

Parliamentary Inquiry into Unconventional Gas in Victoria

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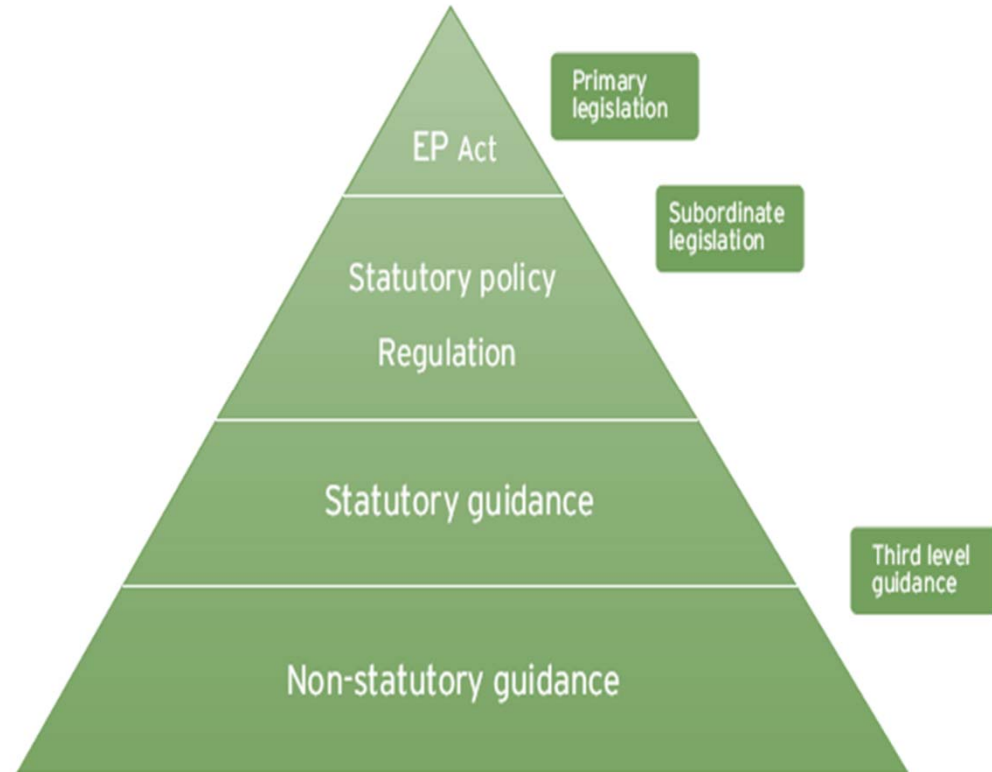


Overview

- EPA's Role and Framework
- EPA's Submission Summary
 - Regulatory Role
 - Knowledge Gaps
 - Environmental Risks
 - Best Practice Regulatory Approach
- Other Frameworks
 - NSW
 - Queensland
 - South Australia
 - Western Australia

Environment Protection Framework

- Under the *Environment Protection Act 1970*, EPA is:
 - Independent authority to make regulatory decisions
 - With broad range of powers, duties and functions.
- Statutory Environment and Waste Management Policies.
- EPA's focus is to regulate pollution.



State Environment Protection Policies

- For Unconventional Gas the key policies are air, water and groundwater.
- Policies identify the beneficial uses of the environment to be protected, and the standards that apply.
- Policies require best practice environmental management.

EPA's Submission & Inquiry Terms of Reference

2. The environmental ... and public health risks, risk mitigations and residual risks of onshore unconventional gas activities;
5. The ... policy and regulatory safeguards that would be necessary to enable exploration and development of onshore unconventional gas resources, including —
 - (a) further scientific work to inform the effective regulation of an onshore unconventional gas industry, including the role of industry and government, particularly in relation to rigorous monitoring and enforcement, and the effectiveness of impact mitigation responses; and
 - (b) performance standards for managing environmental and health risks, including water quality, air quality, chemical use, waste disposal, land contamination...;
6. Relevant domestic and international reviews and inquiries covering the management of risks for similar industries

Key Points from EPA's Submission

- The decision whether to enable the development of the industry rests with the Victorian State Government.
- If a sustainable industry is to be developed, it must balance environmental, economic and social values and ensure that environment risks associated with unconventional gas are well understood and managed in the short, medium and longer term.
- If the State Government decides to consider permitting these activities, EPA's view is that the industry should be managed through:
 - Early consultation with the community;
 - Development of further scientific knowledge at a local scale;
 - Application of best practice engineering standards; and
 - Strengthening and better integrating the regulatory framework.

Regulatory Approvals Role

- Environment Protection (Scheduled Premises and Exemptions) Regulations 2007, Schedule 1

Type	Does an exemption from Works Approval or Licensing apply?
C: Mining C01 (Extractive Industry and Mining)	Premises, with solely land discharges or deposits, used only for the discharge or deposit of mining wastes and that are in accordance with the Extractive Industries Development Act 1995 or the Mineral Resources (Sustainable Development) Act 1990 are exempt from works approval under section 19A and licensing under section 20(1) of the Act

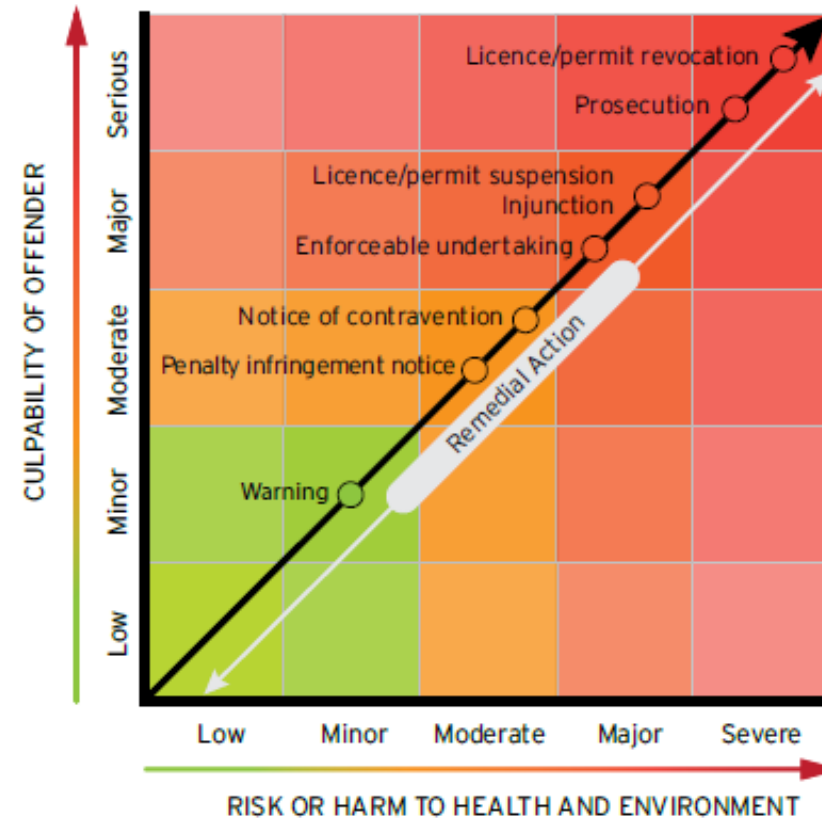
Regulatory Compliance Role

- Earth Resources Regulation (ERR) is responsible for environmental performance on-site and preventing offsite impacts.
- Under the provisions of the State Environment Protection Policies, ERR are “the relevant protection agency” with responsibility to ensure that any work plans and operations plans are consistent with SEPPs and their standards.
- EPA can issue notices requiring assessment, control or remediation of environmental impacts.
- Notices can be applied post closure.

Operating Model & Compliance Policy



EPA's enforcement response



Knowledge Gaps

- Knowledge gaps that EPA Victoria has identified include:
 - Current natural pathways for fugitive air emissions;
 - Current levels of aquifer interconnectivity in areas of gas prospect;
 - Regional groundwater and surface water quality in the context of seasonal variation;
 - Suitability of hydraulic fracturing for coal seam gas in target brown coal and black coal deposits;
 - Suitability of existing aquifers to support water reinjection.

Environmental Risks

- EPA considers the following areas require further attention:
 - Hydraulic fracturing and water management during exploration;
 - Air quality, hydraulic fracturing, water management, reinjection and land contamination risks during production; and
 - Air quality, groundwater quality and land contamination risks during post-closure.

