



New South Wales

Timber Plantations (Harvest Guarantee) Regulation 1997

under the

Timber Plantations (Harvest Guarantee) Act 1995

His Excellency the Governor, with the advice of the Executive Council, has made the following Regulation under the *Timber Plantations (Harvest Guarantee) Act 1995*.

KIM YEADON, M.P.,

Minister for Land and Water Conservation

Explanatory note

The object of the *Timber Plantations (Harvest Guarantee) Act 1995* is to remove impediments to the harvesting of plantation timber so as to encourage the establishment of commercial timber plantations. In order to achieve this object the Act:

- (a) provides a scheme for the accreditation of timber plantations, and
- (b) removes the need to obtain licences under the *National Parks and Wildlife Act 1974* in connection with the carrying out of harvesting operations on accredited timber plantations, and
- (c) removes the need for development consent under Part 4 of the *Environmental Planning and Assessment Act 1979*, or environmental assessment under Part 5 of that Act, in relation to the carrying out of harvesting operations on accredited timber plantations, and
- (d) provides for the protection of the environment by requiring harvesting operations on accredited timber plantations to be carried out in accordance with timber plantation (environment protection) harvesting codes.

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Explanatory note

The object of this Regulation is to adopt such a timber plantation (environment protection) harvesting code. The code regulates the carrying out of harvesting operations on accredited timber plantations, for the purposes of protecting the environment.

The Regulation also provides for the payment of compensation where harvesting operations are required to be suspended or modified in order to protect unique or special wildlife values.

This Regulation is made under section 22 (Adoption and amendment of Codes by regulations) of the *Timber Plantations (Harvest Guarantee) Act 1995*.

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Timber Plantations (Harvest Guarantee) Regulation 1997

1 Name of Regulation

This Regulation is the *Timber Plantations (Harvest Guarantee) Regulation 1997*.

2 Commencement

This Regulation commences on 14 July 1997.

3 Adoption of Timber Plantation (Environment Protection) Harvesting Code 1997

For the purposes of section 22 of the *Timber Plantations (Harvest Guarantee) Act 1995*, the *Timber Plantations (Environment Protection) Harvesting Code 1997* set out in Schedule 1 is adopted.

4 Notes

The explanatory note, table of contents and notes in the text of this Regulation do not form part of this Regulation.

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Schedule 1 Timber Plantations (Environment Protection) Harvesting Code 1997

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(Clause 3)

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Glossary

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Timber Plantations (Environment Protection) Harvesting Code 1997

Part 1 Introduction

1 Name of Code

This Code is the *Timber Plantations (Environment Protection) Harvesting Code 1997*.

2 Introduction to this Code

- (1) This Code regulates the carrying out of harvesting operations on timber plantations that are accredited under the *Timber Plantations (Harvest Guarantee) Act 1995*, for the purpose of protecting the environment by minimising the impact of harvesting operations on environmental values.
- (2) This Code creates an obligation to protect environmental values by competently and consistently implementing the provisions of this Code.
- (3) If the owner or manager of an accredited timber plantation breaches this Code, either or both of the following may occur:
 - (a) the accreditation for the timber plantation may be cancelled,
 - (b) the owner or manager may be prosecuted under, and made subject to certain requirements of, the *National Parks and Wildlife Act 1974* (because a person carrying out harvesting operations on an accredited timber plantation is only exempt from the relevant provisions of that Act if the harvesting operations are carried out in accordance with this Code).
- (4) This Code has been prepared by the Director-General and approved by the Minister for Land and Water Conservation.

3 Application of this Code

This Code applies to all accredited timber plantations.

4 Glossary and definitions

- (1) Expressions used in this Code (or in a particular provision of this Code) that are defined in the Glossary at the end of this Code have the meanings given to them in the Glossary.
- (2) Expressions used in this Code that are defined in Part 1 of the *Timber Plantations (Harvest Guarantee) Act 1995* have the same meanings in this Code as the meanings given to them in that Part.

Part 2 Harvesting plans

5 Requirement to prepare harvesting plan

- (1) A harvesting plan must be prepared before any road construction work, or any thinning or clearfelling of trees, is carried out on an accredited timber plantation.
- (2) An existing harvesting plan may be updated or changed so that it covers a new activity for the purpose of complying with this clause.

6 Contents of harvesting plan

- (1) A harvesting plan must conform with this Code and show how it is to be applied to the harvesting operation to which the plan relates.
- (2) A harvesting plan is to comprise:
 - (a) a map, and
 - (b) a statement of conditions applying to the harvesting operation to which the plan relates.
- (3) A harvesting plan need only cover that part of the total accredited timber plantation that is subject to the particular harvesting operation to which the plan relates.
- (4) A harvesting plan must demonstrate that the owner or manager of the relevant accredited timber plantation has considered all the matters listed in clauses 7–9, to the extent that they are applicable to the relevant accredited timber plantation and the harvesting operation to which the plan relates.

7 Matters that must be included in harvesting plan—plantations more than 50 hectares

A harvesting plan prepared in relation to an accredited timber plantation greater than 50 hectares in area must include information about the following matters, which should be mapped where appropriate:

- (a) the location and boundaries of the harvesting area,
- (b) the period during which harvesting operations are to occur, including approximate start and finish dates,
- (c) the types of harvesting system to be employed and, where applicable, the permitted maximum slope,
- (d) areas excluded from harvesting or to which special prescriptions apply, for example, for the protection of flora and fauna or soil and water quality and details of special conditions or prescriptions appropriate to those areas,
- (e) slopes greater than 30 degrees in the harvesting area,
- (f) the location, construction method, drainage and maintenance of roads and crossings,
- (g) the location of watercourses, major drainage lines, wetlands and where those features are crossed by roads,
- (h) the location of log dumps and landings or areas where log dumps or landings are excluded,
- (i) siting and control measures for major snig tracks, where applicable,
- (i) the location of storage sites for fuels, and the location of sites for the servicing of machinery and the location of any areas where storage of fuel and the servicing of machinery are excluded,
- (k) wet weather and seasonal restrictions,
- (l) fire protection restrictions.

8 Matters that must be included in harvesting plan—plantations 50 hectares or less

A harvesting plan prepared in relation to an accredited timber plantation that is equal to or less than 50 hectares in area must include information about the following matters, which should be mapped where appropriate:

- (a) the location and boundaries of the harvesting area,
- (b) the period during which harvesting operations are to occur, including approximate start and finish dates,
- (c) the location of roads,
- (d) slopes greater than 30 degrees in the harvesting area,
- (e) the location and type of crossings,
- (f) fire protection restrictions.

9 Other matters to be considered in harvesting plan

In preparing a harvesting plan, the following matters must (if applicable) be considered:

- (a) the ecological values of wetlands and the protection of their function as filters,
- (b) the existence of any relics as defined in the *National Parks and Wildlife Act 1974* or the *Heritage Act 1977*.

Note. Obligations in respect of Aboriginal relics in national parks

The *National Parks and Wildlife Act 1974* defines a relic as any deposit, object or material evidence relating to indigenous and non-European habitation of New South Wales, and includes Aboriginal remains in that definition.

All such relics must be reported to, and must not be disturbed without the approval of, the National Parks and Wildlife Service.

Note. Other obligations in respect of relics

The *Heritage Act 1977* defines a relic as any deposit, object or material evidence which relates to the settlement of New South Wales, not being Aboriginal settlement, and which is 50 or more years old.

Such relics may need to be reported. You should check with the Heritage Office for detailed information or consult the relevant legislation.

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10 Availability of harvesting plan

A harvesting plan must be made available for inspection by any timber plantation officer (authorised as such by the Director-General) who asks to see it.

Part 3 Soil and water protection

11 Requirement to minimise soil erosion

- (1) The owner or manager of an accredited timber plantation must ensure that all reasonable steps are taken to minimise soil erosion from roads, snig tracks, extraction tracks, furrows caused by logging and fire breaks on the plantation.
- (2) For this purpose, the owner or manager of an accredited timber plantation must adopt at least one of the following measures, as appropriate in the circumstances:
 - (a) maintain vegetative cover,
 - (b) cover the ground with logging slash or debris,
 - (c) establish a grass cover,
 - (d) shape the surface of the ground so as to provide outfall drainage (that is, a means of draining a road or track that minimises or eliminates the use of drainage structures, in which the road or track surface is constructed with an outward slope, preferably 4% to 6%, in the same direction as that of the natural surface side slope, so as to shed runoff to the lower terrain side of the road),
 - (e) construct one of the following types of drainage structures:
 - (i) a crossdrain,
 - (ii) a mitre drain (that is, the extension of a table drain at a very low grade away from a road or track so as to spread concentrated flows at low velocity across a vegetated surface),
 - (iii) a relief culvert (that is, a drainage structure that transports water collected by a table drain from the road surface under the road formation for controlled discharge downslope).

(3) In this clause:

rollover bank or ***rollover drain*** means a type of crossdrain and may be:

- (a) a shallow drain, sometimes used in combination with a compacted, low earth crossbank (rollover crossbank) that is constructed across the full width of a road, or
- (b) a rollover drain, which is used on moderate to steep sections of roads and sized so that the road remains trafficable. Rollover drains mitigate erosion of the road surface by discharging water at numerous points on the low terrain side of the road.

runoff water means the portion of precipitation falling on a catchment area that flows from the catchment past a specified point.

table drain means a drain constructed along the side of a road between the shoulder and a cut batter, that collects and drains runoff water away from the road surface and also intercepts runoff water from cut batters that might otherwise flow on to the road surface.

vegetative cover means plant material that protects the soil surface from erosion caused by rain drops or running water and includes both living plants and dead plant material.

12 Requirements relating to drainage structures

- (1) If the owner or manager of an accredited timber plantation chooses to minimise soil erosion by means of drainage structures, those structures must be designed so as to convey the peak flow from a 1 in 5 year storm event (that is, a rainfall event predicted to occur on average once in five years).
- (2) The spacing between the drainage structures must comply with the following table or with currently acceptable standards (the recommended spacing may be interpolated for intermediate grades):

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Road or snig track grade	Spacing between drainage structures
5°	100m
10°	60m
15°	40m
20°	30m
25°	20m

- (3) Any crossbanks must have a minimum effective height of 35cm (if unconsolidated) or 20cm (if consolidated).

13 Construction and use of road drainage structures

- (1) A person carrying out harvesting operations on an accredited timber plantation must ensure:
- (a) that any road drainage structures that are used are installed during the construction of any road on the accredited timber plantation, and
 - (b) that any road drainage structures installed on such a road are maintained in effective working order.
- (2) In this clause:
road drainage structures means crossbanks, crossdrains, culverts and other constructions intended to divert water from roads.

14 Drainage of extraction and snig tracks

A person carrying out harvesting operations on an accredited timber plantation must complete any drainage structures to be used on extraction and snig tracks within 7 days of completing log extraction.

15 Construction and maintenance of fire breaks

- (1) A person carrying out harvesting operations on an accredited timber plantation must complete any drainage structures to be used on fire breaks during construction of the fire breaks concerned.
- (2) Fire breaks must be maintained to a standard sufficient to minimise soil erosion.

16 Watercourse crossings and drainage line crossings

- (1) Watercourse crossings and drainage line crossings may only be made using causeways, culverts or bridges.
- (2) The following sediment control techniques are to be used when a watercourse crossing or drainage line crossing is constructed or maintained on an accredited timber plantation:
 - (a) the crossing must be designed to convey the peak flow from a 1 in 5 year storm event (that is, a rainfall event predicted to occur on average once in five years),
 - (b) if pipe culverts are used to cross a watercourse, the pipes must be placed at stream bed level,
 - (c) the deposition of loose material in watercourses or drainage lines must be minimised,
 - (d) loose material inadvertently deposited in watercourses or drainage lines must be removed,
 - (e) roads and snig tracks must be drained within 40 metres of the crossing and, if practicable, the first drain should be located within 20 metres of the crossing, but no crossdrain should be closer than 5 metres to the crossing.
- (3) Short-term structures such as sediment fences may be used, if appropriate, to improve sediment control.
- (4) In this clause:

bridge means a structure designed to carry a road over a watercourse by spanning it.

causeway means a natural or constructed crossing that enables vehicles to ford a watercourse, drainage line or drainage depression, the pavement of which may be of concrete, gravel, bitumen, rock, logs or may simply use the natural surface.

sediment means particles of soil material that have been transported or deposited by weathering action.

17 Construction of roads and snig tracks

- (1) A person carrying out harvesting operations on an accredited timber plantation must avoid constructing roads and snigs tracks (and any associated fill batters) within 20 metres of a watercourse or within 10 metres of a drainage line, except at crossings.

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- (2) If this is not practicable, roads and snig tracks must be protected from erosion by providing a cover of logging slash or establishing a suitable cover, such as grass, at the completion of operations.

Part 4 Other matters relating to operations

18 Trees on protected land

Trees on protected land (within the meaning of the *Soil Conservation Act 1938*) must not be destroyed, lopped or topped without an authority from the Department of Land and Water Conservation.

19 Felling retained native trees

Native trees must not be felled within 20 metres of a watercourse unless they were planted as crop trees and form part of the accredited timber plantation.

20 Protecting Watercourses and drainage lines when felling trees

- (1) A person carrying out harvesting operations on an accredited timber plantation must ensure that directional falling techniques that steer trees away from watercourses and drainage lines are employed as far as possible.
- (2) If a tree falls into a watercourse as a result of harvesting operations, the head of the tree must be removed from the watercourse. However, the head of a tree felled into a drainage line may remain there if it will not restrict water flow or cause scouring of the channel.

21 Operation of harvesting and extraction machinery

- (1) Harvesting and extraction machinery must not enter areas of retained native vegetation that are within 20 metres of a watercourse.
- (2) Harvesting and extraction machinery must be operated so as to minimise damage to channels, banks of watercourses and drainage lines.

- (3) Harvesting and extraction machinery must be excluded from banks and channels unless the use of such machinery would result in less environmental damage than harvesting or extraction without such machinery. In such cases, only walk-over or other low impact techniques may be used.
- (4) Ground-based harvesting and extraction machinery must not be used on slopes greater than 30 degrees.

22 Log dumps and landings

Log dumps and landings must not be located within 20 metres of a watercourse or within 10 metres of a drainage line.

23 Wet weather conditions

A person carrying out harvesting operations on an accredited timber plantation must not harvest, extract, snig or haul during wet weather conditions if resulting rutting may lead to erosion and pollution of streams.

24 Storage and handling of fuels and oils

- (1) Fuels or oils must not be stored within 20 metres of a watercourse or within 10 metres of a drainage line.
- (2) Machinery must not be refuelled or serviced within 20 metres of a watercourse or within 10 metres of a drainage line.

25 Requirements for re-establishment

- (1) Re-establishment must not occur along watercourses and drainage lines below the 1 in 5 year flood level or the bank top, whichever is the lower.
- (2) If slope and soil conditions are such that minimal soil disturbance is likely to be caused, spot cultivation for planting may occur:
 - (a) within 20 metres of the 1 in 5 year flood level or the bank top of watercourses, or
 - (b) within 10 metres of the 1 in 5 year flood level or the bank top of drainage lines.

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- (3) Soil disturbance adjacent to watercourses and drainage lines during re-planting is to be minimised by:
 - (a) keeping stacks or windrows of debris at least 20 metres from the 1 in 5 year flood level or the bank top of watercourses and at least 10 metres from the 1 in 5 year flood level or the bank top of drainage lines, and
 - (b) keeping cultivation lines at least 20 metres from the 1 in 5 year flood level or the bank top of watercourses and at least 10 metres from the 1 in 5 year flood level or the bank top of drainage lines.
- (4) Fire must be excluded from retained vegetation adjacent to watercourses and drainage lines during planting.
- (5) Cultivation must occur generally on the contour.
- (6) Slopes greater than 30 degrees must not be line cultivated.
- (7) In this clause:

1 in 5 year flood level means the level reached by waters resulting from a 1 in 5 year flood event (that is, a flood event predicted to occur on average once in five years).

re-establishment means the establishment of a second or subsequent crop of trees following clearfelling of the standing crop. It includes not only planting of seedlings or sowing of seed but all preparation works necessary for the successful establishment of the new crop such as the disposal of logging slash, ripping and other cultivation, weed control and initial fertiliser application.

26 Special requirements for coastal areas north of Sydney

- (1) In coastal areas north of Sydney where bare ground between cultivation lines exceeds 30 per cent of the total interrow area, the owner or manager of an accredited timber plantation must protect against soil erosion by establishing a suitable cover crop by seeding within 2 weeks of completion of ground preparation.
- (2) In coastal areas north of Sydney where an accredited timber plantation is situated on sandy soils the owner or manager of the accredited timber plantation must keep cultivation lines at least 5 metres from the apparent centre of obvious drainage depressions.

- (3) In this clause:

interrow means the uncultivated area between cultivation lines.

Part 5 Native animals and plants

27 Native animals and plants

If approval for initial plantation establishment is required from local government or another authority, and a condition that areas of habitat be reserved for the protection of native plants and animals is applied, any such habitat must not be damaged by harvesting operations.

Part 6 Compensation to protect unique or special wildlife values

28 Outline of this Part

This Part:

- (a) sets out the circumstances in which compensation will be available in order to protect unique or special wildlife values, and
- (b) sets out matters relating to the provision of, and entitlement to, such compensation.

29 Requirement to give notice of a possible impact on unique or special wildlife values

- (1) The Director-General must be notified by the owner or manager of an accredited timber plantation as soon as the owner or manager becomes aware of any aspect of plantation operations that has an impact on unique or special wildlife values or is likely to have an impact on unique or special wildlife values.
- (2) This clause does not apply to an impact on a tree:
 - (a) that is one of a species listed in Schedule 1 to the *Threatened Species Conservation Act 1995*, and
 - (b) that was planted or otherwise established as a crop tree forming part or all of the accredited timber plantation.

30 Role of the Director-General

Once the Director-General has been notified of the existence or likelihood of any impact on unique or special wildlife values, the Director-General, or an officer of the Department of Urban Affairs and Planning nominated by the Director-General, must determine:

- (a) whether harvesting operations in all or part of the accredited timber plantation must be temporarily suspended while the situation is evaluated, and
- (b) the existence and extent of unique or special wildlife values, and
- (c) to what extent harvesting operations are likely to have an adverse impact on unique or special wildlife values, and
- (d) the extent of the direct loss, if any, arising from the temporary or permanent suspension of harvesting operations, including any reasonable losses incurred during the period when the entitlement to compensation is being evaluated, and
- (e) whether harvesting operations in all or part of the accredited timber plantation must be suspended (either permanently or for a specified period or periods) or modified so as to minimise the impact on unique or special wildlife values.

31 Effect of determination

The owner or manager of an accredited timber plantation must comply with a determination under clause 30 (a) or (e).

32 Availability of compensation

- (1) Compensation is available if harvesting operations in relation to an accredited timber plantation are delayed, restricted or precluded altogether under this Part in order to protect unique or special wildlife values.
- (2) Compensation is available only to owners or managers of accredited timber plantations affected by a determination under clause 30 that harvesting operations in all or part of the plantation must be suspended (either permanently or for a specified period or periods) or modified so as to minimise the impact on unique or special wildlife values.

- (3) The amount of compensation payable is to be determined by agreement between the Director-General and the owner or manager concerned, having regard to the Director-General's determination under clause 30 (d).
- (4) Compensation is to be paid out of moneys available to the Department of Urban Affairs and Planning and may be paid as a lump sum or in periodic amounts.
- (5) The payment of compensation under this Part is subject to a requirement that the owner or manager comply with a determination under clause 30 (e).

33 Procedure if parties fail to agree on compensation

- (1) If the Director-General and the owner or manager of an accredited timber plantation fail to agree on an amount of compensation payable under this Part, the parties may agree to appoint an independent arbitrator or if they fail to agree on an arbitrator, either party may refer the matter to the Minister.
- (2) On receiving a referral under this clause, the Minister must request the National Secretary of the Association of Consulting Foresters to appoint a member of the Association to arbitrate the dispute.
- (3) For the purposes of making a determination, an arbitrator appointed under this clause may vary a determination of the Director-General under clause 30 (d).
- (4) The determination of any such arbitrator as to an amount of compensation payable under this Part is final.

34 Time limit on compensation procedure

- (1) The investigation of unique and special wildlife values and any consequent determination must be completed within 6 months after the Director-General first receives notification of the suspected existence of unique or special wildlife values.
- (2) The Department can take no further action under this Part to protect those unique or special wildlife values once that period ends.

35 Effect on other legislation

Nothing in this Part prevents land affected by a determination under clause 30, or an interest in any such land, from being acquired under any other law or means available to the Director-General.

