

Environmental Regulation Framework for the Peel-Harvey Catchment

Discussion Paper – Working Draft

Regional Operations Division
Kwinana-Peel Region
Department of Environment

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in consultation with: Peel Harvey Catchment Council

Background

Currently the Kwinana-Peel Region of the Department of Environment (the Department) manages approximately 40 industry licenses, 10 works approvals and a number of registered premises within *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992* area. These 'prescribed premises' are managed under *Section 54 and 56* of the *Environmental Protection Act 1986 (the Act)*. It is expected that this number will continue to increase, as state development growth remains strong. The role of the professional environmental officer within the region is to assess new proposals, manage and make changes to current licences, monitor compliance inspections, respond to complaints, direct activity consistent with resource capacity, advocate change and ensure international and national best practice is observed in Western Australia. The hierarchy of licensed and registered premises reflects the inventory of significant emissions and discharges on behalf of the state.

The Kwinana-Peel Region has a strong focus on prescribed premises within the *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992* area that discharge or have the potential to discharge nutrients to the environment. This strong focus is aimed at minimising the impact of these industries and ensuring that change is advocated to ensure industries work towards achieving international and national best practice. The purpose of this framework is therefore mainly aimed at outlining the approach the Department will take in regards to regulating these industries in the region.

The statutory authority of the state to manage the industry regulation on behalf of the community is enabled by the specific and general provisions of *the Act* and *Environmental Protection Regulations 1987 (the Regulations)*. To apply this authority the Department has a clear inspectorate and enforcement role and applies a broad range of discretionary and sequential staged enforcement measures. This ranges from written warnings and infringement notices through to prosecution in the criminal court.

Penalties for breach of requirements reflect the seriousness and high regard that the community place upon our environmental values. For example criminal penalties for breach of licence / works approval conditions are classed as Tier 2 offences with a \$125,000 penalty for body corporate or \$62,500 fine for an individual. The penalty is supplemented by daily penalties of \$25,000 and \$12,500 respectively. Additional to any court sanction, Boards of Management, consumers and the international market place exert an additional toll for non-compliance. Criminal conviction for pollution offences and environmental harm offences may result in significant market restriction internationally.

The important developmental role industry plays in the state is acknowledged as is the community expectation that decision making considers environmental, economic and socially sustainable development. An open and transparent decision making approach to ensure accountable and equitable governance will support real commitment to continuous improvement and will not tolerate deliberate disregard for environmental compliance.

It must also be acknowledged that the overall level of management of environmental protection in Western Australia has showed sustained improvement over the years through the efforts of officers of the Department, commitment of industry and involvement of communities.

Current situation

In 2003 reviews of the Department by Welker (Licensing), Robinson (Enforcement) and Carew- Hopkins (Organisational management) highlighted a number of areas requiring change.

Key reforms identified structural changes to licensing assessment and condition setting, improved consistency, greater stakeholder involvement and improved and demonstrated enforceability of licences and *the Act* generally.

When looking at these reviews and the recommendations, the Welker Report has the greatest potential to influence current management of nutrient discharging industries. One of the key recommendations of the Welker Report identified that “(R56) *The current prescribed premises schedule should be reviewed to reduce the number of prescribed premise to those that pose substantial ongoing environmental risk and determine where other mechanisms under the Act should be used to protect the environment.*”

However, advice to date indicates that the ‘*other mechanisms under the Act should be used to protect the environment*’ mentioned by Welker (Sections 49, 65 and 71) require pollution to have been caused or pollution is likely to be caused. This places the burden of proof with the Department to prove an impact from a discharge has resulted in or is likely to result in pollution as defined in *the Act*.

Point sources that discharge nutrients into the environment are part of a cumulative impact on water quality and this would make demonstrating pollution, as defined under *the Act*, unlikely to be satisfied.

At this stage in the evolution of industry licensing, it is considered unlikely that these ‘*other mechanisms*’ under *the Act* can adequately manage these premises in the Region and therefore the current licensing function is viewed as the most effective way to manage licenced premises.

The Kwinana-Peel Region would recommended against the removal or amendment to the *Environmental Protection Regulations 1987* that allow the removal of or an increase in the Production or Design capacity of the following Categories within Schedule 1:

- 1 and 68: Cattle Feedlots;
- 2 and 69 Intensive Piggeries;
- 55 Livestock saleyards or holding pen;

without prior drafting and implementation of appropriate Regulations that could still adequately manage emissions.

