Enforcing Environmental Regulation

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Abstract

For environmental legislation to ‘work’ it must not only be well designed but also efficiently and effectively enforced. Strategies must be developed as to how inspectors should go about the task of intervening in the affairs of regulated organisations to ensure compliance and enforcement—a question regarding which there is little consensus. This article examines this question from a number of angles: descriptive; analytical; and normative. It explores the practices of a representative sample of environmental regulators, identifying a number of distinctive intervention strategies (which are only limitedly shaped by existing theoretical models). It goes on to examine the strengths and weaknesses of each strategy and to consider how best to balance the sometimes competing criteria of effectiveness, efficiency and legitimacy. Finally, it considers how resource allocation and intervention strategies can best be integrated, whether there is a single ‘best practice’ strategy, and if not, what sorts of hybrids might be developed.

Keywords: compliance, best practice, enforcement, environment, inspection, regulation

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1. Introduction

For legislation to ‘work’ it must not only be well designed but also effectively implemented and enforced.¹ For the regulator, the latter involves two main tasks. First there is the question of where it is best to allocate resources and which sectors and organisations to target for inspection—often viewed in terms of ‘how to get the biggest bang for the regulatory buck’. Second, strategies must be developed as to how inspectors should go about the task of intervening in the affairs of regulated organisations. Should they for example, seek stringent enforcement or negotiate outcomes through advice and persuasion? In short, the two main challenges for regulators are determining where to intervene and how to intervene in the affairs of regulated organisations.

As regards the first of these challenges there is now something approaching consensus that the best way to allocate scarce regulatory resources is through risk-based regulation. This involves ‘the development of decision-making frameworks and procedures to prioritise regulatory activities and deploy resources, principally relating to inspection and enforcement, based on an assessment of the risks that regulated organisations pose to the regulator’s objectives’.² In the UK, risk-based regulation was endorsed by the Hampton Review³ and subsequently encapsulated in a statutory code of practice.⁴ However, this approach is by no means confined to the UK and an increasing number of OECD countries are seeking to develop coherent frameworks for the governance of risk in regulatory policy.⁵ Risk-based regulation has limitations as well as strengths, including the sophistication of the risk assessment process and the quality of information available on which to base it.⁶ Nonetheless, most regulators and policy makers, at least in the Anglo-Saxon

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¹ This is a theme that has been pursued on a number of occasions within the pages of the JEL. See for example, R Mushal, ‘Reflections upon American Environmental Enforcement Experience as it may relate to Post –Hampton Developments in England and Wales’ (2007) 19 JEL 201; C Abbot, ‘The Regulatory Enforcement of Pollution Control Laws: The Australian Experience’ (2005) 17 JEL 161.
⁵ See generally, Risk and Regulatory Policy: Improving the Governance of Risk (OECD 2010).
world, would regard it as approximating best practice in terms of where to allocate most of their resources.\footnote{See generally, Black and Baldwin (n 6).}

In contrast, the second task, determining how to intervene in the affairs of regulated organisations to ensure compliance and facilitate enforcement (hereafter intervention strategy) has been given far less attention, at least by regulators themselves.\footnote{See eg Enforcing Environmental Compliance: Trends and Good Practices (OECD Paris 2009) 13.} Furthermore, there is nothing remotely approaching consensus in terms of how it should best be determined. At first sight this might be surprising, since intervention strategy will have a crucial bearing on regulatory outcomes. This relative neglect by regulators (manifest in the lack of sophistication or coherence of such strategies in many jurisdictions\footnote{See Section 2 below.}) is perhaps even more surprising, given that there is a rich academic literature that has engaged with this question for over two decades.\footnote{For overviews, see M Cave, R Baldwin and M Lodge (eds) The Oxford Handbook of Regulation, (OUP 2010); C Parker and V Nielsen, (eds), Explaining Compliance (Edward Elgar 2011).}

Of course individual inspectors ‘on the ground’ may not actually adhere to their agency’s stated intervention strategy, and thus, a related question concerns how inspectors behave in practice (and why) and how to confine inspectorial discretion. How, for example, can discretion be contained without imposing mechanistic rules and driving inspectors to ‘go by the book’? This question has been the subject of substantial research, although this has not, to date, generated anything approaching consensus.\footnote{Compare eg J Black ‘Talking About Regulation’ [1998] PL 77; P May and S Winter ‘Reconsidering Styles of Regulatory Enforcement: Patterns in Danish Agro-Environmental Inspection’ (2000) 22 Law & Pol’y 143; M Pautz, ‘Trust Between Regulators and the Regulated: A Case Study of Environmental Inspectors and Facility Personnel in Virginia’ (2009) 37 Pol’y & Pol 1047.} While this issue will be touched upon in Section 4.3 below, it is not the main focus of the article, which is agency intervention strategy (usually clearly stated in agency documentation) rather than how inspectors exercise their discretion in interpreting that strategy.