Glossary

batter means the uniform slope of the side of a constructed earth embankment, which is generally expressed as the ratio of run to rise, that is, a batter of 2 to 1 means the batter slope has a ratio of 2 units measured horizontally to 1 unit measured vertically, and which includes:

- (a) a fill batter, which is the side slope of an embankment formed by the placement of fill material, and
- (b) a cut batter, which is the side slope of an excavation such as occurs in a road cutting.

crop trees means trees planted or otherwise established that together comprise the plantation as distinct from native trees retained or established to protect watercourses or drainage lines or in some other way to protect or enhance environmental values.

crossbank means a formation of earth placed across a road, snig track, extraction track or fire break to divert water from the surface, which may be consolidated or unconsolidated.

crossdrain means a drain excavated across the full width of a road or track to divert water, including spoon drains, crossbanks and rollover banks.

cultivation means tilling of the soil in preparation for planting a crop and includes:

- (a) line cultivation, which is continuous tilling generally along or near to the contour, and
- (b) spot cultivation, which is the tilling of a small area sufficient for a single plant.

culvert means one or more adjacent enclosed conduits that allow water to flow under the formation of the road and includes:

- (a) a pipe culvert, which is circular in cross-section and generally constructed from concrete or steel, and
- (b) a box culvert which is square or rectangular in cross-section and can be constructed from pre-cast concrete units, insitu concrete, bricks or timber.

drainage depression means a shallow depression with smoothly concave cross-section that conveys runoff only during or shortly after heavy rainfall.

drainage line means a channel:

- (a) down which surface water naturally concentrates and flows, and
- (b) that conveys water only during or immediately after periods (that is, hours or days) of heavy rainfall, and
- (c) that displays one or more of the following features:
 - (i) evidence of active erosion or deposition, for example, gravel, pebble, rock or sand bed,
 - (ii) an incised channel of more than 30 cm depth with clearly defined bed and banks.

drainage structure means a crossbank, crossdrain, culvert or other structure used to divert water from roads, tracks and other places.

erosion means the wearing away of land by running water, rainfall, wind, ice or geological agents.

extraction track means a track along which a forwarder transports logs, fully supported off the ground, from the point of felling to a log dump or landing.

forwarder means a logging vehicle which transports logs, fully supported off the ground, between the point of felling and a log dump or landing.

fire break means an area of ploughed or cleared land, often linear in shape, made and maintained to check the spread of fire.

grade means a measure of slope from the horizontal plane and may be expressed in various ways including:

- (a) as a percentage (for example, when used to describe the longitudinal grade of a road), or
- (b) in degrees (for example, when used to describe natural surface ground slope and the longitudinal grade of a road), or
- (c) as a rise in run, such as “1 in 100” meaning a 1 unit vertical rise or fall in 100 units horizontally (for example, when used to describe the slope in drains and watercourses and the slope of batters).

interrow means uncultivated land between cultivation lines of trees.

log dump or log landing means an area in which logs are assembled and where preliminary processing may occur (for example, cross-cutting and sorting) before they are loaded on to trucks for road transport but does not include an area set aside for stockpiling of logs.

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snig track means a track along which logs are snigged.

snigging means the dragging of logs, either wholly on the ground or supported at one end, from the felling point to the log dump or landing by the use of wheeled or tracked vehicles.

unique or special wildlife means:

- (a) any species of vascular plant, or a population or community of plants, indigenous to New South Wales and listed in Schedule 1 to the *Threatened Species Conservation Act 1995*, or
- (b) any species of amphibian, bird, mammal or reptile indigenous to New South Wales (or known to periodically or occasionally migrate there) and listed in Schedule 1 to the *Threatened Species Conservation Act 1995*.

watercourse means a channel having defined bed and banks, down which surface water flows on a permanent or semi-permanent basis or at least, under natural conditions, for a substantial period after heavy rainfall within the catchment, and includes:

- (a) a river (which typically convey relatively large, continuous flows under average coastal and tableland conditions), and
- (b) a creek or stream (which is a smaller watercourse than a river and which usually forms a link between a drainage line and a river in a natural catchment flow path).

wetland means an area:

- (a) inundated with water on a temporary basis, or
- (b) inundated with water that is usually slow moving or stationary, or
- (c) inundated with water that is shallow, or
- (d) inundated with water that may be fresh, brackish or saline.