Principles and Goals of Regulation

Principles for Western Australia

Under the overarching principles of Ecologically Sustainable Development, the Western Australian Government has identified the foundation and process principles as follows:

Foundation Principles

- **Bio-diversity and ecological integrity**
- **Community, regions, “sense of place” and heritage**
- **Equity and human rights**
- **Long-term economic health**
- **Settlement efficiency and quality of life**
- **Net benefit from development**
- **Common good from planning (reduce ecological footprint)**

Process Principles

- **Integration of the *triple bottom line***
- **Precaution**
- **Accountability, transparency and engagement**
- **Hope, vision, symbolic and interactive change**

Objective and Principles for Environmental Regulation

The key objectives for environmental Regulation is to prevent, control and abate pollution or environmental harm and thereby protect the environment by applying the following principles (adapted from *E.P. Act 1986* as amended):

Key Principles

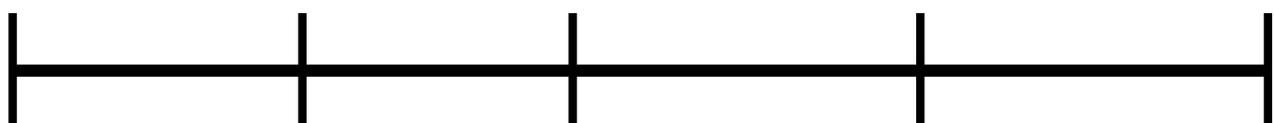
- Precautionary approach;
- Intergenerational equity;
- Conservation of biological diversity and ecological integrity;
- Improved valuation, pricing and incentive mechanisms (i.e. environment included in valuation, polluter pays, user pays for life cycle and cost effectiveness);
- Waste minimisation; and
- Continued improvement.

Goals for Licensing and Environmental Approach

The goals for licensing and regulations include:

1. Ensure that decision-making is ethical, accountable, open and transparent;
2. Work in partnership with the community, industry and stakeholders to achieve the common vision of preserving and enhancing our environment;
3. Adopt a pro-active approach to protecting the environment alongside a staged approach to regulatory control;
4. Encourage and promote best practice and stewardship;
5. Actively seek and strive continuous improvement through adopting a quality assurance approach;
6. Adhere to international, nationwide and state-wide standards in setting targets and limits on emissions;
7. Facilitate effective and consistent service delivery at regional offices with the support of a central unit;
8. Adopt the nationwide and state-wide goals and principles;
9. Apply a risk-based, outcomes focussed approach; and
10. continued improvement aimed at zero net export of nutrients from prescribed premises.

Natural Resource Management Toolbox



Information

Education

Voluntary Compliance

Regulation

Enforcement

This document is focused on the regulations and enforcement sections of the NRMO toolbox, which is also a staged approach to regulations

Existing Environmental Protection Act and Regulations

The *Environmental Protection Act 1986 and Regulations* is the key tool that can be used to manage or deal with any premises that operates in the *Environmental Protection (Peel Inlet-Harvey Estuary) Policy 1992* area. The Department can and will take action when there is a

breach of *the Act or Regulations* that is in line with its *Enforcement and Prosecution Guidelines: November 2004*. Such enforcement actions can include from written warnings, infringement through to prosecution in the criminal court. Following the Robinson report recommendations, enforcement actions for non-compliance is no longer viewed as a 'last resort'.

Section 49 - Causing pollution and unreasonable emission

This section of *the Act* means that a person causing pollution commits an offence. When the elements of pollution are considered the discharge has to be proven as causing a direct or indirect alteration of the environment to its detriment or degradation or to the detriment of any beneficial use. When considering point sources it would be difficult to demonstrate that a single discharge from a point source has resulted in pollution. This is because the nature of nutrient enrichment of water resources is the result of numerous contributing factors including agricultural and urban inputs. With regards to the beneficial use, nutrient enrichment of groundwater beneath a site is unlikely to be demonstrated as reducing an agricultural beneficial use and would be unlikely to satisfy the definition of pollution.

Section 65 – Environmental Protection Notice

The Chief Executive Officer (CEO) can issue an Environmental Protection Notice (EPN) under section S65 of the EP Act if on reasonable grounds, it is expected that pollution has been caused or is likely to be caused. Once grounds have been established, an EPN may require a person to:

- (a) investigated the extent and nature;
- (b) prepare and implements a plan for the prevention, control or abatement; or
- (c) take such other measures as the CEO considers necessary.

