

# ENVIRONMENTAL AND PLANNING LAW JOURNAL

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## ARTICLES

### **Economic valuation of the environment** – *The Hon Justice Brian J Preston*

Economics provides tools to value the environment and impacts to it. The environment produces goods and services that contribute to the wellbeing and utility of humans. Human actions that adversely impact on the environment change the flow of goods and services and utility of humans. Economic valuation of the environment is concerned to identify, quantify and monetise these changes. This article will introduce the concepts of economic valuation of the environment and their application to the law. .... 301

### **The operation of the precautionary principle in Australian environmental law: An examination of the Western Australian White shark drum line program** – *Katie Woolaston and Evan Hamman*

The precautionary principle is well known to environmental and public health scholars throughout the world. For over two decades it has been subjected to rigorous analysis by academic and judicial commentary. However, what it means to see the principle applied in practice remains elusive and case-specific. In this article the authors aim to further the literature by examining the principle in the context of the Western Australian government's controversial shark hazard mitigation program. The case study appears to show a disconnect between the existence of legal principles and their operation in environmental law. The deliberate culling of an endangered species to protect human health provides an interesting backdrop against which to enliven discussion about how principles of law, like the precautionary principle, can be better translated into legal regimes, so that they are more consistently applied by decision-makers. .... 327

### **Can “risk-based” regulation help increase public confidence in the Environment Protection Authority? An evaluation of New South Wales environmental licensing reforms** – *Matthew Roach*

One of the key challenges for the New South Wales Environment Protection Authority (EPA) is communicating with and maintaining the confidence of the public in its regulatory activities. On 1 July 2015 the EPA will introduce “risk-based” licensing for all environment protection holders under the *Protection of the Environment Operations Act 1997* (NSW). While the reforms should bring various benefits, risk-based licensing is not a particularly useful tool to validate the EPA's regulatory approach in the eyes of the public. The EPA and the public consider fundamentally different factors in assessing risk, and consequently their conclusions about how risk should be managed often do not align. The New South Wales EPA will need to look beyond a risk-based rationale in guiding and communicating its regulatory approach, and use its judgment to determine how best to respond to changing circumstances and community attitudes. .... 346

**The pernicious problem of “pointy” pollution: An assessment of the international and Australian legal regimes for controlling point-source, land-based marine pollution – *Tristan Orgill***

The international legal regime regulating vessel-source marine pollution has been “widely judged to be successful”. Conversely, despite the fact that 80% of marine pollutants are discharged from land-based sources, the non-binding international regime for controlling land-based marine pollution remains an ineffectual, toothless tiger. This article assesses the latter international regime to show both how and why it has failed to address the global scourge of point-source, land-based marine pollution (PSLBMP). The article examines why, conversely, and despite some significant flaws, the New South Wales PSLBMP regime has been effective at managing PSLBMP. It is argued that reform of the international PSLBMP regime should be predicated upon the careful evaluation of the strengths and weaknesses of successful domestic legal responses to PSLBMP, such as the New South Wales regime. .... 361

**Opportunities and obligations for residential developers to undertake wastewater recycling and stormwater capture: A Western Australian perspective – *Meluka Bancroft and Alex Gardner***

This article explores the potential for legal measures in Western Australia to facilitate opportunities and impose obligations on land developers to design and construct large-scale residential developments with a capacity for wastewater recycling and stormwater capture. The development of these alternatives sources of water presents one sustainable long-term option for significantly reducing potable water use in residential communities where potable water has, historically, been used for all water consumption purposes, including irrigation of private gardens and public open space. The reduction in expensive potable water use could be achieved by ensuring that all residential effluent (used potable water) is recycled for non-potable use within the development areas, and that stormwater run-off is captured for irrigation of parks and open space and natural recharge of the underlying superficial aquifer. This article reviews three current developments that utilise wastewater recycling and stormwater capture principles to examine the extent to which Western Australia’s existing legal framework achieves these outcomes. In particular, it analyses the provisions of the *Planning and Development Act 2005* (WA), and the rights to access alternative water sources and to distribute them for consumptive uses. Finally, the article suggests reforms to mandate and facilitate the inclusion of wastewater recycling and stormwater capture systems in all new residential developments. .... 372