The intended contribution of this article is to examine intervention strategy from a number of angles: descriptive, analytical and normative. Section 2 explores the strategies of a representative sample of environmental regulators. Based on their formal published policies, it identifies five distinctive strategies adopted by one or more of these agencies (together with a hybrid approach which combines different strategies with varying degrees of success). Contrasting theory and practice, this section also shows how these intervention strategies are only limitedly shaped by existing theoretical models. Section 3 examines the strengths and weaknesses of each of the above
strategies (and of two additional strategies identified in the academic literature). Against this backdrop, Section 4 turns to normative questions. How can resource allocation strategies and intervention strategies best be integrated? Is there a single ‘best practice’ strategy or does the most appropriate strategy depend on the context? What should be the role of hybrid intervention strategies? And how should discretion be constrained? Section 5 concludes.

In terms of methodology, intervention strategy is necessarily developed at regulator level and usually set out in a formal policy which is addressed to field officers and often also to regulated organisations and other stakeholders. As such, any relevant strategy is usually to be found in publicly available documentation provided by environmental agencies themselves. Accordingly, the first port of call in investigating intervention strategy is official documentation, via websites, press releases, annual reports and other publications, supplemented, where available, by public expositions of agency policy by senior staff. However, while in the case of most agencies such documentation clearly articulates a particular intervention strategy, this is not always the case. Where no strategy is clearly articulated then external sources, including academic research, commentary by former agency officials and by regulated entities or their associations, were also used to gain a better understanding of intervention strategy.

The jurisdictions chosen for inclusion in this study were the US Federal Environment Protection Agency (US EPA), the Florida Department of Environment Protection (DEP), The Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM), the United Kingdom Environment Agency and the environment protection authorities or similarly named agencies of the Australian states and territories (environment being primarily a state responsibility within the Australian federal system). Initially it was intended to include (in addition to the US EPA) three leading US state agencies: California, Pennsylvania and Florida. These states have multiple agencies (local as well as state) dealing with multiple environmental statutes, so that developing a unitary compliance and enforcement strategy is not practicable. In any event, given the paucity of information available from either internal or external sources, they were dropped from the study. The jurisdictions selected for inclusion are disproportionately Anglo-Saxon and were chosen primarily because their regulatory traditions are distinctive but not so disparate as to make comparisons inappropriate.

2. Types of Intervention Strategies

In principle, numerous intervention strategies might be adopted. At least seven such strategies can be identified in the academic literature: Rules and
Deterrence; Advice and Persuasion; Criteria Based Regulation; Responsive Regulation; Smart Regulation; Risk-Based Regulation; and Meta-Regulation\(^{12}\) (see Box 1 below). Such strategies are ‘ideal types’, unlikely to be found in the real world in this precise form, but nevertheless helpful as models to be used for heuristic purposes.\(^{13}\)

As will become apparent from the discussion below, not all of these theoretical models have been applied in practice. Overall, from the analysis of the sample jurisdictions, five distinctive regulatory strategies were identified. Most agencies used one or other of these strategies exclusively but a minority used a combination of strategies. The following sections describe the strategies and how different agencies applied them.

### 2.1 Rules and Deterrence

The US EPA is arguably the quintessential (and indeed in this sample, the only) example of an agency applying a ‘Rules and Deterrence’ strategy. Such a strategy relies heavily on a system of rules prescribing uniform standards applicable to diverse circumstances and assumes that ‘a ruthless and efficient investigation and enforcement capability will produce compliance through the mechanism of deterrence’.\(^{14}\) The EPAs traditional focus has been on compliance monitoring to identify violations and the collection of evidence to support enforcement actions coupled with targeted enforcement activity.\(^{15}\) It has assumed that once violations are detected then some form of enforcement action may be appropriate ‘because, in any society, many people will not comply with the law unless there are clear consequences for non-compliance’.\(^{16}\) Finally, in contrast to many European and Australian agencies, the US EPA is distinctively adversarial, readily resorting to litigation and confrontation.

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\(^{12}\) Three other strategies; Just Deserts, Restorative Justice and ‘Really Responsive Regulation’ might arguably have also been included. However, ‘Just Deserts’ (whose main aim is to punish non-compliance in a way that is proportional and just) is by definition not appropriate as a ‘core’ intervention strategy because changing behaviour to achieve compliance is not the main aim of this strategy. Restorative Justice (the aim of which in the environmental context is to give the offender a chance to proactively put things right) by its nature can only be used in conjunction with other regulatory approaches, not in isolation, since it only becomes relevant at a stage subsequent to a regulatory breach. Finally, ‘Really Responsive Regulation’ seeks to theorise beyond intervention strategy to matters such as the operating and cognitive environment of organisations, the institutional environment, the different logics of regulatory tools and to changes in these elements.

\(^{13}\) See generally, P May and S Winter, ch 10: Regulatory Enforcement Styles and Compliance, in Parker and Nielsen (n 10) for a review of different enforcement strategies and styles.


Box 1. Regulatory strategies: models identified in the regulatory literature

From a review of the regulatory literature seven distinctive (but often mutually compatible) regulatory enforcement and compliance strategies can be identified.

**Advice and Persuasion:** emphasises cooperation rather than confrontation, and conciliation rather than coercion. The aim is to prevent harm—achieved by bargaining, persuasion and negotiation rather than sanctioning. Recourse to the legal process here is rare, the assumption being that the majority of regulatees are willing to comply voluntarily.

**Rules and Deterrence:** emphasises a coercive, formal and adversarial style of enforcement and the sanctioning of rule-breaking behaviour. It assumes that regulatees are rational actors capable of responding to incentives, and that if offenders are detected with sufficient frequency and punished with sufficient severity, then they, and others, will be deterred from future violations.

**Criteria Strategies:** provide inspectors and other decision-makers with a list of criteria which they should consider in arriving at a decision in any given case. There is no prescriptive formula and which mechanism(s) will be used in any particular case will depend on the circumstances.

**Responsive Regulation:** suggests that best outcomes will be achieved if inspectors employ a blend of persuasion and coercion, the actual mix being adjusted to the particular circumstances and motivations of the regulatee. Regulators should begin by assuming virtue (to which they should respond by offering cooperation and information), but when their expectations are disappointed, they respond with progressively punitive and deterrence oriented strategies until the regulated group conforms (a form of ‘tit for tat’).

**Smart Regulation:** expands on some of the insights of Responsive Regulation and the enforcement pyramid, by suggesting how markets, civil society and other institutions can sometimes act as surrogate regulators and accomplish public policy goals more effectively, with greater social acceptance and at less cost to the state. It also argues that complementary mixes of enforcement strategies and tools will be more effective than ‘stand alone’ strategies.

**Risk-Based Regulation:** argues that the kind of intervention in the event of non-compliance should depend upon an evaluation of degree of risk to the environment posed by the infraction and calculations regarding the impact that the noncompliance will have on the regulatory body’s ability to achieve its objectives.
where it identifies a breach of rules, notwithstanding the evidence that this can often be counterproductive.17

The Rules and Deterrence theme emerges clearly from the US EPA’s formal documentation,18 which emphasises that ‘enforcement is a vital part of encouraging governments, companies and others who are regulated to meet their environmental obligations’. The EPA also states that ‘enforcement deters those who might otherwise profit from violating the law, and levels the playing field with environmentally compliant companies’.19 Emphasis is placed upon:

[S]trictive sanctions, including jail sentences, to promote deterrence and help ensure compliance in order to protect human health and the environment. Criminal enforcement is often used against the most serious environmental violations as well as those which involve egregious negligence or conduct involving intentional or knowing disregard of the law.20

Not coincidentally, given the American history of adversarial legalism, ‘deterrence’ and ‘enforcement’ are raised far more frequently in US EPA documentation than in comparable documents of its European or Australian counterparts.

Increasingly, the EPA has had to go beyond an exclusive reliance on Rules and Deterrence, as a result of the magnitude of the environmental challenges it is mandated to deal with, and its limited resources. As a matter of necessity, the EPA has had to explore more cooperative methods such as outreach,21 compliance assistance, mediation and other alternative dispute resolution techniques. Of particular note not only in the Clinton–Gore years, but also

Meta-Regulation: involves placing responsibility on the regulated organisations themselves (usually large organisations) to submit their plans to the regulator for approval, with the regulator’s role being to ‘risk-manage’ the risk management of those individual organisations. The goal is to induce companies themselves to acquire the specialised skills and knowledge to self-regulate, subject to external scrutiny. Accordingly the regulator’s main intervention role is to oversee and audit the plans put in place by the regulated organisation. Where it finds inadequacies it may invoke a responsive approach as described above.

19 Kagan (n 17).
21 Outreach for present purposes includes education and information dissemination, usually targeted at small and medium sized enterprises.
continuing today, is a range of initiatives designed to encourage, reward and facilitate ‘good apples’ to go ‘beyond compliance’.22

However, as Dan Fiorino, a past senior administrator of the US EPA, pointed out in 2006, these initiatives have not resulted in a fundamental rethink within the EPA itself. On the contrary, they have often been perceived by EPA regulators as a threat to their autonomy and traditional functions.23 They have, in short, been less about designing a new regulatory approach and more about fine tuning the old one. Indeed, ‘much of what was touted as re-invention in the 1990s may fairly be described as marginal’.24 Thus, it is no surprise that in its 2005 review of US environmental regulation, the OECD concluded that, ‘command-and-control regulation is still the cornerstone of US environmental protection, accompanied by considerable litigation, which is often costly and time consuming’.25

2.2 Advice and Persuasion

An ‘Advice and Persuasion’ strategy (also widely referred to as a ‘compliance’ strategy), with its emphasis on cooperation, conciliation and manifest reluctance to use enforcement and prosecution except as a last resort, was hard to identify in its pure form in the agencies studied. However, the Australian Government’s Department of Environment, Water, Heritage and Arts is certainly heavily Advice and Persuasion (rather than enforcement) oriented. It emphasises the promotion of self-regulation and the importance of encouraging the community to act in accordance with legislation,26 and seeks to act primarily through measures such as targeted communication and education activities, timely provision of information and advice, persuasion, cooperative assistance and collaboration.27 The Department aims to raise awareness of the benefits of complying, remove barriers to compliance and overcome factors that encourage non-compliance, while also encouraging industry-wide codes that promote compliance. However, where these compliance approaches fail, the department does make it clear that enforcement mechanisms will be used. Quite where the Department positions itself on the advice and persuasion—enforcement continuum is difficult to determine from its published documentation but there is some evidence to suggest that the considerable emphasis

24 Fiorino (n 23) 9.
27 Department of the Environment, Water, Heritage and the Arts (n 26).
on compliance in its documentation (to the substantial exclusion of enforce-
ment), is replicated in practice.28

In Victoria also, the approach of the Environment Protection Authority (EPA
Victoria) is, at least in part, oriented to ‘Advice and Persuasion’. This agency’s
Compliance Framework suggests for example that ‘the majority of people want
to comply’29 and that the goal is ‘to identify compliance risks to support
and manage those at risk of non-compliance’.30 There is an overall language
of ‘clients’ and ‘service’ in this document, with regulation sometimes described
as ‘mandatory services’ and enforcement as ‘non-compliance management’.
This language suggests that EPA Victoria is trying to frame its compliance
and enforcement activities in ‘service’ terms, consistent with a compliance-
oriented approach that downplays enforcement.

The characterisation of the practices of the Commonwealth and Victorian
environment agencies as ‘Advice and Persuasion oriented’ is consistent with
Carolyn Abbot’s review of the practices of these agencies. She concluded
that ‘a compliance based strategy is indeed still at the core of their respective
environmental enforcement policies’.31 The Victorian agency’s approach is
however a hybrid strategy, as discussed further at Section 2.6 below.

2.3 Criteria Strategies

These strategies do not involve a commitment to Advice and Persuasion or
to deterrence through enforcement. Rather, a wide range of options are
contemplated (and usually listed in an agency’s compliance and enforcement
policy or similarly named document). Which mechanism(s) to be used in any
particular case will depend on the circumstances. There is no prescriptive
formula and instead, inspectors and other decision-makers are provided with
a list of criteria which they should consider in arriving at a decision in any
given case. While no two jurisdictions apply precisely the same criteria, there
is considerable commonality in terms of a general approach.32

The Florida Department of Environment Protection (DEP) provides a good
example of this strategy. Before exploring particular decision-making criteria,

Protection and Biodiversity Conservation Act 1999 (Cth) and their Application by the
30 EPA (n 29) 6.
31 Abbot (n 1) 165.
32 These are similar to (but not identical to) what Yeung elaborates as the constitutional
principles which she argues should underpin enforcement, based on the constitutional
values of liberal, democratic legal systems. See K Yeung, Securing Compliance. A Principled

the DEP makes clear that its primary goal is ‘to resolve violations of Florida’s environmental requirements effectively and return violators to compliance as quickly as possible’. Accordingly it emphasises that many violations may be dealt with, ‘with the cooperation of the responsible party and without the need for formal enforcement’. Nevertheless, the DEP states that deterrence—delivering a potent message to the violator, and to others, that violations are not tolerated—will also be important. Thus, rather than adopting a strategy of either Advice and Persuasion, or Rules and Deterrence, the DEP opts for a mixed or balanced approach. This still begs the question of which tools will be applied under different circumstances.

Here, the DEP’s documentation advises that ‘determining the right response to any violation requires considering many factors’. These include:

- How serious was the violation?
- Is it a first-time violator or a chronic offender?
- Was the violation inadvertent, was it due to negligence, was it wilful?
- Can the site or facility be brought back into compliance without formal enforcement?
- Can any damage to the environment be undone or remediated quickly?
- Is the violator responding in good faith?

