



# GUIDELINE – Activities in a watercourse, lake or spring carried out by an entity.

---

## I. Summary

This Guideline may only be used by an Entity listed under Section 2 of this Guideline when destroying vegetation, excavating, or placing fill in a watercourse, lake or spring (an ‘activity’)<sup>1</sup> in association with the construction, installation, removal, maintenance or protection of infrastructure<sup>1</sup> under the control of the Entity, or for the establishment and maintenance of flow efficiency around such infrastructure, or for activities associated with restoration, flood mitigation, erosion protection or weed control.

The Entity may carry out an activity provided the activity is carried out in accordance with this Guideline, which is permitted under sections 49, 50 and 51 of the *Water Regulation 2002* (the ‘Regulation’). Such activities may proceed without a permit granted under section 269 of the *Water Act 2000* (the ‘Act’).

The Entity accepts the responsibility to actively self-manage its activities and those of its contractors and subcontractors to ensure compliance with this Guideline at all times and recognises that an activity that is inconsistent with this Guideline, or for which compliance with this Guideline cannot be reasonably achieved, will require authorisation by a permit under section 269 of the Act. Where there is any doubt about the requirements, purpose or extent of this Guideline the Entity should seek advice from an office of the Department of Natural Resources and Water (‘NRW’) in the locality before commencing activities.

This Guideline does not remove the requirement for the Entity to obtain the consent of the owner(s) of land adjoining the watercourse, lake or spring, if necessary, or provide right of access across other land to the watercourse, lake or spring.

This Guideline does not apply to activities in:

- a wild river area declared under the *Wild Rivers Act 2005*; and
- springs in which 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*.

---

<sup>1</sup> See definitions under section 9 of this Guideline

## **2. Entities**

This Guideline may only be used by an Entity listed under this section. The following are approved by the chief executive administering the *Water Act 2000* to be Entities that may operate under this Guideline:

1. A local government under the *Local Government Act 1993*
2. A local government owned corporation (LGOC) under the *Local Government Act 1993*
3. A government department declared under the *Public Service Act 1996*
4. The Queensland Electricity Transmission Corporation Limited (ACN 078 849 233), trading as Powerlink
5. Ergon Energy Corporation Limited (ABN 50 087 646 062)
6. Energex Limited (ABN 40 078 849 055)
7. Queensland Rail (ABN 47 564 947 264)

## **3. Purpose of this guideline**

This Guideline applies only to activities that are necessary for the construction, installation, removal, maintenance or protection of infrastructure under the control of the Entity, for the establishment and maintenance of flow efficiency around such infrastructure, or for activities associated with restoration, flood mitigation, erosion protection or weed control.

Activities must not exceed an amount necessary to achieve the required outcomes.

To remove any doubt, this Guideline does not apply to:

- excavation for obtaining quarry material; or
- excavation or placing fill in a way that would interfere with the flow of water in a watercourse, lake or spring to the extent a water licence would be required under the *Water Act 2000*.<sup>ii</sup>

## **4. Legislative responsibilities**

Activities carried out in accordance with this Guideline are permitted only for the purposes of the *Water Act 2000*. Compliance with this Guideline does not remove the Entity's obligation to fully comply with all other relevant legislation, including:

- *Aboriginal Cultural Heritage Act 2003*;
- *Environmental Protection Act 1994*;
- *Fisheries Act 1994*;
- *Integrated Planning Act 1997*;
- *Land Act 1994*;
- *Land Protection (Pest and Stock Route Management) Act 2002*;
- *Native Title Act 1993 (Cwth)*;
- *Nature Conservation Act 1992*;

---

<sup>ii</sup> If it is anticipated that works or activities may conserve water or retard the flow of water downstream or may redirect the flow of water then a licence to interfere with the flow of water may be required and advice is to be sought from NRW before commencing activities.

