rugged topography or land tenure. Background information relating to the identification of wild rivers is provided in Appendix 1.

Figure 1 is a broad-scale map showing the distribution of wild rivers in Western Australia.

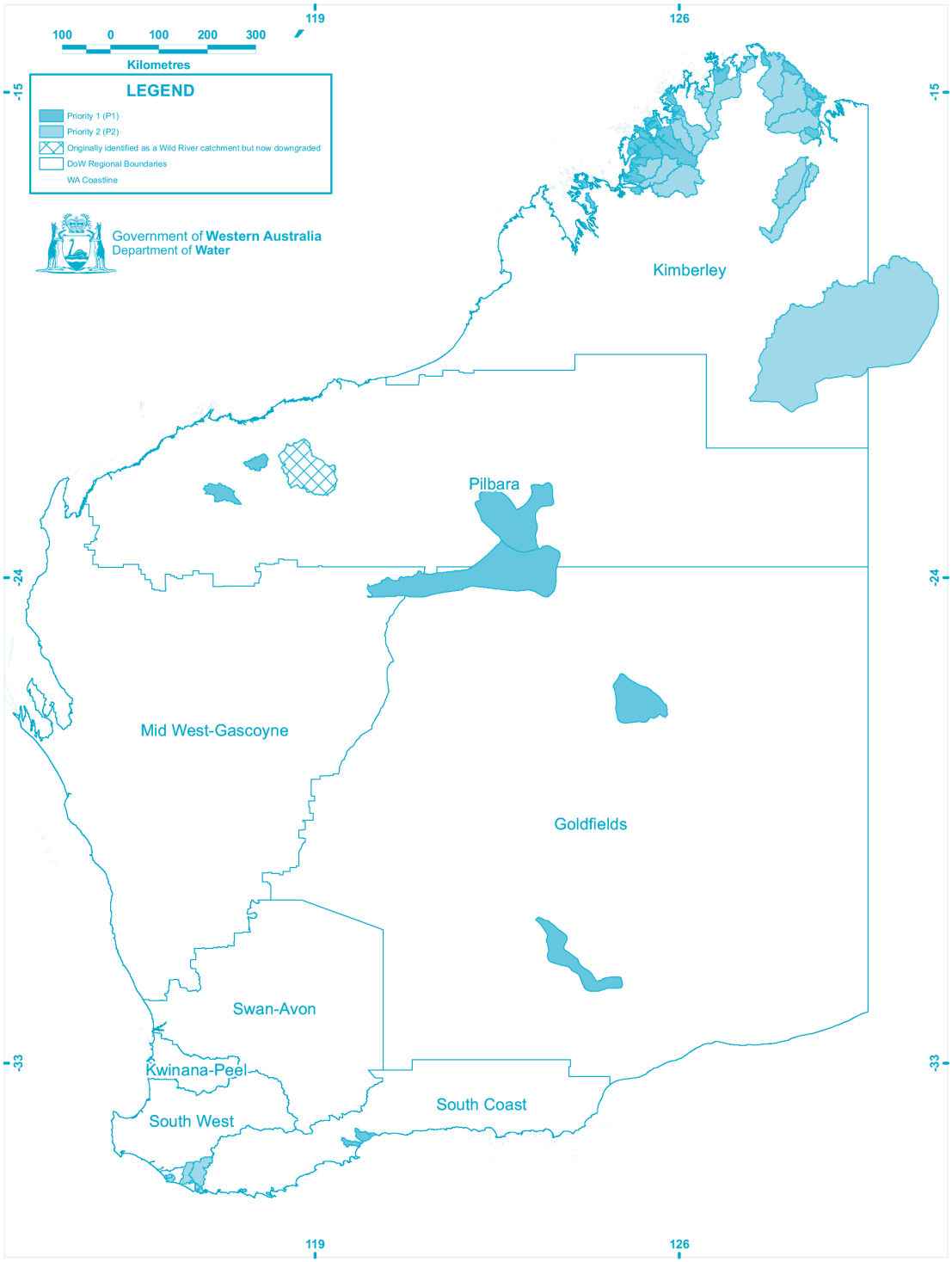


Figure 1 Wild river catchments in Western Australia

Appendix 2 provides a list of wild rivers. Appendix 3 provides inset maps of wild river catchments.