As with the previous Section 49 explanation, it would be required to prove pollution has been caused or is likely to be caused. This therefore has the same level of scrutiny and burden of proof as section 49 and would be difficult to demonstrate a single source is responsible for pollution as defined under the Act for a nutrient discharge.

Although general discharges from agricultural would be difficult to manage under the above two sections of *the Act*, if a discharge did occur that was of a magnitude that resulted in pollution this would be investigated and dealt with in line with the *Enforcement and Prosecution Guidelines: November 2004*.

S56 – Occupiers of Prescribed premises to be licensed in respect of discharges of waste

Sections 56 of *the Act* refers to *Schedule 1 of the Environmental Protection Regulations 1987* which lists the type of activities that determine if a premises is prescribed for the purpose of requiring a licence. These premises are subject to environmental licence conditions, which are designed to protect the environment.

The Kwinana-Peel Region of the Department is committed to requiring a program of continued improvement towards zero discharge from all licenced agricultural point sources currently discharging nutrient to the Peel-Harvey Catchment. This is to be achieved through licence conditions including requirements for Environmental Improvement Plans.

Monitoring conditions currently exist under licence for the purpose of monitoring point sources and taking pro-active steps if unacceptable nutrient discharges are reported. This monitoring currently exist on watercourses that transverse a premise, around a discharge point(s), around

evaporation/containment basins and at the boundary of a premise. This is an important initiative that has been implemented over the past two years and must continue to ensure accurate and reliable data on ground and surface water is available to make informed decisions.

The premises focused on under this framework have limits for phosphorus discharge from the property currently set at 1kg/hectare/year. These discharge limits will require review upon completion of the Coastal Catchments Initiative Decision Support Model project and the Water Quality Improvement Plan to ensure that they are consistent with water quality objectives at the catchment and sub-catchment level that are currently being developed. The discharge limit also needs review to determine how it can be accurately enforced and audited when considering discharges from a property via groundwater. Consideration also needs to be directed to calculating and setting appropriate limits for nitrogen discharge. With the Peel-Harvey becoming more saline, post Dawesville Cut, the potential for nitrogen become a limiting factor for algal blooms and other nutrient related water quality issues should be more seriously considered.

Regular soil testing of pastures and crops that have nutrient rich wastewater irrigation in place should also be reviewed and considered for potential inclusion into the licence conditions. This has been demonstrated, when developing the proposed Nutrient Irrigation Regulations (next section), as an important requirement for determining the acceptability of proposals and suitability of land to sustainably receive nutrient rich wastewater.

With both nitrogen and phosphorus limits difficult to audit via monitoring of bores and watercourses, farm gate balances currently used in some parts of Europe to determine loss from a property may be an option that is further explored.

New licences and works approvals that are currently being assessed or expansions to existing facilities are required to design and operate zero discharge facilities. With existing facilities working towards a zero discharge site, it is important that new facilities not only demonstrate zero discharge is an achievable goal, but that the Department is committed to applying the same standards across the industry.

The final part of the framework is the need to better manage existing nutrient point sources, such as, feedlots and export facilities. For example, consideration needs to be given to limiting intensive livestock industries to hardstanded areas, so as to better manage waste products. This would be required of all facility on the coastal plain and would be consistent with the recommendations from the Department of Agriculture's 'Targeted assistance to intensive agricultural activities in the Peel-Harvey Coastal plain Catchment: Stages 10 Report'.

New and Proposed Regulations

Environmental Protection (Unauthorised Discharge) Regulations 2004

The DoE drafted *Environmental Protection (Unauthorised Discharge) Regulations 2004 (UDR's)* which have now passed through Parliament and have been gazetted. These regulations make it an offence to discharge certain materials into the environment. The materials prohibited are identified in *schedule 1* of the *UDR's*. The materials that are now covered under the *UDR's* that are relevant to this framework are animal wastes, animal oils and food waste. The *UDR's* do not include discharges of waste that the DoE currently licences through the *Environmental Protection Act 1986* and associated *Environmental Protection Regulations 1987*.

Previously the DoE had no regulations or achievable way to control any business or commercial activities (such as dairy sheds) that were not considered a prescribed premise under the *Environmental Protection Regulations*. The *UDR's* provides the ability to target poor environmental performers and premises that are not currently operating at best practice with regards to discharges to the environment. This is especially significant in the Peel-Harvey when nutrients are being discharged and entering the catchments tributaries and estuary.

