



**Guideline—Activities in a watercourse,  
lake or spring associated with a  
resource activity or mining operations**

WAM/2008/3435

© State of Queensland, Department of Natural Resources and Mines, 2012.

The Queensland Government supports and encourages the dissemination and exchange of its information. The copyright in this publication is licensed under a Creative Commons Attribution 3.0 Australia (CC BY) licence.



Under this licence you are free, without having to seek permission from DNRM, to use this publication in accordance with the licence terms.

You must keep intact the copyright notice and attribute the State of Queensland, Department of Natural Resources and Mines as the source of the publication.

For more information on this licence visit <http://creativecommons.org/licenses/by/3.0/au/deed.en>

# Contents

<b>Version history</b>	<b>1</b>
<b>1. Purpose</b>	<b>1</b>
<b>2. Who can use this guideline?</b>	<b>1</b>
<b>3. Where can an authority holder use this guideline?</b>	<b>2</b>
<b>4. Compliance with this guideline</b>	<b>2</b>
<b>5. Recording activities</b>	<b>2</b>
<b>6. Required outcomes</b>	<b>3</b>
<b>7. Legislative responsibilities</b>	<b>5</b>
<b>Definitions</b>	<b>6</b>
Definitions used in this guideline	6
Definitions taken from the <i>Water Act 2000</i> or other Acts	6

## Version history

Version	Date	Comments
1	15/04/2008	Guideline developed for activities in a watercourse, lake or spring associated with mining operations. Approved 15/04/2008
2	9/12/2010	Update departmental name, change references from <i>Integrated Planning Act 1997</i> to <i>Sustainable Planning Act 2009</i> and definitions updated as per legislation.
3	12/07/2012	New name for guideline to include activities associated with a resource activity. Expanded to allow for activities by holders of environmental authorities on land not subject to a resource authority. Previous title: Guideline - activities in a watercourse, lake or spring associated with mining operations.

## 1. Purpose

The purpose of this guideline is to allow activities in a watercourse, lake or spring associated with a resource activity or mining operations without the need for a riverine protection permit.

Activities include the destruction of native vegetation, excavation and placement of fill in a watercourse, lake or spring. The Water Regulation 2002 permits these activities provided the activity is in accordance with this guideline.

Clearing vegetation is regulated under the *Sustainable Planning Act 2009* (SPA) and in some cases a development approval for clearing vegetation will also be required.

This guideline outlines the requirements, providing outcomes and acceptable solutions to ensure activities minimise adverse impacts on water quality, water flow, vegetation and the physical integrity of the watercourse, lake or spring.

### 1.1 This guideline explains:

- who can use this guideline and where the guideline applies
- compliance with this guideline
- recording information
- required outcomes and acceptable solutions.

### 1.2 This guideline does not apply to:

- taking of or interfering with water that would require a water licence
- excavation for obtaining riverine quarry material from a watercourse or lake
- subsidence of a watercourse, lake or spring through mining operations
- activities in springs where the water is connected to artesian water, or subartesian water connected to artesian water, within the area covered by the Water Resource (Great Artesian Basin) Plan 2006.

## 2. Who can use this guideline?

This guideline may only be used by the holder of the following authorities (authority holder):

- an environmental authority (for a resource activity) under the *Environmental Protection Act 1994*
- a mineral development licence or mining lease (for mining operations) under the *Mineral Resources Act 1989*.

Contractors, subcontractors and other agents engaged by an authority holder must also use this guideline.

### 3. Where can an authority holder use this guideline?

This guideline may be used for an activity associated with any resource activity or mining operations on land subject to a resource authority.

Holders of an environmental authority (for a resource activity) may also use this guideline on land not subject to a resource authority. In these circumstances the guideline may only be used for investigation, construction and maintenance of infrastructure necessary for operations associated with the resource activity. Two considerations should be noted for development on land not subject to a resource authority:

1. This guideline does not authorise clearing of vegetation regulated under SPA on land not subject to a resource authority. A development approval for clearing vegetation may be required. For further information contact the local departmental office.
2. This guideline does not authorise access to land.

#### 3.1. Activities in a wild river area

For watercourses, lakes and springs in a wild river high preservation area, wild river special floodplain management area or in a nominated waterway as defined under the *Wild River Act 2005*, the guideline only applies to activities:

- for the control of non-native plants or declared pests in the area
- necessary for specified works in the area
- or
- installing or maintaining works or infrastructure required to support other development for which a development permit is not required.