The values of wild rivers

Doggerup Creek – South Coast Wild River

Some of the most important values of wild rivers include:

Rarity	Wild river catchments are becoming increasingly scarce on a global scale. As their scarcity increases, their environmental value also increases.
Habitat	Wild rivers are often biologically diverse and productive habitats. They provide habitat for some threatened species of flora and fauna, corridors for wildlife, and refuge habitat for many species in times of drought.
Water quality	Many wild rivers supply high quality water for downstream use, including potable water supply, irrigation, waste disposal, fisheries, aquaculture, and navigation.
Scentific	Wild river catchments can provide baseline data for environmental monitoring and information on the functioning of natural systems. They contain sites of significance for geology, geomorphology, botany, zoology, archaeology, and other sciences.

Classifying wild rivers

A classification system was based on a catchment-scale condition assessment. The classification system identifies priority 1 (P1) and priority 2 (P2) wild rivers. P1 wild rivers are those with no or minor impact from clearing, altering the landscape, loss of vegetation due to grazing, road or track construction, introduced exotic animals, plants or plant diseases, increased fire frequency, unnatural erosion and sedimentation or alterations to waterway and riparian ecosystem. P2 wild rivers are those with some but not extensive impact from clearing, altering the landscape, loss of vegetation due to grazing, road or track construction, introduced exotic animals, plants or plant diseases, increased fire frequency, unnatural erosion and sedimentation or alterations to waterway ecosystems.

Wild rivers with either P1 or P2 classifications are managed in the same way[1] . This is because there are only nominal differences between these classifications.

Managing wild rivers

Lower Thompson estuary flats – Wild River

The State Waterways Initiative identifies the following two priority actions for managing wild rivers:

- Scope the requirements for developing and implementing a cooperative model for managing wild river catchments and other high environmental value waterways that are outside the conservation estate.

[1] There is one exception described in Section 4.4 regarding Schedule 1, Clause 4(1)(j) of the clearing regulations administered by the Department of Environment and Conservation.

- Scope the requirements for developing a wild rivers strategy to set future directions for the management of wild rivers in Western Australia.

As most wild rivers are located outside the conservation estate, a coordinated and cooperative approach by all relevant land and water managers, both private and public, is required to protect wild rivers. Wild rivers in the conservation estate are managed by the Department of Environment and Conservation.

Current and future pressures on wild rivers include recreation and tourism (e.g. eco-tourism enterprises), stock grazing, pastoral diversification and associated land clearing, mining, recreational fishing and aquaculture projects.

The boundary of wild rivers is defined by their catchment area. The focus of the Department of Water is to manage the waterway and the foreshore area, however the department also considers activities in the catchment that may adversely impact on the ecological values of wild rivers, including water quantity and quality.

The Department of Water recommends that land uses should maintain the values of wild rivers and be compatible with their hydrologic features. The department also recognises that the natural flow regime and hydrological connection (i.e. the transport of matter, energy and organisms) between waterways and their floodplains are particularly important to the health of aquatic ecosystems.

Appendix 1 Background information on wild rivers

In 1993, the Australian Heritage Commission commenced the Wild Rivers Project. The project included three concurrent programs covering:

- systematic identification of Australia's wild rivers
- development of guidelines for the sustainable management of wild rivers, including Conservation guidelines for the management of wild rivers (Australian Heritage Commission, 1998)
- communication and consultation.

As part of the Australian Heritage Commission's Wild Rivers Project, the Water and Rivers Commission (now the Department of Water) was involved in the data verification process and identification of undisturbed or wild rivers in Western Australia. The report (Water and Rivers Commission, 1999) to the Australian Heritage Commission concluded that forty-nine possible wild rivers existed within Western Australia, nine were in pristine (A1) condition, 17 in near pristine (A2) condition and the remaining 23 waterways were in relatively natural (B1) condition. The report recommended that rivers in pristine (A1) and near pristine (A2) condition should be recognised as wild rivers.

The Wild Rivers Project stalled in 1999 due to a change in Commonwealth Government priorities and the Australian Heritage Commission being replaced by the Australian Heritage Council.

In 2002, the Australian Heritage Council and Environment Australia agreed that, in addition to rivers in pristine (A1) and near pristine (A2) condition, those rivers identified as relatively natural (B1) should also be defined as wild rivers. This increased the total number of wild rivers in Western Australia to 49. This definition of wild rivers is recognised by the Water and Rivers Commission (now the Department of Water) and is currently used in Western Australia.

The original classification system was also retired in 2002 to reduce the segregation between wild river catchments, which was considered nominal. The new classification system identifies priority 1 (P1) and priority 2 (P2) wild river catchments. P1 consists of the old A1 and A2 classification. P2 consists of the old B1 classification.

Appendix 2 Lists of wild river catchments

Table 1 Wild river catchments in the Kimberley Region

Priority 1 (P1)

Cape Whiskey Creek
Doubtful River
Gibson Creek
Glenelg River
Helby River
Hunter River
Jinunga River
Londonderry Creek
Mount Grey Creek
Mount Page Creek
Prince Regent River
Scott River
Thompson River
Thurburn Creek
Stewart River
Wade Creek
Walmar/Canal Creek

Priority 2 (P2)

Berkeley River
Bulla Nulla Creek
Calder River
Chamberlain River
Charnley River
Forrest River
King Edward River
King George River
Lyne River
Lawley River
Moran River
Pentecost River
Placid Creek
Roe River
Sale River
Salmond River
Sturt Creek (partly contained in the Kimberley Region)

Table 2 Wild river catchments in the Pilbara Region

Priority 1 (P1)

Rudall River
Savoury Creek (partly contained in the Pilbara, Mid-West and Goldfields Region)
Tanberry Creek
Upper Robe River

Priority 2 (P2)

No rivers identified[2]

[2] Note: the Upper Yule River has since been downgraded and is no longer identified as a wild river catchment.

Table 3 Wild river catchments in the South Coast Region

Priority 1 (P1)
Dempster River
Saint Mary River
Forth River

Priority 2 (P2)
Doggerup Creek
Blackwater Creek
Shannon River
Deep River
Inlet River

Table 4 Wild river catchments in the Goldfields Region

Priority 1 (P1)
Herbert Wash
Savory Creek (partly contained in the Pilbara, Mid-West and Goldfields Regions)
Ponton Creek

Priority 2 (P2)
No rivers identified

Appendix 3 Wild river catchment map inserts

Berkeley Wild River

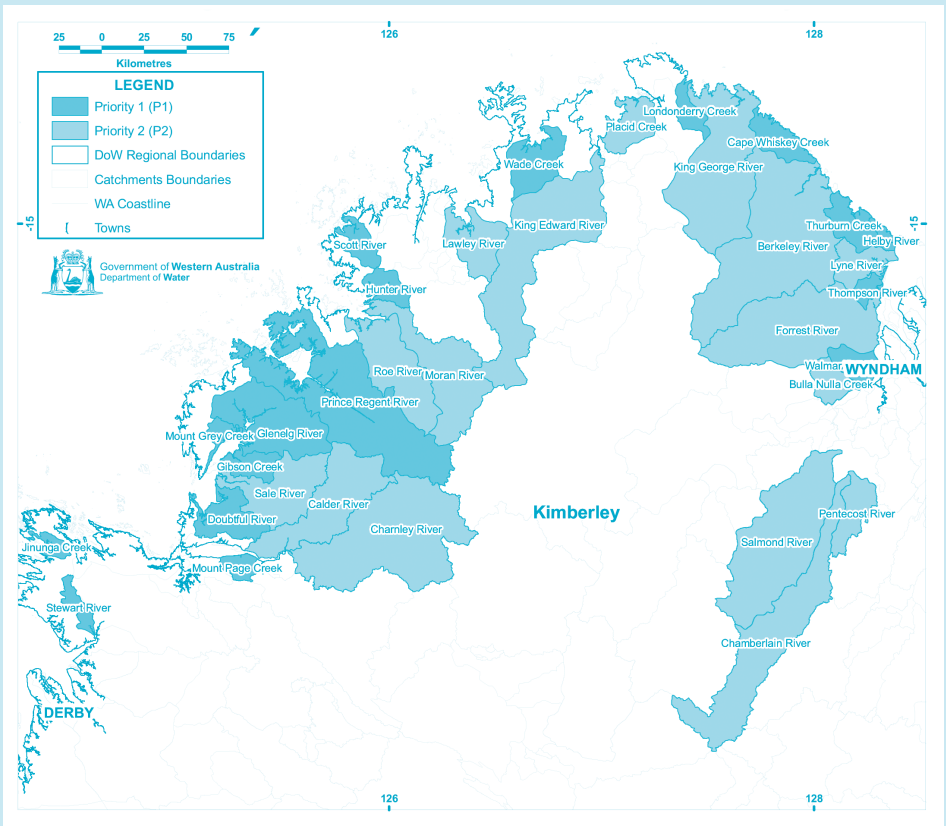
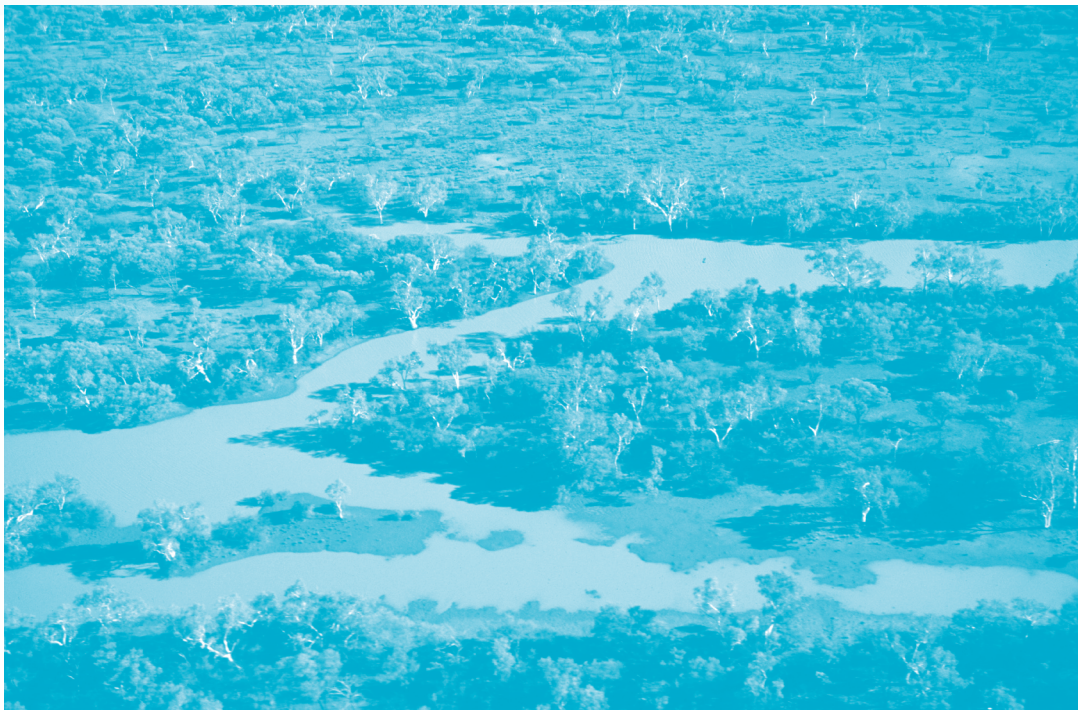


Figure A1 Wild river catchments in the North, East and West Kimberley



Savory Creek Wild River Pilbara

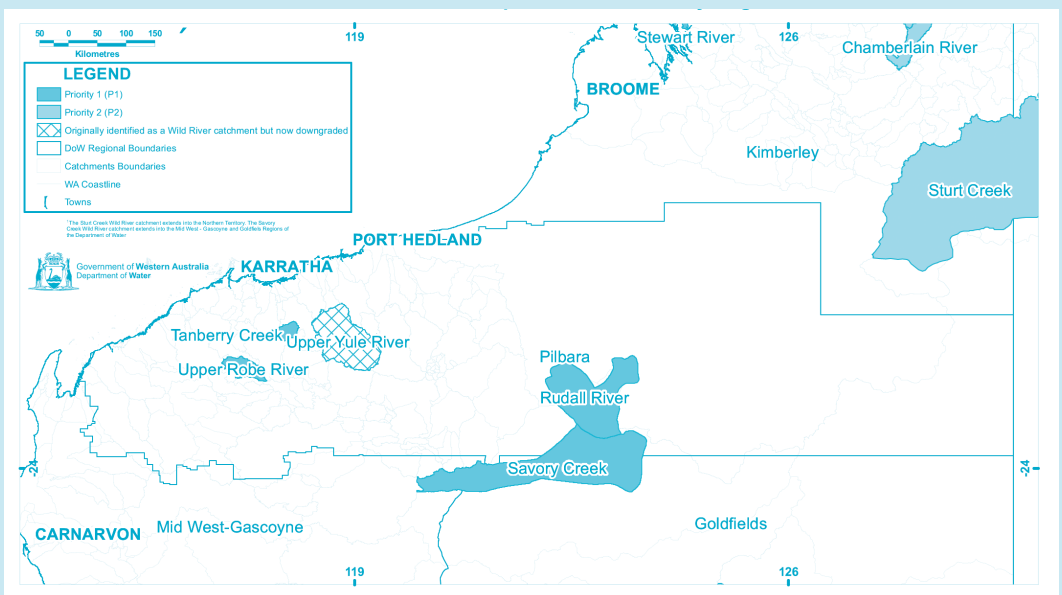
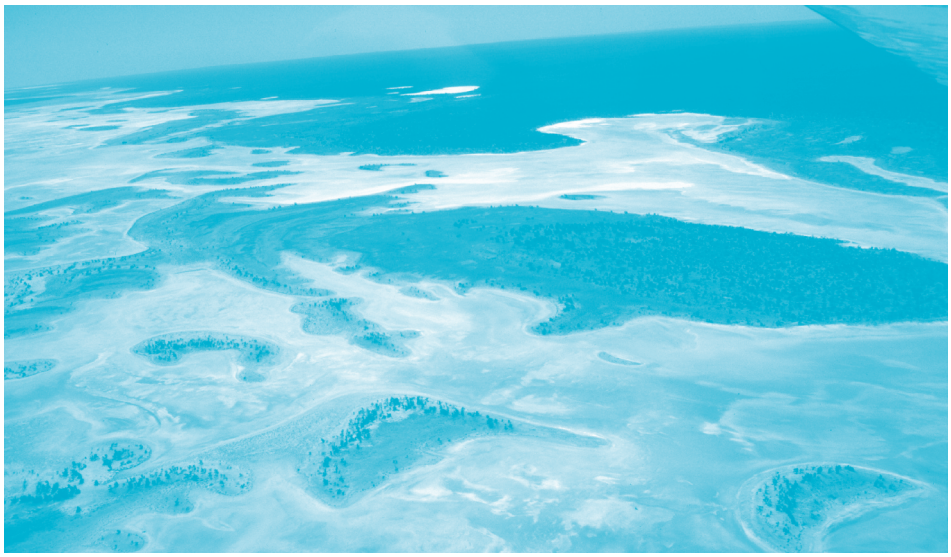


Figure A2 Wild river catchments in the Pilbara Region and Sturt Creek in the south eastern part of the Kimberley Region



Ponton Creek – Wild River

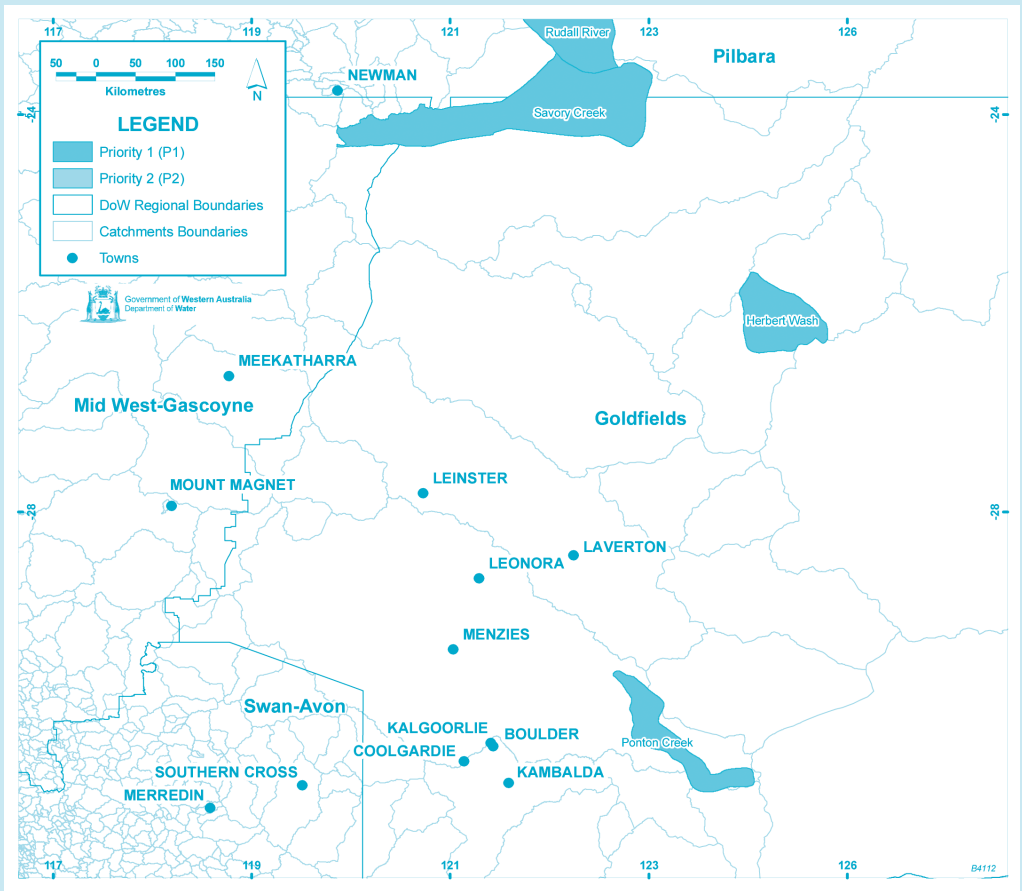


Figure A3 Wild river catchments in the Goldfields Region

Fernhook Falls Deep River – S.Neville

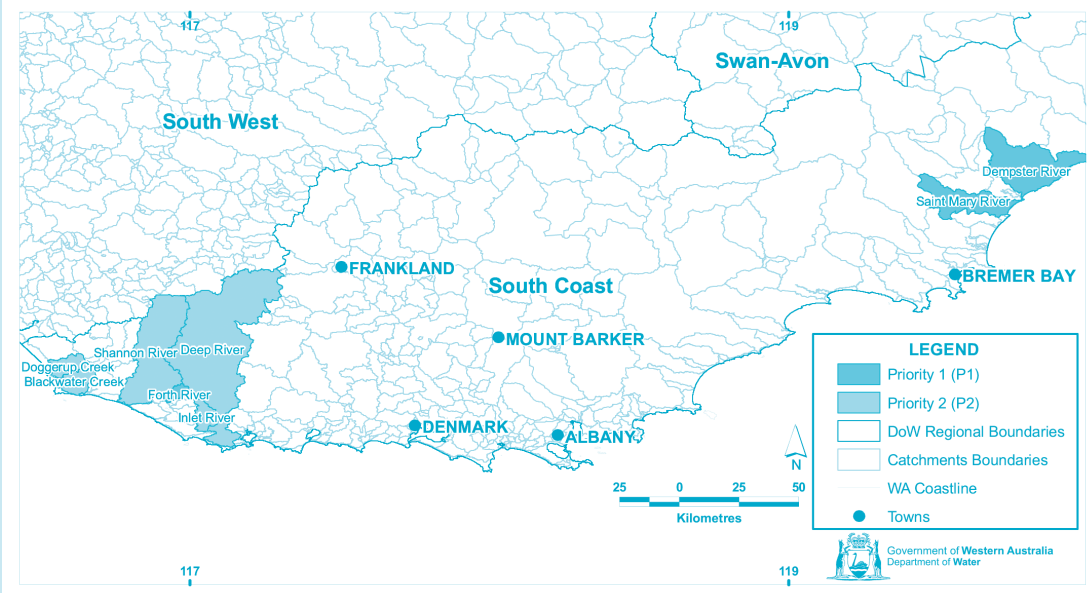


Figure A4 Wild river catchments in the South Coast Region

References and further reading

Australian Heritage Commission, 1998a, *Conservation guidelines for the management of wild river values,* Government of Australia, Canberra. Available via <www.heritage.gov.au/anlr/wild_riv/guide>.

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Notes

Notes

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The following information applies to all maps included in this document.

Sources

The Department of Water acknowledges the following datasets and their custodians in the production of the included maps:

Dataset Name	Custodian	Metadata date
Western Australian Towns	LANDGATE	Aug 2004
Lakes	AUSLIG	Dec 1998
Hydrography, linear (hierarchy)	Department of Water	Nov 2007
Road network	GA	Nov 1998
WA coastline	Department of Water	Jul 2006
Hydrographic catchments	Department of Water	Jun 2007

Datum and projection information

Vertical Datum	AHD
Horizontal Datum	GDA94
Projection	GCS GDA 94

Disclaimer

The included maps are a product of the Department of Water, Water Resource Business Operations and were produced on August 2008.

Map (Figure 1) was produced with the intent that it be used at the scale of 1:12 000 000 when printed at A4. Map (Figure A1) was produced with the intent that it be used at the scale of 1:3 000 000 when printed at A4. Map (Figure A2) was produced with the intent that it be used at the scale of 1:10 400 000 when printed at A4. Map (Figure A3) was produced with the intent that it be used at the scale of 1:7 000 000 when printed at A4. Map (Figure A4) was produced with the intent that it be used at the scale of 1:2 500 000 when printed at A4. Note; all maps not printed to scale.

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