

## Environmental values and water quality objectives:

### Under the Environmental Protection (Water) Policy 2009

This fact sheet provides information on environmental values (EVs) and water quality objectives (WQOs) for waters under the Environmental Protection (Water) Policy 2009 (EPP Water).

Scheduling is the statutory process that incorporates EVs and WQOs for waters into Schedule 1 of the EPP Water, following Queensland Government approval. Processes leading to scheduled EV/WQOs involve consultation with local communities on waterway uses and values, and review of local water quality data.

The Department of Environment and Heritage Protection (the department) is responsible for administering the EPP Water, which is subordinate legislation under the *Environmental Protection Act 1994* (EP Act) and provides a framework for:

- identifying EVs and management goals (quantitative measures or narrative statements that may be used to assess whether EVs are maintained) for Queensland waters
- stating water quality guidelines and WQOs to enhance or protect the EVs
- providing a framework for making consistent, equitable and informed decisions about waters that promotes efficient use of resources and best practice environmental management
- involving the community through consultation and education.

### Compliance with national approaches

In accordance with the National Water Quality Management Strategy under the Council of Australian Governments Water Reform Agenda—state and territory governments have either enacted, or are enacting, legislative instruments or policies to protect EVs and set WQOs for waters.

### EVs

EVs for water are the qualities that make it suitable for supporting aquatic ecosystems and human water uses. These EVs need to be protected from the effects of habitat alteration, waste releases, contaminated run-off and changed flows to ensure healthy aquatic ecosystems and waterways that are safe for community use.

All tidal and non-tidal waters, including wetlands, lakes and groundwaters, have EVs. Aquatic ecosystem health is an environmental value of all Queensland waters.

The Australian and New Zealand Guidelines for Fresh and Estuarine Water Quality (ANZECC 2000) and the Queensland Water Quality Guidelines 2009 outline how aquatic ecosystems can be subdivided into different levels of protection, depending on condition—high ecological value systems; slightly disturbed systems; moderately disturbed systems; and highly disturbed systems.

Section 14 of the EPP Water states how waters in these different levels of protection should be managed. These matters must be considered when decisions are being made about the release of waste water into receiving waters.

### WQOs

WQOs are long-term goals for water quality management. They are measures, levels or narrative statements of particular indicators of water quality that protect EVs. They define what the water quality should be to protect the EVs—after consideration of the socio-economic assessment of protecting the water quality.

WQOs can be defined for a range of physical indicators (e.g. turbidity, suspended sediment and temperature), chemical indicators (e.g. phosphorus, nitrogen, biochemical oxygen demand and toxicants), biological indicators (e.g. macroinvertebrates and fish), pathogens, and measures of waterway condition—for example, riparian vegetation (extent and condition).

WQOs are derived from: site-specific scientific studies; the Queensland Water Quality Guidelines 2009; Water Quality Guidelines for the Great Barrier Reef Marine Park 2010; the Australian and New Zealand Guidelines for Fresh and Marine Waters 2000; and other documents published by a recognised entity. WQOs apply to receiving waters, i.e. rivers, estuaries, coastal waters, groundwaters, lakes and wetlands—they are not end-of-pipe or emission objectives.

## Scheduling EVs and WQOs

Scheduling is the statutory process that incorporates EVs and WQOs for waters into Schedule 1 of the EPP Water, following Queensland Government approval—reflecting local community views on waterway uses and values, and local water quality data (where sufficient data exists).

Once scheduled, EVs and WQOs:

- provide significant cost efficiencies to government, industry and other groups by establishing a single set of agreed water quality targets for statutory and non-statutory planning and water quality management
- support current and planned future investments by government, industry and the community, in built and natural environments
- meet the increasing public expectation that government will protect the state's waterways from pollution and minimise economic, social (including public health) and environmental risks associated with declines in water quality.

The WQOs for a water that is not in Schedule 1 are the set of water quality guidelines (e.g. the Queensland Water Quality Guidelines 2009 and the Australian and New Zealand Water Quality Guidelines for Fresh and Marine Water Quality 2000) for all indicators that will protect all EVs for the water. These default WQOs are generally defined at the regional level.

## Linkages to planning and development assessment

Figure 1 provides an overview of linkages between EVs/WQOs and planning/development assessment activities. Further details are outlined below for a selection of statutory and non-statutory categories of use.

### Statutory activities

#### Point source emissions—EP Act

Under the EP Act, certain activities with the potential to release contaminants into the environment are referred to as environmentally relevant activities (ERAs). These often involve a discharge or outflow from an identifiable location, such as a pipe (e.g. point source). ERAs fall into two main categories:

- prescribed ERAs: industrial or intensive agricultural activities that have potential environmental risks. Examples include chemical manufacturing, sewage treatment, cement manufacturing and poultry farming (refer Environmental Protection regulation schedule 2)
- resource activities (including mining and coal seam gas extraction).

