

Using environment protection licensing to control water pollution



The Environment Protection Authority uses complementary approaches to protect the waterways of New South Wales from the impacts of pollution. These include regulation, investigations, monitoring and reporting programs, and public education.

The EPA regulates discharges to water using conditions it places in the environment protection licences that are issued under the Protection of the Environment Operations Act 1997.

Why managing water quality is important

Good water quality is essential to human life and the health of the environment. A healthy waterway has water quality that enables the community's desired uses ('values') for the waterway to be met, such as for drinking, recreation, irrigation, industrial use, and protecting aquatic ecosystems. Healthy waterways support rich and varied aquatic organisms and protect public health.

Our water resources are of major environmental, social and economic value to NSW and where water quality becomes degraded the value of this resource may be lost.

Water quality is closely linked to the surrounding environment and land uses. Regulating water pollution through conditions in environment protection licences takes into account a number of factors, including the community's values for a waterway and their uses of it, how much the waterway has been modified and the practical measures available to ensure that pollution does not compromise these values and uses. This means the conditions on discharges to a waterway that is part of a sensitive aquatic environment are likely to be more stringent than the conditions that might be required for a waterway that is a working port.

Schedule 1 of the [Protection of the Environment Operations Act 1997](#) (POEO Act) contains a list of activities that are regulated by environment protection licences. As well as regulating discharges to waters from premises, licences also focus on air, noise, waste and land contamination issues.

The Environment Protection Authority (EPA) does not use licensing to regulate every potential pollutant that could be contained in a discharge such as:

- where an operator is reasonably able to carry out an activity in a way that avoids discharge of specific pollutants to water – for example, where water is reused in a process that avoids a discharge or runoff from an intensive agricultural activity by using an engineered runoff capture basin
- those pollutants with little or no potential to be present at levels that pose a reasonable risk of harm to health or the environment.

Aim of this fact sheet

The EPA is leading a number of initiatives to ensure that licence holders and the broader community understand how licences are used to regulate water discharges. This fact sheet aims to raise awareness about how the EPA makes its regulatory decisions and focuses its regulatory effort to manage potential impacts on the environment.

The fact sheet explains:

- the pollution of waters offence
- how licences regulate water discharges to minimise and manage environmental impacts on waters (and the environment more generally)
- the information needed by the EPA to make decisions on licences and the conditions they may contain
- why the EPA does not regulate all pollutants that could be discharged from a premises
- the responsibilities that licence holders have to –
 - meet the standard of environmental performance expected of them by complying with the requirements of their licence
 - ensure their licence provides an adequate defence against the pollution of waters offence, allowing the business to operate in accordance with the POEO Act
- the links between licensing and the environmental planning framework.

Pollution of waters offence

It is an offence under section 120 of the POEO Act to pollute waters. However sections 121 and 122 of the Act provide a defence against a prosecution under section 120 where the pollution was regulated by a licence or regulation which was complied with fully.

The definition of ‘water pollution’ in the POEO Act sets out general and specific circumstances that constitute pollution. At its broadest, this means a prohibition on placing anything in waters that changes their chemical, biological or physical nature.

How a licence is used to control water discharges

An environment protection licence provides a defence against the pollution of waters offence for those pollutants that are specifically regulated under the licence as long as the licence holder complies with all related requirements.

The EPA seeks to avoid and minimise harm caused by water pollution by attaching conditions to the licences it issues. These conditions may:

- restrict the amount of various pollutants that the licence holder can discharge to waters
- require the licence holder to monitor discharges to waters
- require the licence holder to report on their discharges to waters
- require the licence holder to ensure their pollution control equipment operates properly and efficiently

- require the licence holder to undertake a pollution reduction program to manage, investigate or address the discharges to waters.

Matters the EPA must consider in licensing functions

When exercising its licensing functions, the EPA is required to consider any of the matters in section 45 of the POEO Act that are relevant. These functions include:

- deciding whether a licence should be issued for a particular activity
- deciding on the conditions that should be placed on the licence to control impacts on the environment from that activity (such as water discharge limits)
- providing advice to a consent or determining authority to assist the environmental planning process for an activity that requires planning consent as well as a licence (see below).

The relevant considerations may include but are not necessarily limited to:

- the pollution that will be caused and its impact on the environment
- practical measures that can be taken to prevent, control, abate or mitigate the pollution and protect the environment from harm
- the environmental values of water affected by the proposed discharge
- practical measures that can be taken to restore or maintain those values.

The environmental values of a waterway are those that are relevant from the list of values set out in the [Australian and New Zealand Guidelines for Fresh and Marine Water Quality](#) (ANZECC & ARMICANZ 2002). These guidelines are also used as a benchmark to assess the likely impact of pollution and the controls that should be placed on that pollution. Other guidance material, such as [Environmental Guideline: Use of Effluent by Irrigation](#) (Office of Environment and Heritage 2004), is used to inform consideration of other wastewater management approaches.

Where a potential water pollution impact is identified after a licence has been granted (for example, where the nature of a discharge has changed or will change or the impacts are now better understood), the EPA can address this by varying the licence and attaching new or revised licence conditions. These could require the licence holder to:

- undertake pollution studies or pollution reduction programs to investigate the extent of the pollution and the impacts caused by the pollution (where this information is not available)
- determine possible measures that can be taken to mitigate the pollution
- implement additional requirements as needed.

After considering the above information and other relevant matters under section 45 of the POEO Act, the EPA will determine whether to regulate the discharges of pollutants to waters from the licensed activity and how.

If the licence holder complies with the licence, they will have a defence against prosecution for a breach of section 120 arising from any discharge that is regulated by the licence.

Understanding the range of pollutants being discharged

To understand the full range of pollutants contained in the discharge from their premises, a licence holder will generally need to characterise the discharge.