Preliminary consultation involving the DoE, Department of Agriculture and dairy milk managers has been conducted. The result of these initial meetings was in principle support and the use of environmental improvement plans and management plans to encourage upgrading of the poor performing facilities as a first step/warning before further enforcing a continued breach of the unauthorised discharge of animal waste from those premises.

It is expected that the introduction of the *UDR's* will spur the industry to re-use the wastewater in a manner that is more sustainable than disposing of the waste straight into the agricultural drains.

The Department will be considering using this regulation in unison with the proposed wastewater irrigation regulations.

Proposed Environmental Protection (Wastewater Irrigation) Regulations

The Kwinana-Peel Region and the Licensing Policy Unit is currently working to draft Regulations to manage nutrient-rich wastewater application to land. These proposed regulations would be designed to ensure that application of nutrient rich effluent is only applied to land when it can be demonstrated to be sustainable and that no leaching below root zone would occur. The proposed regulations will be designed to cover the current existing gap between the *UDR's* and the *Environmental Protection Regulations 1987(Schedule 1: Prescribed Premises List)*.

The introduction of the proposed regulations is expected to provide improved levels of environmental protection through the provision of clear guidance for commercial operators that discharge waste. The proposed regulations should ensure the principle of waste minimisation and the goal of no net export of nutrients off-site is met providing a 'level playing field' for all wastewater application schemes. This is important because currently inequity exists with situations like a feedlot holding cattle for beef being licenced while the Department does not currently regulate a dairy. Compliance with the proposed regulations should ensure that nutrient loads are applied at a level that are sustainable.

Staged Approach for Implementing Regulations

The Department proposes to use the new and proposed Regulations above in a clear staged approach that gives the owner/operator of a premises time to voluntarily comply with the regulations before steps towards enforcement are taken. The two sets of regulations are proposed to cover all the situations that have the potential to cause nutrient enrichment of ground or surface waters.

Discussion and consideration regarding the threshold or cut off point to which these regulations will apply to is still on-going. Preliminary thoughts include an arbitrary cut off number of animal numbers or volume of wastewater that is based on risk or a catch-all clause which enables the Department to use discretion with any discharge of high nutrient wastewater being able to be regulated. The latter will allow the Department to target both premises that are above a certain threshold and those just below the threshold where performance may be poor or

the premises may be located in a sensitive locations that have a potential to impact the environment but would otherwise avoid regulation.