- *Plant Protection Act 1989;*
- *River Improvement Trust Act 1940;*
- *Vegetation Management Act 1999;*
- *Wet Tropics World Heritage Protection and Management Act 1993;*
- *Wild Rivers Act 2005.*

In particular, the Entity should note this Guideline does not provide exemption from the provisions of the *Vegetation Management Act 1999* and an additional, separate development approval under the *Integrated Planning Act 1997* may also be required to allow such activity. An Entity contemplating destruction of vegetation in a watercourse, lake or spring should seek separate advice from the Vegetation Management group of NRW before commencing activities under this Guideline, unless the activity is not assessable development under the *Integrated Planning Act 1997* or an exemption is provided under another Act.

## **5. Planning activities**

When planning projects, the Entity must consider all relevant matters to determine what activities will be undertaken and the potential impacts from those activities. The Entity must investigate and collate data concerning the potential impacts and document proposed measures to minimise them.

The level of investigation and data collection should reflect the sensitivity of a site and the potential for the activities to adversely impact on the watercourse, lake or spring. Generally, for activities that involve destruction of vegetation with an overall area of 0.25 hectares or more or excavating or placing fill of a volume of 500 cubic metres or more, a higher level of investigation and design would be appropriate. Information collected during the investigation and design of a project must be made available to NRW on request.

Matters that must be considered by the Entity in planning activities and assessing potential impacts include:

- (a) the effects of the proposed activity on water quality;
- (b) the quantity of vegetation to be destroyed or material to be excavated or placed;
- (c) the type of vegetation to be destroyed or material to be excavated or placed;
- (d) the seasonal factors influencing the watercourse, lake or spring from time to time;
- (e) the position in the watercourse, lake or spring of the vegetation to be destroyed or the proposed excavation or placing of fill;
- (f) the reasons for carrying out the activity;
- (g) whether, and to what extent, the activity may have an adverse effect on the physical integrity of the watercourse, lake or spring.

### **5.1. Impact statement**

The measures necessary to mitigate the impacts of activities at individual sites must be considered at the planning and design stage of each project or activity. For this purpose, the entity must collect and record relevant information for each activity site, including:

- the identity and site location of each watercourse, lake or spring that will be subjected to activities;
- the location within the watercourse, lake or spring that may be impacted by the proposed activities;

- the proposed project including details of the purpose of the project, activities involved and timing of activities;
- the type and area of vegetation to be destroyed, and the method of destruction at each activity site,
- estimated volumes of material to be excavated from, or fill to be placed at each activity site.

## **5.2. Planning and design**

The design of infrastructure and planning for works, construction, maintenance and operation should be carried out with consideration for:

- where practical, alignment of structures perpendicular to the direction of water flow;
- where practicable, alignment of cuttings in watercourse banks in the downstream direction;
- the alignment and shape of structures to minimise the potential for scour;
- positioning of structures on straight reaches of watercourses and avoiding locating on bends;
- hydrologic and hydraulic characteristics of the site and potential changes resulting from the presence of the structure;
- preservation of natural controls creating waterholes in the bed of the watercourse by not lowering or otherwise destabilising them during the activities;
- maintenance of the existing course of the low flow channel of the watercourse;
- measures to minimise interference with the flow of water during flood events and minimise the potential for changes to flood heights and flood flow paths;
- not impounding or otherwise unduly interfering with the flow of water in the watercourse including provision to convey low flows past the site;
- where appropriate, measures to prevent potential migration of adverse impacts upstream and downstream of the structure (eg rock protection works in the activity site to prevent bed and/or bank erosion);
- inclusion of erosion control and prevention measures;
- selection of sites for construction of new infrastructure in previously disturbed areas;
- utilisation of existing crossings for temporary access during the construction or maintenance of infrastructure.

## **6. Notification**

Where it is proposed to destroy an area of native vegetation greater than 2 hectares or excavate or place fill to a volume greater than 5,000 cubic metres the Entity should notify the local office of NRW at least 5 business days before commencement of the activity.