The Dutch VROM has adopted a broadly similar approach in terms of ‘doing things right’. Here the inspectorate uses the ‘Table of 11’ as a framework for determining what intervention to take. This table is a list of factors relevant to non-compliance, based on a combination of social, psychological and criminal theories on compliance behaviour and on practical experience. The factors are divided into three categories: ‘aspects of spontaneous compliance’ (knowledge of the regulation, cost/benefit ratio, degree of acceptance of the regulation, loyalty and obedience of the regulatee, informal monitoring); ‘aspects of monitoring’ (informal report probability, monitoring probability, detection probability, selectivity of the inspector); and ‘aspects of sanctions’ (chance of sanctions, severity of sanctions).

35 This message ‘may be in the form of penalties that hit the pocketbook, compensation required for damages, or implementation of “in-kind” projects that prevent pollution or otherwise enhance the environment. In all cases, ensuring that the violator fixes the problem and comes back into compliance is the first objective’ Florida Department of Environment Protection (n 33).
36 See ‘Compliance and Enforcement’ Florida Department of Environment Protection (n 33).
For example, questions asked by inspectors would include:

- What type of organisation is it?
- What is the financial status of the organisation?
- What investments are already made in order to comply?
- What is the history of the organisation: does it have a large history of regulatory non-compliance or is this the first time of non-compliance?
- Is there a compliance pattern detectable within the whole [industry sector]? 38

Once these factors have been determined, then an appropriate ‘intervention mix’ is generated.

A number of Australian jurisdictions also adopt Criteria Strategies. The Western Australian Department’s Enforcement and Prosecution Policy refers to fostering ‘consistent, integrated and coordinated enforcement action across all sections of the [Department]’ 39 and this is to be achieved via the ‘Principles of Enforcement’. According to these principles, enforcement action will be taken in proportion to the magnitude of the alleged offence and/or the environmental impact, taking into account the conduct of the parties and implications for the administration of the legislation. 40 The document goes on to list a number of specific criteria that the Department will consider in choosing the appropriate enforcement action. 41 Three other Australian jurisdictions (South Australia, 42 Tasmania 43 and the Commonwealth 44) also adopt a Criteria Strategy although the last of these is combined with an Advice and Persuasion strategy that orients the application of the criteria towards less interventionist compliance options such as a preference for informal exhortation over formal administrative notices.

As will be apparent, the application of a Criteria Strategy leaves individual inspectors and other decision-makers with extremely wide discretion as to what action they decide is appropriate. Just in case this is not obvious, the Western Australian policy explicitly states that ‘the Department has discretion in considering what is the appropriate enforcement action to be applied’. The agencies studied do not appear to have recognised the need to

38 See Van Der Schraaf (n 37) 5. The Table of 11 is applied mainly to deciding in advance what sort of interventions to take in relation to particular obligations and groups of companies. But it may also be applied to individual cases.
40 ibid 3.
41 ibid 5.
43 See Department of Primary Industries, Water and Environment, ‘Enforcement Policy’ (Tasmania 2004) 2.
constrain discretion under a criteria approach, notwithstanding that this conflicts with the ‘consistent, integrated and coordinated approach’ referred to above.

While it could be argued that a Criteria Strategy is a composite approach incorporating some elements of other strategies, it is nevertheless quite distinctive. For example, while an agency adopting a Rules and Deterrence strategy is predisposed towards tough enforcement action and one applying Advice and Persuasion is equally inclined to the opposite approach, an agency with a Criteria-Based Strategy will simply weigh up the various factors before exercising its considerable discretion to use advice, persuasion or more deterrent mechanisms in particular circumstances.

2.4 Risk-Based Strategy

Under the banner of ‘Better Regulation’ the England and Wales Environment Agency’s approach to resource allocation and targeting is quintessentially risk-based. So too is its approach to other aspects of its operations, including intervention strategy. Thus, the Agency is concerned not only to provide advice and guidance but also to enforce the law where it finds evidence of non-compliance.\(^\text{45}\) In each case, it is the level of environmental risk that is the primary determinant of what action it will take and this approach is implicit in the Environment Agency’s Compliance and Enforcement Policy. In particular, the principle of proportionality includes a statement that ‘enforcement action . . . will be proportionate to the risks posed to the environment and to the seriousness of any breach of law’.\(^\text{46}\) Confirmation that this is indeed the Environment Agency’s approach is apparent from a number of other sources. Perhaps the clearest articulation of this strategy is to be found in the following statement from the Agency’s Chief Prosecutor:

Essentially, when dealing either with a pollution incident or with a breach of the terms of a permit or authorisation, the Agency does a form of risk assessment: it endeavours to categorise the effect or potential effect of what has occurred in environmental damage terms.


\(^{46}\) UK Environment Agency, ‘Enforcement and Prosecution Policy’ (7 August 2008) oc No EAS/8001/1/1. 3. Note, shortly before going to press, the Environment Agency announced that from 2011, it will use a new enforcement and sanctions policy to guide it in its enforcement and prosecution decisions. The new policy documents consist of: An Enforcement and Sanctions Statement, which sets out a high-level view of the EA’s approach to enforcement; Enforcement and Sanctions Guidance, which explains how the EA will make decisions about enforcement; Enforcement and Sanctions Offence Response Options, which lists the sanctions (including civil sanctions where appropriate) and responses available for offences regulated by the EA.
The categorisation is simple and the incident is classified as either being major, significant, minor or having no environmental impact at all. Although the categorisation is simplistic, it is important as it leads to a suggested enforcement response. For instance, occurrences categorised as being of major effect will normally lead to a prosecution, whilst those falling into the lower two categories are more likely to be resolved by way of a formal caution or warning. An incident classified as significant is serious enough to recommend a prosecution or caution response rather than just a warning.47

The UK Environment Agency uses a number of tools to assist its approach to risk assessment (both in terms of resource allocation, and compliance and enforcement). Principal among these is OPRA (operator risk appraisal), a tool that enables the agency to objectively assess the risks from an activity. In particular, application of OPRA provides a risk-rating which is then used as part of the compliance assessment process. The compliance and enforcement process is also facilitated by Compliance Assessment Plans (CAPs) and the Compliance Classification Scheme (CCS), which provides consistency across different regulatory regimes in the reporting of non-compliance with permit conditions and the action the Agency takes.

In Australia, the New South Wales Department of Environment, Climate Change and Water (DECCW) has also adopted a risk-based strategy (and two other agencies, South Australia and Victoria, have elements of this approach). In New South Wales, regulation in all social spheres has been strongly influenced by the UK Better Regulation initiative and also by the (complementary) views of Malcolm Sparrow.48 The New South Wales Government’s Guide to Better Regulation refers to both these sources and endorses the risk-based approach.49 The document, Risk-based Compliance states:

A risk-based compliance approach enables resources to be targeted to the areas where they are most needed and will prove most effective. It involves a series of steps to identify and assess non-compliance risks and then apply appropriate compliance measures to control these risks.50

In turn, the New South Wales DECCW has embraced the general principles set out in the above documents. For example the Native Vegetation: Compliance

and Enforcement Policy states that:

A risk-based compliance approach targets the problems that pose the highest environmental and compliance risks. Therefore the regulatory approach will be balanced by a combination of education and information, and for significant breaches the necessary enforcement measures will be taken.\(^5\)

This policy goes on to state that DECCW’s response to non-compliance escalates in accordance with the risk that non-compliance poses to the environment and to conservation.\(^6\) The department’s intervention strategy is however a hybrid strategy (see Section 2.6 below) as it combines the risk-based approach with Responsive Regulation, the strategy discussed next.

### 2.5 Responsive Regulation

In broad terms, Responsive Regulation involves an approach to regulation in which the inspectorate employs a blend of persuasion and coercion, the actual mix being adjusted to the particular circumstances and motivations of the entity with whom they are dealing. The approach is based on a ‘tit for tat’ response whereby the regulatory agency approaches each organisation in a cooperative, flexible manner, but turns to deterrence if and when the organisation clearly defects from cooperation. Once the organisation begins to cooperate again, the agency does so too.\(^7\)

Although there is widespread endorsement of responsive approaches within academic writings, only two Australian jurisdictions, the Australian Capital Territory (ACT) and the Northern Territory appear to give priority to a strategy of Responsive Regulation, (notwithstanding the widespread endorsement of this approach in academic writing).\(^8\) The ACT Environment Protection Authority’s General Environment Protection Policy states that this agency’s approach to enforcement will be:

- first, to seek to work in partnership with business and the community as ‘co-regulators’ and educators;
- second, to warn;

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53 I Ayres and J Braithwaite, Responsive Regulation: Transcending the Deregulation Debate (OUP 1992).
54 The Environment Protection Authority, ‘General Environment Protection Policy’ (Department of Territory and Municipal Services, Canberra 2007) 3; Department of Natural Resources, Environment and the Arts, ‘Compliance Guidelines’ (Northern Territory Government, undated).
third, to take non-criminal statutory action such as authorisation variations and issuing environment protection orders, together with on-the-spot fines as appropriate and requiring compulsory environmental audits; and

finally, to consider suspension or cancellation of an agreement or authorisation, or referral to the Director of Public Prosecutions (DPP) for a decision on prosecution, or both, as appropriate.55

This approach reflects Responsive Regulation’s central operational tool, the ‘enforcement pyramid’. This pyramid, which involves advisory and persuasive measures at the bottom, mild administrative sanctions in the middle, and punitive sanctions at the top, is intended to assist in determining what enforcement tools to use in any given case. According to its proponents, regulators should begin by assuming virtue (to which they should respond with cooperation and information), but when their expectations are disappointed, they should respond with progressively punitive and deterrent oriented strategies until the regulated entity conforms.56

The Northern Territory agency’s Compliance Guidelines also suggest a Responsive Regulation strategy. The guidelines state:

Consistent with the Principles of Compliance, the Office will therefore give priority to cooperative actions that promote compliance such as education and the provision of information and advice. Where this fails or is not appropriate, priority will be given to the use of legislative action such as compliance plans, formal directions, suspension or cancellation of licences, and pollution abatement notices. Consistent with Guidelines issued by the Director of Public Prosecutions, prosecution proceedings may be instituted where there is sufficient evidence and it is in the public interest.57

Elements of both Florida’s DEP and Victoria’s EPA intervention strategies are also suggestive of Responsive Regulation (see Section 2.6 below), as is the New South Wales’ DECCW’s strategy (see Section 2.4 above). However, Responsive Regulation is not the dominant approach in the policy documents in these jurisdictions.

55 The Environment Protection Authority ‘General Environment Protection Policy’ (Department of Territory and Municipal Services, Canberra 2007) 3. Note, however, that this approach is adopted for guidance only and serious cases may justify immediate application of a strict approach to enforcement.
56 Ayres and Braithwaite (n 53).
57 Department of Natural Resources, Environment and the Arts (n 54) 2.
While Responsive Regulation has some superficial resemblance to the Criteria Strategy, the former involves the regulator negotiating an ongoing relationship with a regulatee so as to escalate up or down an enforcement pyramid, in response to the actions and intentions of the regulate. The latter involves an inspector determining what action to take at a particular point in time based on weighing up the relevant criteria. Equally, while Responsive Regulation embraces elements of two other strategies—Advice and Persuasion and Rules and Deterrence (and so might arguably be regarded as a hybrid)—it does so in different circumstances and as part of a single, coherent tit-for-tat strategy.

2.6 Hybrid Strategies

A number of jurisdictions appear to rely upon more than one of the above strategies, but quite how they do so varies from case to case. What is important about hybrid strategies is the precise mix that is contemplated, for while some mixes are complementary, others are not. This will become apparent from the discussion in Section 4 below.

The South Australian Environment Agency has what in part seems to be a Criteria Strategy but it applies this approach in conjunction with risk-based regulation. Thus, its formal documentation refers to a risk-based approach which is embodied by the Compliance and Enforcement Management Based System (CEMS) which is intended to ensure effective and efficient use of resources, consistency, a comprehensive governance system, continuous improvement and the management of business environment and reputation risk. This involves a six step process which (after categorising a potential non-compliance and validating the original categorisation) focuses on assessment. The assessment prioritises non-compliance by ‘generally using a risk-assessment approach, considering a number of categories of risk including environmental and human health and risk to the regulatory regime’. A decision-action plan is then made to address the non-compliance followed by implementation and follow-up.

Another hybrid is the New South Wales’ DECCW’s combined risk-based and responsive approach to compliance and enforcement. As described earlier, this agency’s approach is quintessentially risk-based, with the Risk-Based

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58 The enforcement pyramid (Ayres and Braithwaite n 53) that involves advisory and persuasive measures at the bottom, mild administrative sanctions in the middle, and punitive sanctions at the top, is intended to assist in determining what enforcement tools to use in any given case. According to its proponents, regulators should begin by assuming virtue (to which they should respond by offering cooperation and information), but when their expectations are disappointed, they respond with progressively punitive and deterrent oriented strategies until the regulated group conforms.

59 Environmental Protection Authority (n 42) s 3.3.

60 ibid s 3.4.
Compliance document setting out how such an approach should be applied and describing the series of risk assessment steps.\textsuperscript{61} Yet curiously, the following statement (which might easily have come out of a text on Responsive Regulation) is made in the midst of the document:

Having a combination of measures allows agencies to be responsive to the actions of the regulated party as the agency is able to escalate to harsher measures if a non-complier continues to do the wrong thing after they are given warnings or penalty notices. The availability of severe measures can make persuasive measures more effective. Individuals and businesses are often more likely to respond to persuasive measures knowing that they may be penalised if they do not comply.\textsuperscript{62}

This statement is not elaborated in any way in the document, which in all other respects is exclusively risk-based. Nor is any attempt made to explain how Risk-Based and Responsive Regulation can be integrated by inspectors. This question of whether Risk-Based and Responsive Regulation can be effectively integrated in practice is revisited in Section 4 below.