Best Practice Regulatory Approach

- Clear roles and responsibilities: Integrating life cycle stages, environment and community.
- Risk-based, industry-wide and cumulative impacts approach.
- Design for post-closure: Set clear standards at the beginning.
- Operations as first step of site rehabilitation: Clear and transparent compliance and enforcement.
- Independent verification, increased governance.

Overview of Other Frameworks in Australia



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New South Wales Framework

- Department of Industries (Division of Resources and Energy) issue rights to explore and grant approval for exploration.
- Department of Planning and Environment assess and grant approval for production.
- EPA NSW issues Environment Protection licenses that provide conditions on any approvals.
- EPA NSW undertake compliance and enforcement on all approvals, excluding work place health and safety.

Queensland Framework

- Department of Natural Resources and Mines (DNRM) manages “rights”, hosts specialised Coal Seam Gas compliance unit and have a focus on groundwater resources use and exploration.
- The Department of Environment and Heritage Protection (DEHP) manages environmental impact assessments, issues Environmental Authorities, and water permits.
- Environmental Authorities require risk assessment, notification and disclosure of hydraulic fracturing prior to any activity.
- Codes of practice for bores and hydraulic fracturing.
- Joint compliance approach between DEHP and DNRM with annual compliance plans and results published.

South Australia Framework

- Department of State Development (DSD) as the lead government regulator, setting environmental objectives for proponents through the environmental impacts process.
- Department of Environment, Water and Natural Resources manages water resources. They provide advice to DSD on setting environmental objectives, risk mitigation and operational strategies.
- The SA EPA provides advice to DSD in setting of objectives and assessment of environmental impacts. The SA EPA is listed as a mandatory referral agency and a licence from the SA EPA may be required.
- If hydraulic fracturing is proposed, a public consultation process is required to demonstrate how all potential risks to social, natural and economic environments can be managed to meet community expectations.

Western Australia Framework

- The Department of Mines and Petroleum (DMP) is responsible for regulating petroleum activities. DMP assesses Environment Plans submitted by proponents and publishes summaries.
- DMP has recently updated its regulations. DMP manages compliance.
- Require public disclosure and risk assessment of chemicals used 'downhole'.
- WA EPA's main role is to assess proposals with potential for significant environmental impacts. Proposals may be referred to the WA EPA.
- Department of Environment Regulation (DER) issues works approvals and licenses for discharges. DER manages compliance with them.
- Department of Water regulates the taking of water, the construction of water bores and water allocations to manage water resources.

EPA Inquiry

- Ministerial Advisory Committee appointed by the Minister for Environment, Water and Climate Change, the Hon. Lisa Neville, MP. Started 1 June 2015.
- Its Terms of Reference include " *the scope and adequacy of the EPA's statutory powers, and the effectiveness and efficiency of the suite of tools available to and utilised by the EPA, in enabling protection of the Victorian community and the environment, particularly in light of recent, new and emerging risks and issues.*"

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SEPP Waters of Victoria

- Sets out the beneficial uses of water, including public health and ecosystem protection.
- Sets environmental quality objectives depending on location, beneficial uses to be protected and background water quality
- Agencies, business and community to implement policy.
- Where a discharge can not be avoided, re-used, or recycled applicants for works approvals need to incorporate treatment measures that ensure discharges will not pose a risk to beneficial uses, including the use of best practice.

SEPP Groundwaters of Victoria

- Goal: to maintain and where possible improve groundwater quality
- Principle of protecting groundwater is fundamental to the protection of surface waters and ecological function.
- Groundwater quality needs to be maintained as close as practicable to background.
- Protect groundwater to the greatest extent practicable from serious or irreversible damage.
- The principles of intergenerational equity and precautionary approach apply.
- Government agencies must implement the groundwater policy and planning authorities must ensure that planning schemes and permits are consistent with it.

SEPP Air Quality Management

- Drives continuous improvement in air quality and achieves the cleanest air possible having regard to the social and economic development of Victoria.
- Defines beneficial uses to be protected.
- Sets design criteria and objectives for air pollutants.
- Generators of emissions must manage their activities and emissions in accordance with the policy, pursue continuous improvement, apply best practice and if they emit Class 3 indicators, reduce those emissions to the maximum extent achievable.
- Undertake air quality modelling, risk assessment and monitoring.