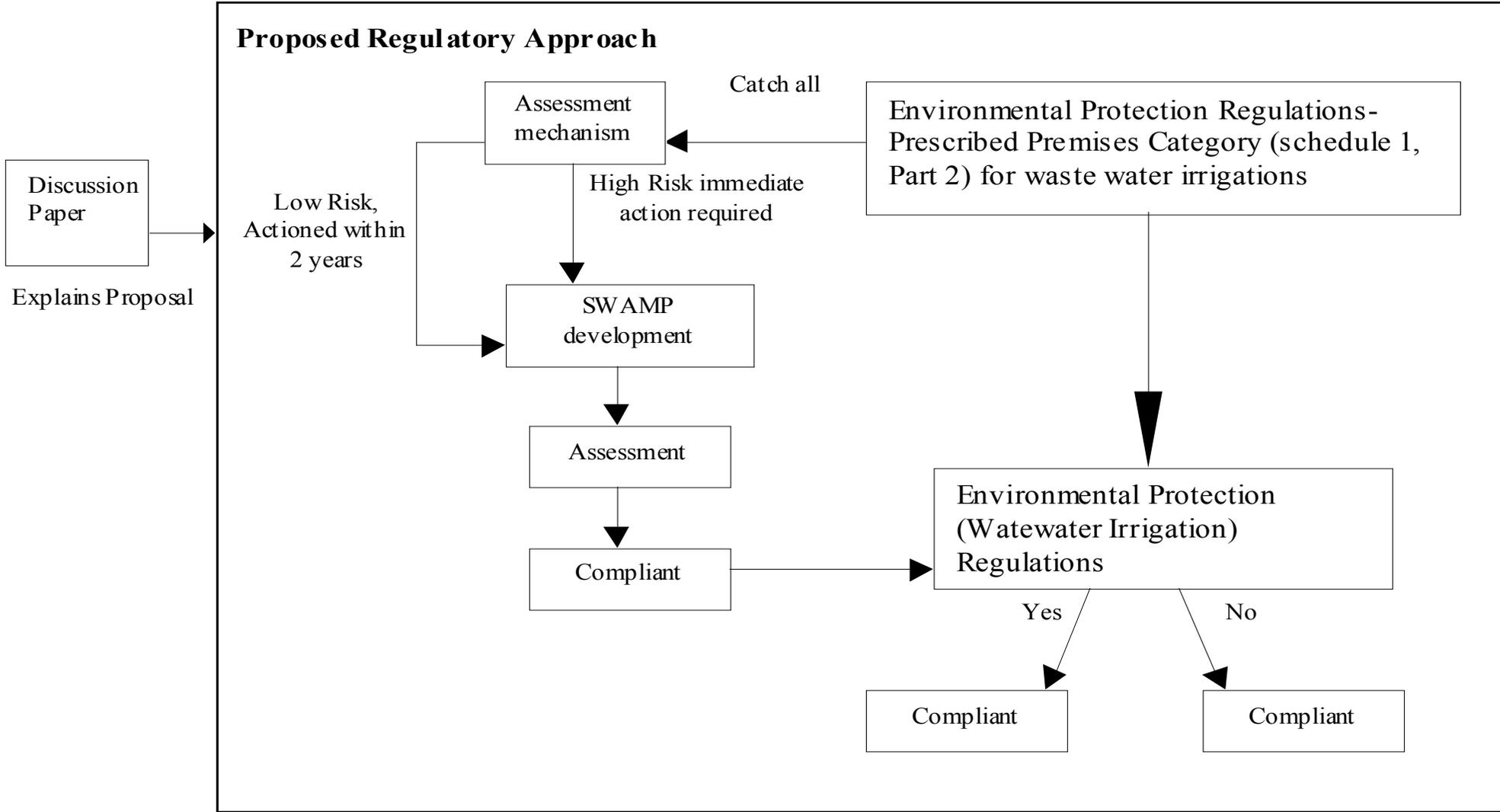
Currently it is considered best practice to irrigate unwanted nutrient enriched wastewater over pastures or crops as an alternative or to reduce the volume of inorganic fertilisers. This would therefore not be targeted by the *UDR's* because of the benefits that would result from the reduction in use of inorganic fertilisers and that it could be adequately managed under the proposed wastewater irrigation regulations. The *UDR's* will be focusing on industry that discharge to a drain, river, stream, infiltration ponds or to land without a licence or other relevant approvals. Those who do breach the *UDR's* will be given a warning and timeframe to implement a voluntary Environmental Improvement Plan (EIP). The voluntary EIP will have milestones and for achieving compliance before a return inspection to audit operations is completed.

If compliance is not achieved by the agreed timeframe an extension to the time may be granted or the staged approach to regulation will start with infringements notices and then enforcement action will be considered. If compliance is achieved industry will be irrigating the wastewater on-site and then this will be covered by the proposed wastewater irrigation regulations (see attached flow diagrams) or the wastes will be fully contained.

The proposed wastewater irrigation regulations will work in a very similar way. Those who irrigate wastewater and are captured by the proposed regulations will be required to submit a Site Water Application Management Plan (SWAMP). The SWAMP process will include the use of the WASTELOAD Model that is a computer program that has been developed for Western Australian conditions to determine the acceptability of applications of nutrients to pasture and crops. If WASTELOAD can not be used other justification that the nutrient rich wastewater discharged via irrigation is done so in a sustainable manner will be required. If it is demonstrated that the discharge is unsustainable then the option will be given to implement a voluntary EIP. The EIP will have milestones and for achieving compliance before a return inspection to audit operations is completed.

If compliance is not achieved by the agreed timeframe an extension to the time may be granted or the staged approach to regulation, starting with infringements notices and then enforcement action will be considered. If compliance is achieved the sustainable discharge will be monitored and follow-up compliance inspections can be conducted over time to insure this continues (see-attached flow diagrams).

Proposed Environmental Protection (Wastewater irrigation) Regulations



SWAMP – means a site water application management plan.

Environmental Protection (Unauthorised Discharge) Regulation 2003

Proposed Regulatory Approach for non-prescribed premises

Premises Discharging Animal Waste are Required to comply with:

