



APPENDIX

A

LEGISLATION RELATED TO MANAGEMENT OF RIPARIAN LANDS

Riparian areas are places where land, water, vegetation and animals interact. This means that they are complex areas to manage, with this complexity reflected in the range of legislation that exists to regulate the management of different aspects of the landscape, including riparian lands. The following section covers the main pieces of legislation in Queensland that cane growers need to be aware of when managing riparian areas on their farms and highlights the implications of each one for day-to-day farm management. For cane growers in New South Wales and Western Australia, different legislation applies and the key Acts are outlined in Table 5 (page 105). Some Commonwealth legislation, for example, the *Environmental Protection, Conservation and Biodiversity Act 1999*, also applies to the management of riparian areas.

QUEENSLAND LEGISLATION

Water Act 2000

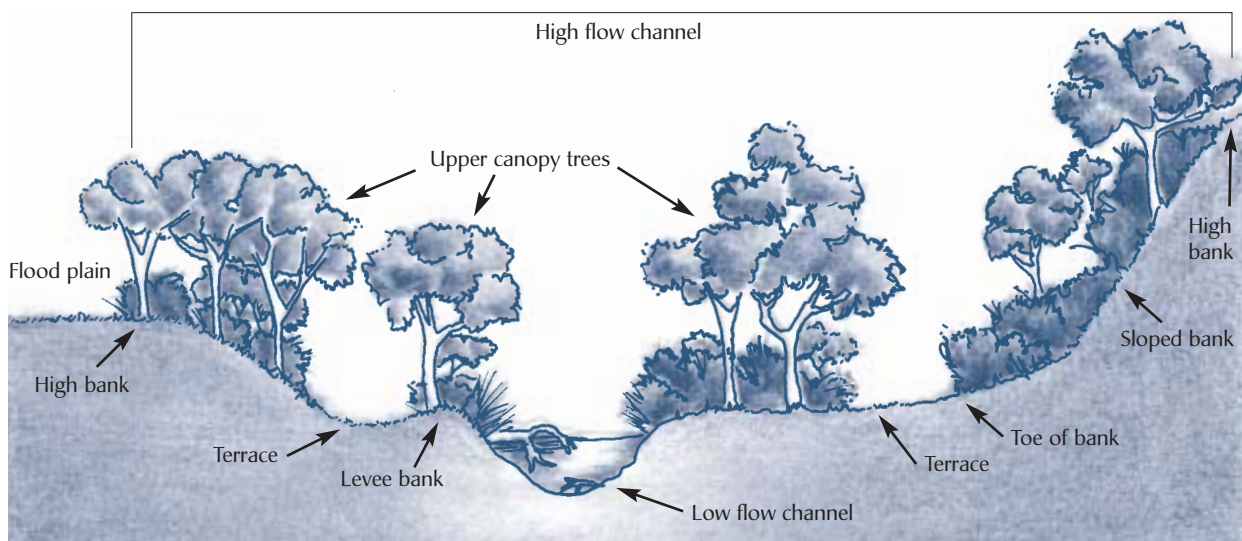
This is the principal legislation for the protection of the ‘physical integrity’ of non-tidal rivers, lakes, springs and their riparian environments. ‘Physical integrity’ relates to bed and bank stability, and associated water quality. The Act applies to all lands (Crown and private) defined as being within the high banks of a stream or lake, as well as imposing limited controls on lands outside of these features. The QDNRM administers this Act.

The Act declares the land comprising the bed and banks of a non-tidal boundary watercourse or lake to be the property of the State. A boundary watercourse (or lake) is one that forms part of the boundary of a land parcel (a parcel is a standard registered lot of land e.g. Portion XX) irrespective of the tenure or ownership of the parcels. As the terms 'bed' and 'banks' are difficult to define exactly, there is debate as to the extent of the State's ownership where the adjoining land is freehold. The State's interpretation of the Act is that it applies to all the land between the high banks of the watercourse or lake. Exactly where the high banks occur is also open to interpretation, however Figures 9 and 10 show where the 'high bank' may be located in sugar cane riparian areas.