Notification must include the following:

- name of the Entity and contact details of the responsible person;
- name of watercourse or lake where activity will occur;
- location of activity as latitude/longitude or northing/easting or lot/plan;
- reason for the activity;
- the estimated area of vegetation to be destroyed, or volume of material to be excavated or volume of fill to be placed.

## **7. Impact management during activities**

The Entity must take all reasonable and practical measures to ensure that adverse impacts of activities are minimised.

Impacts, such as erosion, bank instability and temporary hydraulic changes may be associated with activities. Measures to control impacts from activities must be documented by the Entity and addressed in accordance with the following principles:

- the area of disturbance must be no greater than the minimum area necessary for the purpose;
- the area of bed and banks disturbed by the activities must be stabilised regardless of previous stability;
- the extent and duration of bare surface exposure must be minimised, and protected from weathering, rain drop impact, and water runoff;
- clean water run-off must be diverted around areas of disturbance where practicable;
- bed and bank stability must be managed to minimise erosion and reduce sedimentation;
- where practicable, sediment must be captured and retained on-site;
- machinery to be used in carrying out the activities must be selected on the basis of a type and size necessary and capable of safe operation to achieve minimal disturbance of the site;
- constructed drainage and discharge structures must not alter the natural bed and bank profile.

The minimum mitigation measures to be undertaken by the Entity for each activity in order to protect the riverine environment are outlined below.

### ***7.1. Destruction of vegetation***

When destroying vegetation the Entity must observe the following conditions:

- destruction of vegetation must be confined to those areas necessary and kept to a minimum required for safe construction;
- limits of disturbance must be delineated in the field by clearly marking the vegetation on the outer perimeter of the activity site with flagging tape or paint;
- mature trees may be destroyed only where there is no reasonable alternative;
- where possible, trees must be cut near or at ground level to retain the root mass in the ground;
- progressive stabilisation and, where appropriate, revegetation of disturbed areas must occur as soon as possible after completion of activities.

### ***7.2. Excavating and placing of fill***

When excavating or placing fill the Entity must operate in accordance with the following:

- in order to minimise adverse impact on water quality, where practicable activities in watercourses must be timed to coincide with periods of no or low flow;
- in the Wet Tropics World Heritage Area, activities must be carried out in accordance with the *Wet Tropics Management Plan 1998* and associated permit conditions;
- activities must be completed as quickly as possible;
- excavating and placing fill must be undertaken in a way that does not interfere with the flow of water to the downstream environment and downstream users;
- where practical, sediment generated by activities must be retained on site by sediment traps;

- material excavated that is not waste material must be spread evenly within the bed and banks of the watercourse such that it does not interfere with the flow of water;
- where activities may disturb acid sulphate soils, refer to the *State Planning Policy 2/02 Guideline: Planning and Managing Development involving Acid Sulfate Soils* and follow management principles in accordance with the Soil Management Guidelines in the *Queensland Acid Sulfate Soil Technical Manual*;
- machinery used in the activities must be stored, refuelled and maintained outside the high banks of a watercourse or lake.

### **7.3. Waste management**

The following waste management hierarchy must be followed:

- waste avoidance (eg. Minimise the area of vegetation to be destroyed);
- waste re-use (eg. Wherever possible, spoil material excavated from beds and banks must be used for backfill around in-stream structures and to return the bank profile to pre-disturbance condition);
- waste recycling (eg. If practical, cleared vegetation, excluding weed species, must be mulched on-site and utilised in adjacent areas to assist in rehabilitating the disturbed site);
- waste disposal (eg. All waste material must be contained during construction. Stockpiles must be protected and located at least 50m from the high banks of watercourses and lakes. It should be noted that release of sediment to a watercourse is an offence under the provisions of the *Environmental Protection (Water) Policy 1997*. Upon completion of the activities, all remaining waste materials must be removed from the project site and disposed of in appropriate facilities).