The spatial coordinates relating to the locations of a wild river area can be obtained by contacting the Department of Environment and Heritage Protection (DEHP) or accessing the Wild Rivers Map on the DEHP website <<http://www.ehp.qld.gov.au/>>.

### 4. Compliance with this guideline

The authority holder must comply with all sections of this guideline. The authority holder is responsible for actively self-managing its activities and those of its contractors and subcontractors to ensure compliance with this guideline at all times.

The department may undertake audits to ensure compliance with this guideline. Activities must be carried out in accordance with this guideline or under a riverine protection permit issued under section 269 of the *Water Act 2000* (Water Act). Penalties for non-compliance apply under the relevant legislation.

For further clarification about the requirements, purpose or extent of this guideline the authority holder should seek advice from the local departmental office before commencing activities.

### 5. Recording activities

The authority holder must maintain records of activities carried out under this guideline. Records are to be retained for a minimum of two years after completion of the activity and must be made available to the department on request.

Information that must be recorded for each activity site includes:

- any documentation relating to the planning of activities
- activity site location and site access details
- commencement and completion dates
- the disposal location(s) and quantity of spoil material removed
- the disposal location(s) and quantity of native vegetation removed from the site
- the plant equipment used e.g. size of excavator, number and type of trucks
- before, during and post activity photographs of the site
- impact management and rehabilitation details
- incidents of unanticipated failure of management methods and subsequent remedial action.

## 6. Required outcomes

The table below outlines the required outcomes and acceptable solutions that must be achieved when undertaking activities.

Required outcome	Acceptable solutions (proponents can propose an alternative solution to meet the required outcome)
<p>Activity is limited to the extent necessary; or as an unavoidable part of the construction, installation, removal, maintenance or protection of infrastructure; or the protection and enhancement of the stability of a watercourse, lake or spring.</p>	<p><b>Acceptable solutions to limit impact of activities:</b></p> <ul style="list-style-type: none"> <li>• Limit the activities to the extent necessary as stated in the record of the activity.</li> <li>• Restrict the area of disturbance to the area necessary as stated in the record of the activity.</li> <li>• Use an existing access track instead of constructing a new access track.</li> <li>• Minimise the number of bank cuttings and fills (e.g. for access tracks) to the extent necessary.</li> <li>• Avoid destroying mature native trees in association with destruction of non-native vegetation (e.g. weed control).</li> </ul>
<p>Carrying out the activity must not adversely impact water quality within the watercourse.</p>	<p><b>Acceptable solutions to not adversely impact water quality within the watercourse</b></p> <ul style="list-style-type: none"> <li>• Divert water run off around areas of disturbance.</li> <li>• Prevent or minimise water turbidity by using sediment traps.</li> <li>• Avoid carrying out activities on the outside of the watercourse bend, on steep banks or where the soil type is prone to erosion (dispersive soils).</li> <li>• Store, refuel and maintain all machinery used in the activities outside the outer banks of the watercourse.</li> <li>• Limit the amount of fill placed under the authority of this guideline to fill which occurs naturally and is free from contamination i.e. does not contain weeds, chemicals, oils, pesticides, trash, etc.</li> </ul>

Required outcome	Acceptable solutions (proponents can propose an alternative solution to meet the required outcome)
<p>Carrying out the activity must not permanently impound or impede the natural flow of water within the watercourse.</p>	<p><b>Acceptable solutions to not impound or impede the natural flow of water within the watercourse.</b></p> <ul style="list-style-type: none"> <li>• Construct drainage and discharge structures without altering the natural bed and bank profile.</li> <li>• Spread material excavated that is not waste material evenly within the bed and banks of the watercourse so that it does not interfere with the flow of water.</li> <li>• Contain waste at least 50m from the outer banks of watercourses and lakes. Remove all remaining waste materials from the site after completing the activities.</li> <li>• Avoid stockpiling of fill within the bed and banks.</li> <li>• Ensure natural stream bed controls or features that create natural waterholes are not lowered or removed.</li> <li>• Ensure access tracks do not interrupt low flow along the watercourse.</li> <li>• Orientate any access tracks, crossings or culverts perpendicular to the stream channel within a tolerance of <math>\pm 10^\circ</math>.</li> <li>• Ensure uninterrupted low flows and minimise the occurrence of blockage of culverts caused by flood-borne debris by selecting culverts of sufficient size.</li> </ul>

Required outcome	Acceptable solutions (proponents can propose an alternative solution to meet the required outcome)
Carrying out the activity must not result in de-stabilisation of the bank associated with the watercourse.	<p><b>Acceptable solutions that will not result in de-stabilisation of the bank associated with the watercourse.</b></p> <ul style="list-style-type: none"> <li>• Cut trees near or at ground level to retain the root mass in the ground, other than removing trees to build infrastructure.</li> <li>• Use bed and bank stabilisation measures such as rock revetment, reinforced matting and large woody debris, log piling or similar.</li> <li>• Orientate ramps cut into the bank for crossings are downstream.</li> <li>• Construct access tracks that are: <ul style="list-style-type: none"> <li>• provided with a scour apron and cut off the wall on the downstream side sufficient to prevent bed erosion</li> <li>• orientated perpendicular to the stream channel within a tolerance of <math>\pm 10^\circ</math></li> <li>• located at riffles.</li> </ul> </li> <li>• Stabilise mechanically cleared banks before clearing adjacent areas.</li> <li>• Ensure fill placed in the bed of the stream does not redirect flow into a bank.</li> <li>• Use only naturally occurring fill for backfill around in-stream structures and/or to return a bank profile to pre-disturbance condition.</li> <li>• Revegetate areas of bank cleared of vegetation and not required for the final work with trees, shrub and grasses endemic to the area.</li> </ul>

### 6.1 Best Practice Principles

Best practice principles promote actions to enhance riverine management outcomes when carrying out an activity. The fact sheet Riverine management—a best practice approach when carrying out activities in a watercourse, lake or spring can be found on the department’s website <[www.derm.qld.gov.au](http://www.derm.qld.gov.au)>. Authority holders are encouraged to draw on the principles outlined in the fact sheet when using this guideline.

## 7. Legislative responsibilities

Activities carried out in accordance with this guideline are permitted only for the purposes of the Water Act. Compliance with this guideline does not remove the authority holder’s obligation to comply with other relevant legislation.

All Queensland government Acts are listed on the Office of the Queensland Parliamentary Counsel website <[www.legislation.qld.gov.au](http://www.legislation.qld.gov.au)>.

## Definitions

### Definitions used in this guideline

**Access tracks** are constructed to allow stock, vehicles and machinery (excavators and so on) to safely and easily move into, along, across and out of a stream channel. Access tracks commonly involve the cutting and/or filling of a section of bank to provide reasonable track grades.

**Activity** means destroying vegetation, excavating or placing fill in a watercourse, lake or spring.

**Activity site** is a unique location where an activity takes place. A project may include multiple activity sites provided the activity sites are in different reaches of the watercourse. A reach is the stretch of water visible between bends in a river or channel. Note: laterally adjacent activities are considered to be a single activity site.

**Authority holder** is the holder of:

- an environmental authority granted for a resource activity under the *Environmental Protection Act 1994*.
- a mineral development licence or mining lease (for mining operations) under the *Mineral Resources Act 1989*.

**Mature native trees** are trees >20 centimetres diameter measured at 1.3 metres from the ground.

**Mining operations** means mining activities carried out on land over which there is a mineral development licence or mining lease under the *Mineral Resources Act 1989*.

**Waste** means left over material or an unwanted by-product of activities in a watercourse, lake or spring associated with mining operations that does not have any commercial use or value.

### Definitions taken from the *Water Act 2000* or other Acts

**Clear**, for vegetation—(a) means remove, cut down, ringbark, push over, poison or destroy in any way including by burning, flooding or draining; but (b) does not include destroying standing vegetation by stock, or lopping a tree.

**Destruction**, of vegetation, means the removing, clearing, killing, cutting down, felling, ringbarking, digging up, pushing over, pulling over or poisoning of the vegetation.

**Environmental authority** means an environmental authority granted under the *Environmental Protection Act 1994* for a resource activity.

**Fill** means any kind of material in solid form (whether or not naturally occurring) capable of being deposited at a place. Fill does not include material that forms a part of, or is associated with, a structure constructed in a watercourse, lake or spring including a bridge, road, causeway, pipeline, rock revetment, drain outlet works, erosion prevention structure or fence.

**Infrastructure** means plant or works including for example, communication systems, compressors, powerlines, pumping stations, reservoirs, roads and tracks, water storage dams, evaporation or storage ponds and tanks, equipment, buildings and other structures built for the purpose and

duration of the conduct of the petroleum activity(ies) including temporary structures or structures of an industrial or technical nature, including, for example, mobile and temporary camps.

**Lake**, includes:

- a) a lagoon, swamp or other natural collection of water, whether permanent or intermittent
- b) the bed and banks and any other element confining or containing the water.

**Outer bank**

The outer bank, at any location on one side of a watercourse is, if there is a floodplain on that side of the watercourse, the edge of the floodplain that is on the same side of the floodplain as the watercourse. If there is not a floodplain on that side of the watercourse, the outer bank is the place on the bank of the watercourse marked by either a scour mark, a depositional feature or if there are two or more scour marks, two or more depositional features or one or more scour marks and one or more depositional features, whichever scour mark or depositional feature is highest. If, at a particular location in the watercourse there is a floodplain on one side of the watercourse and the other side of the watercourse is confined by a valley margin, the outer bank on the valley margin side of the watercourse is the line on the valley margin that is at the same level as the outer bank on the other side of the watercourse.

**Quarry material**

1. Quarry material means material, other than a mineral within the meaning of any Act relating to mining, in a watercourse or lake.
2. Quarry material includes stone, gravel, sand, rock, clay, earth and soil unless it is removed from the watercourse or lake as waste material.

**Resource activity** is an activity that involves—

- a) a geothermal activity that, under the *Geothermal Energy Act 2010*, is an authorised activity for a geothermal tenure
- b) a GHG Storage activity that, under the *Greenhouse Gas Storage Act 2009*, is an authorised activity for a greenhouse gas storage authority under that Act
- c) a mining activity that, under the *Mineral Resources Act 1989*, is an authorised activity for a mining tenure
- d) a petroleum activity that is
  - i. an activity that, under the *Petroleum Act 1923*, is an authorised activity for a petroleum tenure under that Act  
or
  - ii. an activity that, under the *Petroleum and Gas (Production and Safety) Act 2004*, is an authorised activity for a petroleum authority under that Act.

**Resource authority** means land subject to a permit, authority, lease, tenement or licence granted under *Greenhouse Gas Storage Act 2009*, *Geothermal Energy Act 2010*, *Mineral Resources Act 1989*, *Petroleum Act 1923* or *Petroleum and Gas (Production and Safety) Act 2004*.

**Specified works** means:

- a) infrastructure and works prescribed under a regulation to be necessary for disaster management  
or
- b) desnagging that is the minimum necessary to allow safe navigation of a marked navigable channel  
or
- c) the following infrastructure and works:
  - i. roads
  - ii. railways

- iii. jetties and boat ramps for use by the public
- iv. works for the rehabilitation of land, including, for example, rehabilitation of abandoned mines
- v. infrastructure for the transmission or distribution of electricity
- vi. pipelines
- vii. conveyor belts
- viii. cables
- ix. other infrastructure, prescribed under a regulation, that relates to the transportation, movement, transmission or flow of anything through a wild river area including, for example, goods, materials, substances, matter, particles with or without charge, light, energy, information and anything generated or produced.

**Spring** means the land to which water rises naturally from below the ground and the land over which the water then flows.

**Vegetation** means native plants including trees, shrubs, bushes, seedlings, saplings and reshoots and for a wild rivers area, includes dead vegetation.

### **Watercourse**

A watercourse is a river, creek or other stream, including a stream in the form of an anabranch or a tributary, in which water flows permanently or intermittently, regardless of the frequency of flow events, in a natural channel, whether artificially modified or not; or in an artificial channel that has changed the course of the stream. It includes any in-stream islands, benches and bars located in it. Further, a watercourse is anywhere in a river, creek or other stream that is:

1. upstream of the downstream limit of the watercourse
2. downstream of the upstream limit, if there is an upstream limit of the watercourse
3. between the outer bank on one side of the watercourse and the outer bank on the other side of the watercourse.

A watercourse does not include a drainage feature but does include in-stream islands, benches or bars.

Note: generally, the non-tidal boundary (watercourse) of land bounded by a watercourse, as provided for under the *Survey and Mapping Infrastructure Act 2003*, would not correspond precisely with the line of the outer bank of a watercourse as defined under the Water Act.