The Act also grants to the owner or occupier of lands adjoining a non-tidal boundary watercourse or lake, certain rights over the lands within the watercourse or lake to the water's edge. These include the right of access over that land for the person (including family, employees, agents and stock), the right of grazing on that land for the person's stock, and the right to bring action against trespassers. Effectively these 'riparian' rights provide exclusive use and enjoyment of these lands. However, the State retains the power to remove these rights by appropriating the lands in whole, or part, for a purpose under the Act (e.g. to construct a weir or other work).

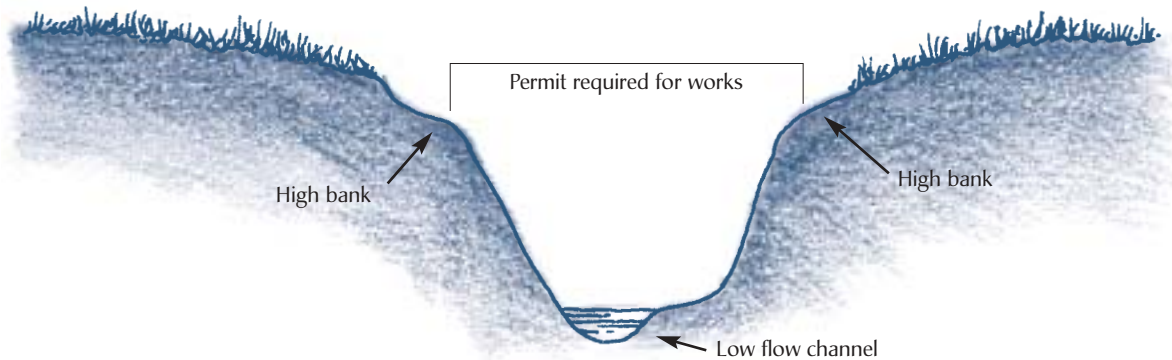
Specifically, this Act provides for protection against disturbances that may adversely affect the stability of bed and banks of streams and lakes, for example, the clearing of native vegetation, excavation, and placement of fill. It also relates to activities outside of these features that may adversely impact on water quality, for example, the dumping of waste that may wash into a watercourse or lake and degrade water quality or create an obstruction to flow. The protection of these areas is managed by QDNRM through a permitting system that has powers to issue 'stop work' notices.