The EP Act (standard criteria) and section 51 of the Environmental Protection Regulation 2008 establish requirements for the proponent and the administering authority to consider and assess impacts of ERAs on EVs/WQOs under the EPP Water. The following departmental guidelines (available from [www.ehp.qld.gov.au](http://www.ehp.qld.gov.au)) provide further details on assessing impacts on receiving waters:

- application requirements for activities with impacts to water
- technical guideline—Wastewater releases to Queensland waters.

Information on ERAs is also available from the Queensland Government Business and Industry Portal at [www.business.qld.gov.au](http://www.business.qld.gov.au).

Under the EP Act, the administering authority may also amend an environmental authority for a range of reasons, including the approval of an amendment of an environmental protection policy.

#### Urban diffuse emissions—*Sustainable Planning Act 2009*

The State Planning Policy (State interest—water quality) under the *Sustainable Planning Act 2009* (SP Act) seeks to ensure that that 'the environmental values and quality of Queensland waters are protected and enhanced'. Key elements of the SPP (State interest—water quality) include:

- integrating the State interest into planning schemes
- requiring that development for urban purposes (e.g. residential, commercial and industrial) is located, designed, constructed and/or managed in ways that avoid/minimise water quality impacts
- adopting applicable stormwater management design objectives relevant to the climatic region or demonstrating current best practice environmental management
- supporting local governments in developing innovative and locally appropriate solutions for urban stormwater management
- addressing impacts on EVs/WQOs in water supply catchments.

Further details are provided in the SPP and the supporting State Planning Policy Guideline: State interest—water quality, available at [www.dsdip.qld.gov.au](http://www.dsdip.qld.gov.au).

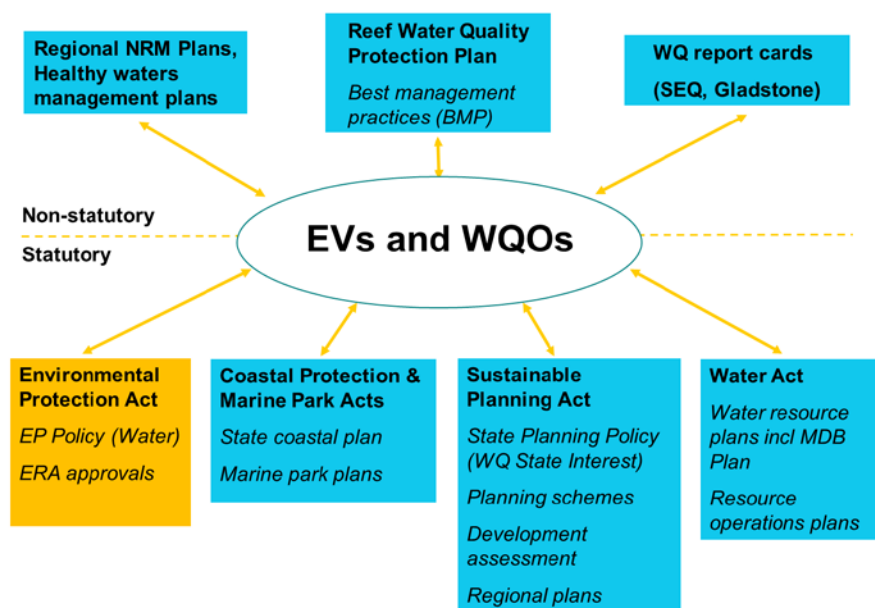


Figure 1 Links between EVs/WQOs and other statutory instruments in Queensland

## Non-statutory activities

### Rural activities—rural diffuse emissions

Best Management Practice (BMP) approaches for rural industry activities have been adopted as the key policy approach towards improved rural land management (including under the Reef Water Quality Protection Plan 2013).

BMPs provide important mechanisms to assist planning and decision-making towards the protection and enhancement of local EVs and WQOs under the EPP water. Examples of BMP codes include those for sugar cane and grazing activities. To encourage the development and adoption of BMP across reef catchment agriculture, the department is working with the industry organisation CANEGROWERS and grazing industry partners AgForce, Fitzroy Basin Association and the Department of Agriculture, Fisheries and Forestry to deliver BMP programs. Cane and grazing BMP modules are now being rolled out following extensive review by industry technical working groups and the Reef Plan's Independent Science Panel.

The BMP modules cover a wide range of farm management and production issues, with soil health, grazing land management and use of fertilisers and chemicals directly relevant to reef water quality improvement. Producers undertaking BMPs will be supported through extension and education programs.

### Other non-statutory activities

EVs and WQOs under the EPP Water support non-statutory natural resource planning activities including:

- regional natural resource management plans
- healthy waters management plans. These plans will assist in guiding and prioritising investment in natural resource management to protect EVs and WQOs
- water quality monitoring and aquatic ecosystem report card programs (e.g. by providing a benchmark against which water quality health can be compared)
- Reef Water Quality Protection Plan 2013 commitments to set regional and subregional water quality and management action targets.

## Further information

EVs and WQOs scheduled under the EPP Water are available on the department's website at [www.ehp.qld.gov.au](http://www.ehp.qld.gov.au). For more information, email [evinfo@ehp.qld.gov.au](mailto:evinfo@ehp.qld.gov.au)