### **7.4. Rehabilitation**

Upon completion of activities, the site must be rehabilitated to a condition which will promote the ongoing physical and biological integrity of the activity site. Rehabilitation must aim to achieve maintenance or betterment of water quality and bank stability by:

- where practical, revegetating disturbed areas with native trees, shrubs and grasses endemic to the area; and/or
- installation of erosion protection measures where appropriate using bed and bank stabilisation measures such as rock revetment, reinforced matting, gabions, large woody debris, log piling or similar.

### **7.5. Signage**

When carrying out activities under this Guideline, Entities should consider erecting signage at the work site to inform the public that the activities are being carried out under the authority of this Guideline.

### **7.6. Accessibility during activities**

The site must be available for inspection by officers of NRW at all times to enable checking that activities are being/have been carried out in accordance with this Guideline.

## **8. Recording of activities**

The Entity must maintain records of activities carried out during work projects within job files. The extent of the records should reflect the extent of activities associated with each project. These file records are to be retained for a minimum of 2 years after completion of the project works and must be made available to NRW on request.

Minimum 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 completed dimensions/amounts of the area of vegetation destroyed, material excavated and fill placed.

For those activities that require a higher level of investigation and design, generally where the activities involve destruction of vegetation with an overall area of 0.25 hectares or more or excavating or placing fill of a volume of 500 cubic metres or more, the following additional information must be recorded:

- the disposal location/s and quantity of spoil material removed;
- the quantity of vegetation removed from the site;
- the plant used eg. size of excavator, number and type of trucks;
- before, during and post activity photographs of the site;
- rehabilitation information;
- incidents of unanticipated failure of management methods and subsequent remedial action.

## **9. Definitions**

**activity** means destroying vegetation, excavating or placing fill in a watercourse, lake or spring.<sup>1</sup>

**Entity** means an Entity listed under Section 2 of this Guideline.<sup>1</sup>

**fill** means any kind of material in solid form (whether or not naturally occurring) capable of being deposited at a place.<sup>2</sup> (For clarity, 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 structures and works of all kinds constructed or to be constructed in, on, over or adjacent to a watercourse, lake or spring, by an *Entity* and includes:

1. Works as defined under section 12 of the *Electricity Act 1994*;
2. Structures such as road crossings, access tracks, causeways, bridges, levees, erosion protection works, drainage structures;

but excludes any works that take water from, or interfere with the flow of water in, a watercourse, lake or spring, or works that control the flow of water into or out of a watercourse, lake or spring in a drainage and embankment area.<sup>1</sup>

**lake** includes—

- (a) a lagoon, swamp or other natural collection of water, whether permanent or intermittent; and
- (b) the bed and banks and any other element confining or containing the water.<sup>2</sup>

**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.<sup>2</sup>

**spring** means the land to which water rises naturally from below the ground and the land over which the water then flows.<sup>2</sup>

**vegetation** means native plants including trees, shrubs, bushes, seedlings, saplings and reshoots.<sup>2</sup>

**watercourse**

1 *Watercourse* means a river, creek or stream in which water flows permanently or intermittently—

- (a) in a natural channel, whether artificially improved or not; or
  - (b) in an artificial channel that has changed the course of the watercourse;
- but, in any case, only—
- (c) unless a regulation under paragraph (d), (e) or (f) declares otherwise—at every place upstream of the point (**point A**) to which the high spring tide ordinarily flows and reflows, whether due to a natural cause or to an artificial barrier; or
  - (d) if a regulation has declared an upstream limit for the watercourse—the part of the river, creek or stream between the upstream limit and point A; or
  - (e) if a regulation has declared a downstream limit for the watercourse—the part of the river, creek or stream upstream of the limit; or
  - (f) if a regulation has declared an upstream and a downstream limit for the watercourse—the part of the river, creek or stream between the upstream and the downstream limits.

2. *Watercourse* includes the bed and banks and any other element of a river, creek or stream confining or containing water.<sup>2</sup>

---

<sup>1</sup> Definitions developed for the purpose of this Guideline

<sup>2</sup> Definitions provided by the *Water Act 2000* under Schedule 4