FIGURE 9:
Figure showing
location of high bank



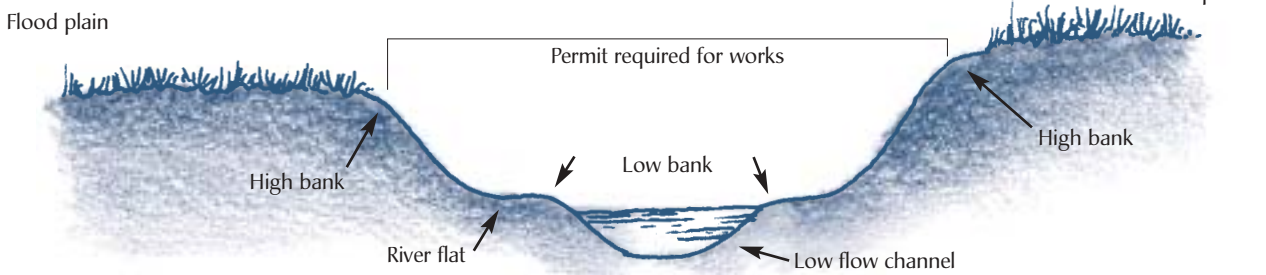


Upper reaches – where bed slope is relatively steep



Illustrations The Idea to Here

Middle reaches – where bed slope is moderate



Lower reaches – where bed slope is relatively flat

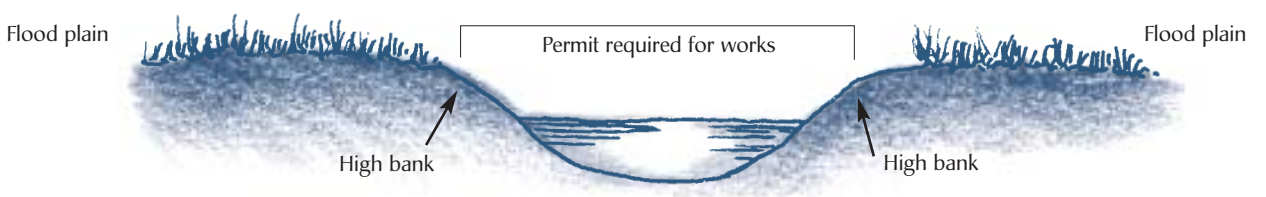


FIGURE 10:
High banks for the
purposes of the Water
Resources Act 1989

Given the importance of this Act, a cane grower intending to undertake an activity that will disturb the physical condition of a watercourse or a riparian area is required to first obtain a permit from their local QDNRM office. In assessing applications for permits, the QDNRM will consider:

- the season and how this may affect the impact of the activity on the river system,
- the possible effects of the activity on water quality,
- the reasons behind the cane grower wanting to undertake the activity,
- the long-term impacts on the sustainable use of the river system, and;
- the likely cumulative impacts on the river system that could accrue as a result of the activity.

These factors combined will then be assessed by the QDNRM office, and a permit issued, or not, depending on the potential impact of the activity on the river/riparian system.

Importantly, the Act also covers a number of situations that do not require a permit to be first obtained. For example, riverine disturbances related to works licensed under other sections of the Act (e.g. installing a pump), to approved activities undertaken by River Improvement Trusts and electricity authorities (authorised removal of sand and gravel), and to clearing undertaken in emergency situations such as fires. A regulation has also exempted authorised mining exploration and development activities, authorised clearing on leasehold lands (see the *Land Act*), and clearing of declared pest plants.


IMPLICATIONS: Before commencing any activity in watercourses or riparian areas that may affect bank and bed stability and associated water quality, contact your local QDNRM office to seek a determination on the location of the 'high bank' boundary. Once this is gained, the grower can apply to the QDNRM office for a permit to cover the activities they wish to undertake.

Vegetation Management Act 1999

This is the principal piece of legislation for the management of the State's native vegetation on freehold land. It seeks to secure the ecologically sustainable use of land, protection of biodiversity and other environmental and social values, as well as the prevention of land degradation and protection of water quality. Vegetation management on State (associated leasehold) lands is covered by the *Land Act 1994* (see below). The QDNRM administers this Act.

The following advice from CANEGROWERS relates to how to work within the Vegetation Management Act and provides some useful steps for a grower to follow if they are seeking to clear a significant area of vegetation:

1. Find out your farm's 'Lot on Plan Number' also known as your RP number, this will be in your Rates Bill.
2. Telephone the local QDNRM office with this number and ask if this area falls within an area designated as 'Remnant Vegetation'.

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- (a) Most farms will apparently fall outside of areas designated remnant. If the farm falls outside an area designated remnant, then the grower can proceed to clear the vegetation, as it is regrowth i.e. without the need for an approval.
 - (b) Some farms will fall within areas designated as remnant. If the farm falls within an area designated remnant, the grower should request that a 'Vegetation Management Officer' from the QDNRM office visit the farm to verify that the vegetation is indeed remnant. This person may also be able to assist them develop a 'Property Vegetation Management Plan' that will need to be a part of the tree clearing permit application. The application fee will be \$250.00.

This Property Vegetation Management Plan must be consistent with any approved Regional Vegetation Management Plan. In those cases where a Regional Vegetation Management Plan does not exist, policies exist under the Act that set out target objectives that will be used in the assessment of applications to clear native vegetation. The Property Vegetation Management Plan will be assessed against a set of codes that are used by the QDNRM to determine whether clearing can proceed. These codes cover requirements that watercourses and adjacent habitat are protected to maintain bank stability, water quality, aquatic habitat and wildlife habitat.