This could require:

- sampling and chemical analysis –
 - at each discharge point where the pollutants in the discharge may vary
 - sampling at different times where the pollutant types and concentrations in the discharge may vary with different operational activities at the premises
- an environmental audit of a premises to develop a profile of chemical pollutants or naturally occurring pollutants that may be in the discharge from the premises, including:
 - an inventory of the chemicals used at the premises
 - an assessment of the risks of water pollution based on the adequacy of storage, handling and management of the chemical pollutants at the premises
 - an assessment of whether the activity is increasing the rate of generation of naturally occurring pollutants compared with natural background levels
- comprehensive flow data on the discharge and receiving waters
- an understanding of the environmental values of the water affected by the discharge and the practical measures available to restore or maintain those values
- research to identify the range of pollutants commonly found in discharges from an industry type or similar premises.

A licence holder can also carry out a voluntary environmental audit of the premises to understand pollutants being discharged and this information cannot be used against a licence holder in a prosecution.

The EPA or a consultant can provide guidance about the likely pollutants or types of pollutants expected to be present in the discharge from a premises and methods to fully characterise those pollutants. As well as characterising the pollutants in a discharge, the licence holder should also identify and outline details of the water quality of the receiving waters.

Why some discharge pollutants are not regulated by environment protection licences

The EPA only specifies pollutants on a licence where their discharge in all practical terms is unavoidable and measures to control the pollutants and their impacts can be feasibly implemented.

In some cases where the individual chemical constituents of effluents are difficult to fully characterise or interactions between chemical constituents may occur, the EPA may include a condition to control the toxicity of the discharge.

The EPA has worked extensively with industry sectors and licence holders to characterise complex discharges from premises to ensure that licences:

- limit only those pollutants with potential environmental impacts, and
- do not impose undue costs by placing requirements on substances unlikely to cause an impact.

The EPA continues to work closely with licence holders in undertaking comprehensive risk assessments and monitoring programs to target the key pollutants requiring control.

Responsibilities of environment protection licence holders

It is the responsibility of licence holders to:

- be aware of the pollutants that are discharged to waters from their premises
- be aware of the environmental impacts that pollutants discharged from their premises have on the environment

- ensure that their licence specifically regulates the discharge from their premises of **all** those pollutants that pose a risk of non-trivial harm to human health or the environment – where the premises discharges a pollutant that is not regulated by the licence, the licence holder does not have a defence against the pollution of waters offence by that pollutant.

Licence holders are unlikely to be complying with their licence or the POEO Act if a discharge from their premises:

- does not comply with the concentration limits for each pollutant specified in condition L3.3 of the licence, or
- contains pollutants other than those specified in condition L3.3 of the licence and those pollutants are at levels that are not trivial – ‘trivial’ here relates to both the concentration of the pollutant as well as its risk to the environment.

Depending on the severity of their non-compliance, a licence holder may face one or more of the following regulatory responses from the EPA under the POEO Act:

- a penalty notice
- a prevention notice (see Part 4.3, POEO Act)
- a requirement to undertake a mandatory environmental audit (Part 6.2)
- a clean-up notice (Part 4.2)
- additional conditions on the licence, such as pollution reduction requirements
- prosecution for the relevant offences under the POEO Act.

Civil proceedings initiated by any person to remedy or restrain a breach of the POEO Act (sections 252 and 253) is also a possible response.

The [EPA Prosecution Guidelines](#) set out how the EPA decides what regulatory action to take, ensuring that all relevant matters are considered and the action is proportional to the offence (the EPA does not act on trivial matters).

Where a licence holder knows of non-trivial discharges of pollutants to water from their premises that are not regulated by their licence, they may wish to regulate the discharges by applying to vary the licence under section 58 of the POEO Act. If granted, the variation would ensure they have a defence against the offence of polluting waters for the discharges as long as they comply with all relevant requirements.

The variation application should include detailed characterisation of the relevant discharges and their impacts and the measures the licence holder has considered to manage the potential impacts. More information is available online in the [Guide to Licensing: Part A](#).

Where licence holders are considering a licence variation, they should contact the EPA before applying to discuss the requirements to support their application.

Connection to environmental planning processes

Under the environmental planning process, a consent authority weighs up the environmental, social and economic costs and benefits of a proposed development to decide if it should give its consent and place conditions on that consent to control possible impacts. A proponent provides a range of information when lodging an application for development consent or approval under the [Environmental Planning and Assessment Act 1979](#) and/or a licence under the POEO Act.

Where there is a discharge to waters this information typically includes:

- characterisation of any proposed discharges to waters in the environmental impact assessment
- assessment of the likely impacts of discharges on the waters and how these will be mitigated, particularly in regard to the uses of the waterway
- an indication of whether any of the proposed discharges should be regulated by the licence and, if so, which pollutants.

The onus is on the proponent to identify the pollution likely to be caused as the levels are often site-specific and the proponent should fully understand the nature of the discharges.

Where a development requires both planning consent and a licence, the EPA provides comment and input to the consent authority as part of the planning process. If a licence is then granted for that development, it must be consistent with the planning consent until at least the first time the licence is reviewed under section 78 of the POEO Act.

Further specific information on the regulation of water pollution can be found on the EPA's website, including:

- information on [water pollution and treatment](#), such as approved methods for the analysis and sampling of water pollutants
- [resources and tools](#) for water managers, local councils and catchment management authorities on assessing and protecting water quality
- information on [environment protection licences](#), including licence application forms.

A range of other general information on water quality, water pollution and regulation by the EPA can also be found by searching the EPA website at www.epa.nsw.gov.au.

Alternatively, contact the EPA's Environment Line on 131 555.

Photo front page: Hunter River at Morpeth/D Barnes DTIRIS

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