When preparing a Property Vegetation Management Plan for assessment, the Guides provided by QDNRM suggest that the requirements can be achieved if vegetation is retained in riparian areas of at least:

- 200 metres from each high bank of a river (stream order 5 and above: rivers more than 30 metres wide),
- at least 100 metres from each bank of a creek (stream orders 3 & 4: streams 5–30 metres wide), and;
- at least 50 metres from each bank of a waterway (stream orders 1 & 2: creeks or channels up to 5 metres wide).

In many canegrowing regions (including Wet Tropics, Central Queensland Coast and South-east Queensland) these distances are reduced to 50 metres for rivers and 25 metres for creeks and watercourses. The *State Policy for Vegetation Management for Freehold Land* contains information about the performance requirements and acceptable solutions that growers will need to meet when preparing their Property Vegetation Management Plan (Appendix B). This policy is worth having a look at, as

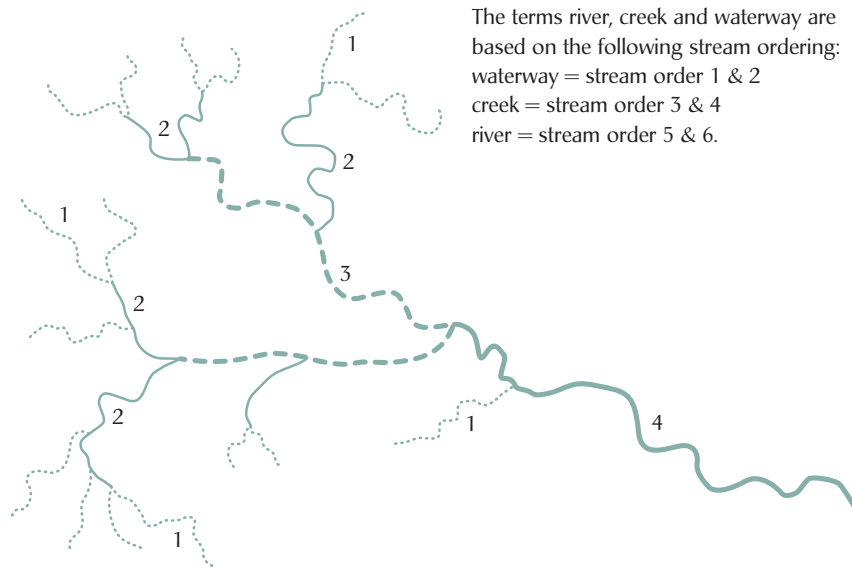


FIGURE 11:
Diagrammatic explanation of stream ordering

When two streams of the same order join, the resulting watercourse becomes one stream order larger. If two streams of different order join, the resultant stream is that of the larger stream.

Source: *Queensland State Policy for Vegetation Management on Freehold Land: Explanatory Notes to Code*, p. 13.

it provides details about why the widths outlined above are recommended and what environmental outcomes they are designed to achieve. It can be found in full on the www.dnr.qld.gov.au website in the vegetation management section.

IMPLICATIONS: Before clearing native vegetation on freehold land, apply for a permit from the local QDNRM office. Ensure that your permit is accompanied by a Property Vegetation Management Plan that takes account of the key features of the Guides listed above.

Land Act 1994

This is the principal legislation for the management of State-owned (Crown) lands, including leases, reserves, etc. Over 70 per cent of the land in Queensland is State-owned. The QDNRM administers this Act.

The Act places constraints on the clearing of trees in ‘critical areas’ on leasehold and other State-owned lands. Importantly, this includes riparian lands. A permit is required from the local QDNRM office to undertake clearing within a critical area, unless the clearing is for isolated trees as part of routine property maintenance, for example, replacement fence posts, etc. Local Tree Clearing Guidelines may also be available to assist in determining whether or not the proposed clearing will be authorised.

These provisions are secondary to the requirements of the *Water Act 2000* with respect to State lands within a boundary watercourse or lake.

IMPLICATIONS: If you are considering clearing trees or other vegetation on leasehold land within the watercourse or riparian area (as defined above), contact the local QDNRM office for a permit.

River Improvement Trust Act 1940

This Act provides powers for River Trusts, as established under the Act, to undertake works within streams for the purposes of flood mitigation and stream improvement or protection. The QDNRM administers this Act.

The Act does not provide River Trusts with powers to permit or control works undertaken by other bodies or persons. It does, however, give River Trusts the power to impose a notice on growers or other persons to prevent them from undertaking a work or activity that may be detrimental to the condition of a stream or may adversely affect the works of the River Trust. A notice may also be issued by the River Trust that requires a person to rectify damage caused by an activity. The notice binds successive growers. If the grower fails to comply with the notice, the Rivers Trust can undertake the work and recover costs from the growers.

IMPLICATIONS: Prior to undertaking works in streams or river/riparian areas, check with any local River Trust that the activity is assessed as not being detrimental to the stream or operations of the River Trust.

Rural Lands Protection Act 1985

This is the principal legislation for (among other things) the management and control of certain pests and weeds in the State. Certain animals and plants can be declared in various categories under the Act for the purposes of control (destroy, reduce or contain). The QDNRM administers this Act.

For the control of declared plants and animals on private lands (freehold and leasehold), the bed and banks of a non-tidal watercourse forming the boundary of a land parcel are deemed to be part of that private land. The Act requires occupiers of private lands to control all declared plants and animals. A person failing to do so may be served a notice by the local government authority or State to control particular plants or animals, in specified areas and by a set time. If the notice is not complied with, the local government authority or State may carry out the work listed in the notice and recover costs from the person. A notice binds successors in title.

IMPLICATIONS: Ensure that Farm Plans cover the management of declared plants and animals, and that the management strategies proposed are approved of by the grower's local QDNRM office.

Coastal Protection and Management Act 1995

This is the principal legislation for the management of the State's coastline, including stream estuaries and surrounding lands. It provides powers to control development and activities within these lands. The QEPA administers this Act.

A control district may be declared:

- a. over coastal waters; or
- b. over a foreshore and over water up to 400 metres inland from the high water mark along the foreshore; or
- c. at a river mouth or estuarine delta – over land up to 1000 metres inland from the high water mark at the river mouth or estuarine delta; or
- d. along tidal rivers, saltwater lakes and other bodies of internal tidal water – over land up to 100 metres from the high water mark along the river, lake, or body of water; or;
- e. over an island in coastal waters.

A control district may also include all or part of a coastal wetland, dune system or key coastal site and up to 100 metres from the wetland, system or site.

The QEPA can impose a notice to prevent or control activities, or to repair damage caused on lands within the distances noted above. The sorts of activities that are covered by this Act include clearing and in-stream or adjacent works such as groynes, piers and ramps. However, the Act does not cover the activities that impact on marine plants, as these are covered by the *Fisheries Act 1994* (see next Act).

IMPLICATIONS: If your property comes within the distances specified under this Act, contact the local QEPA office to ensure any activities they wish to undertake do not incur a notice or penalty.

Fisheries Act 1994

This is the principal legislation for the protection and management of the State's fresh and marine fishery resources, including habitat areas. The QDPI administers this Act.

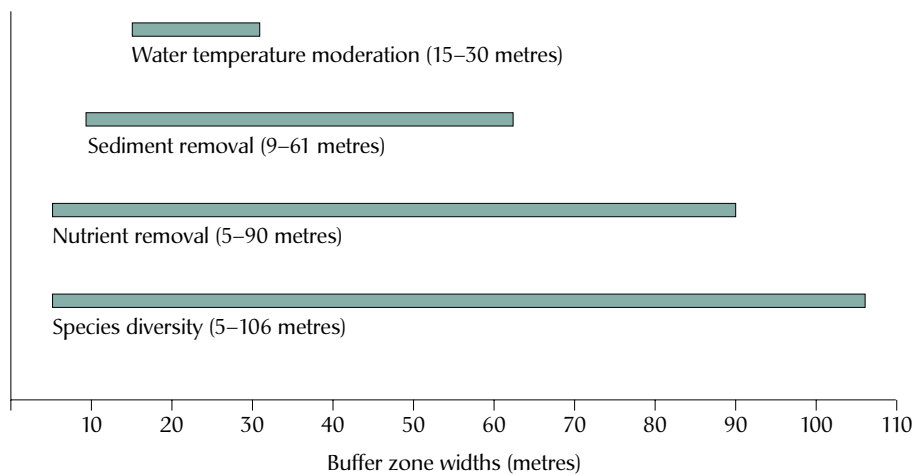
The clearing of marine plants (e.g. mangroves) is controlled through a permitting process. A Fish Habitat Code of Practice (FHC 003) has been developed by QDPI and CANEGROWERS under Section 51 of this Act – it is called *Canegrowers on-farm maintenance of drains with marine plants*.

In addition, a Fish Habitat Guides FHG 003 *Fish Habitat Buffer Zones* has been produced that specifies minimum buffer/riparian zone widths for specific functions (see Figure 12). As a result, buffer/riparian zone performance criteria will vary on a site-by-site basis depending on:

- i. The sensitivity of the adjacent fish habitat (e.g. the presence of a fish habitat area, or an important fish breeding, feeding, nursery habitat or migration route).
- ii. The intensity of the adjacent land-use (e.g. intensive agriculture, grazing, residential, industrial or natural).
- iii. The potential impacts of the adjacent land-use on fish habitats (e.g. smothering of important fish habitat due to erosion and sedimentation from land; algal blooms and low oxygen environments due to nutrient enrichment from land-based sources).
- iv. Site-specific characteristics including slope, soil types, erosion, vegetation type and cover.

As can be seen from Figure 12, the minimum buffer zone can be from 5–106 metres, depending on the function that it is performing. Fish habitat buffer zones of the different widths outlines above, can be declared by the QDPI to protect key marine and freshwater fisheries resources. Activities that may disturb such areas are, therefore, controlled by management plans and permits, and it is important to consult with the local QDPI office if the grower is intending to undertake operations in the watercourse or riparian area that could negatively impact upon particular fish species.

FIGURE 12: Range of (minimum) buffer widths for providing specific buffer functions.




Source: Bavins, M., Couchman, D. and Beumer, J. 2000, *Fisheries Guides for Fish Habitat Buffer Zones*, Department of Primary Industries, Queensland, Fish Habitat Guide FHG 003, p. 11.

IMPLICATIONS: Seek advice from the local QDPI office before undertaking any works in the river or riparian zone that could impact upon fish and fish habitat condition.

Nature Conservation Act 1992

This is the principal legislation for the conservation and management of the State’s native flora and wildlife. Under this Act, areas can be declared ‘protected’, with management of these areas subject to approval. The QEPA administers this Act.



A key goal of the Act is the preservation of endangered, vulnerable and rare species of flora and fauna. This can be achieved through recovery plans, conservation plans and voluntary conservation agreements. Riparian lands often contain these species. Many cane farms adjoin declared parts of reserves or other protected areas. Property plans and management practices should take account of the need to maintain the ecological health of these areas. This will require special care with farm operations such as pesticide application, use of fire and weed control.

IMPLICATIONS: Check with the local QEPA office about the occurrence of rare or threatened species in your area, and obtain a permit where necessary.

Environmental Protection Act 1994

This is the principal legislation for the protection of the State's environmental values. The Act imposes a general environmental duty of care on all persons, requiring them to take all reasonable and practicable measures to prevent or minimise likely environmental harm. The QEPA administers this Act.

The Act controls a wide range of activities (called environmentally relevant activities) by way of licence or permit, many of which could impact on riparian lands. It also provides power for the Agency to issue an environmental protection order on unauthorised activities. A complementary *Environmental Protection (Water) Policy 1997* has also been developed, and this policy should be consulted as it seeks to maintain the environmental values of water, for example, conserving aquatic ecosystems.

IMPLICATIONS: Prior to commencing activities in riparian lands, check with the local QEPA office to ensure proposed activities are not compromising environmental values and will not incur fines or prosecution under this Act.

Integrated Planning Act 1997

This is the principal legislation for land use planning by the State's local authorities. The Act provides powers for local authorities to declare and impose development constraints on growers and others within their jurisdiction. Operational works such as digging drainage canals and the extraction of sand, rock and gravel from rivers are also covered by this Act. In addition, the Act establishes an integrated development application assessment system that involves all State and statutory bodies with powers relevant to a proposed development. The removal of weeds is exempt from these requirements.

IMPLICATIONS: Prior to undertaking activities on riparian lands such as subdivision or construction of buildings, check with local government agencies that there are no development constraints and that planning approval will be granted.

OTHER STATES

For cane growers in New South Wales and Western Australia, the range of legislation impacting on riparian zone management is similarly extensive. Table 5 provides an overview of this legislation and divides it according to different aspects of river and riparian management. When considering undertaking works in the riparian zone, it is important to consult with the relevant local departmental authorities who are responsible – in New South Wales these are the Department of Land & Water Conservation; National Parks and Wildlife Service; Environment Protection Authority and NSW Agriculture. In Western Australia these are the Waters and Rivers Commission; Department of Conservation and Land Management; Agriculture Western Australia and Department of Environmental Protection.

TABLE 5: NSW and WA legislation relating to riparian land management use on cane farms

State	River/riparian management aspect	Statutes
New South Wales	Pollution / water quality	Protection of the Environment Administration Act 1992 Pollution Control Act 1970 Contaminated Land Management Act 1997 Environmental Offences & Penalties Act 1989 Protection of the Environment Operations Act 1998 Clean Waters Act 1970 Water Act 1912
	Ecosystem values Riparian Fish habitat	Coastal Protection Act 1979 National Parks & Wildlife Act 1974 Threatened Species Conservation Act 1995 Native Vegetation Conservation Act 1997 Fisheries Management Act 1994 Local Government Act 1993 Rivers and Foreshores Improvement Act 1948 Soil Conservation Act 1938 Wilderness Act 1987
	Catchment, land / water management	Catchment Management Act 1989 Coastal Protection Amendment Act 1998 Commons Management Act 1989 Drainage Act 1939 Forestry Act 1916 Irrigation legislation (range of Acts) Crown Lands (Crowns Lands Consolidation) Act 1989 Environmental Planning and Assessment Act 1979 Local Government Amendment (ESD) Act 1997 Rivers and Foreshore Improvement Act 1948 Roads Act 1993 Rural Fires Act 1997 Rural Lands Protection Act 1989 Water Supply Authorities Act 1987
Western Australia	Pollution / water quality	Environmental Protection Act 1986
	Resource and access	Rights in Water & Irrigation Act 1914 Country Areas Water Supply Act 1947 Fish Resource Management Act 1994
	Ecosystem values	Environmental Protection Act 1986 Waterways Conservation Act 1976 Conservation and Land Management Act 1984 Wildlife Conservation Act 1950
	Catchment, land / water management	Local Government Act Western Australia Planning Act Public Works Act Soil and Land Conservation Act 1945 Aboriginal Affairs Planning Authority Act 1972 Agriculture Act 1988 Land Administration Act 1997 Bushfires Act 1954
	Institutional arrangements for catchment management	Waterways Conservation Act 1976 Waterways and Rivers Commission Act 1997 Water Corporation Act 1995 Water Agencies (Powers) Act 1984 Water Services Coordination Act 1995 Agriculture Protection Board Act 1950 Western Australia Planning Commission Act 1985

Source: Mary Maher & Associates, 2000, *Australian River Management: A legislative framework for the Twenty-first Century*, Occasional Paper 2/00, Land & Water Australia, Canberra.