Probably, the most complex hybrid strategy in the sample is EPA Victoria’s, as contained in its Enforcement Policy and the Compliance Framework.\textsuperscript{63} The Enforcement Policy is primarily descriptive and the Compliance Framework does not set out a strategic approach to enforcement. As indicated above, the language used in the Compliance Framework suggests that the EPAs approach is oriented to Advice and Persuasion. However, elsewhere in the Compliance Framework there are also elements of Responsive Regulation. For example, there is a commitment to ‘a clear escalation approach in incidences of non-compliance’.\textsuperscript{64} In addition, later parts of the document suggest that EPA Victoria is taking an overarching risk-based approach which extends to the verification and compliance support activities that are to be used to identify and manage compliance risks.\textsuperscript{65} While such hybrid strategies are not inherently incoherent or counterproductive, they can only produce efficient and effective policy outcomes if there is considerable thought to ensure that their various components operate in a complementary fashion. There is no indication that these challenges have been given attention in the Victorian approach.

\textsuperscript{61} The Better Regulation Office (n 50).
\textsuperscript{62} ibid 12.
\textsuperscript{63} EPA Victoria, ‘Enforcement Policy’ (Publication 384.3, July 2006); EPA Victoria, ‘Compliance Framework’ (Dec 2009).
\textsuperscript{64} ibid 6.
\textsuperscript{65} ibid s 6.2.
Intervention Strategies in the Literature and in Practice

To summarise, many but not all of the strategies that have been advocated in the academic literature can also be found in the implementation strategies of sample agencies. These are: Rules and Deterrence; Advice and Persuasion; the Criteria Strategy; Risk-Based Regulation and Responsive Regulation. Two other strategies—‘Smart Regulation’ and ‘Meta-Regulation’—could be found in the theoretical literature but not in practice in the agencies studied.

As indicated at the outset, the preliminary question of where to allocate resources and which sectors and organisations to target for inspection (where to intervene as distinct from how to intervene subsequent to resource deployment issues being resolved) is beyond the scope of the article, except insofar as there is an interaction between the two questions (on which see Section 4.1 below).

Evaluating Different Intervention Strategies

The previous section described five distinctive intervention strategies currently applied by the agencies studied, and several hybrid strategies. This section considers what is known (and particularly what is known empirically) about the strengths and weaknesses of these strategies and also examines the other intervention strategies discussed in the academic literature. This examination is a necessary precursor to asking ‘what works best?’ (Section 4).

Neither Rules-and Deterrence nor Advice and Persuasion have proved to be effective or efficient intervention strategies in isolation. In principle, Rules and Deterrence can play a positive role, especially in reminding organisations to review their compliance efforts and in reassuring them that if they comply, others will not be allowed to ‘get away with non-compliance’. Nevertheless, in practice, the impact of ‘Rules and Deterrence’ approaches is very uneven. Deterrence is, for example, better at influencing rational actors, who consciously balance costs and benefits, than the merely incompetent.66 However, unless it is carefully targeted, it can actually prove counterproductive—for example, when it prompts organisations and individuals to develop a ‘culture of regulatory resistance’ or to take a defensive stand, suppressing information.

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and failing to explore the underlying cause of accidents for fear that this information will be used against them in a court of law. Finally, in terms of general deterrence, the evidence shows that regulated business organisations’ perceptions of legal risk (primarily of prosecution) play a more important role in shaping organisation behaviour than the objective likelihood of legal sanctions. However, even when perceptions of legal risk are high (as distinct from actual risk) this is not necessarily an important motivator of behaviour.

The evidence suggests that Advice and Persuasion, while valuable in encouraging and facilitating those willing to comply with the law to do so, may prove disastrous against those who are not disposed to voluntary compliance. More broadly, Advice and Persuasion may actually discourage improved regulatory performance amongst better actors if agencies permit lawbreakers to go unpunished. This is because even those who are predisposed to be ‘good apples’ may feel at a competitive disadvantage if they invest money in compliance at a time when others are seen to be getting away with non-compliance. In short, a strategy of Advice and Persuasion will have different impacts on organisations according to their motivations. It may be appropriate for environmental leaders but it will not be effective for engaging with reluctant compliers or the recalcitrant, and only effective for the incompetent if it is coupled with education and advice.

Responsive Regulation seeks to overcome the limitations of both Rules and Deterrence, and Advice and Persuasion strategies by taking advantage of the strengths of both, while compensating for their weaknesses. Responsive Regulation has the attraction of being sufficiently flexible to accommodate the various motivations of different organisations, which can drive them to respond on a continuum from leaders who aspire to go substantially beyond compliance with existing regulation, to laggards who are reluctant even to achieve compliance with minimum legal standards, or are simply incompetent in how they go about it.

However, in practice, a responsive approach (which in itself can take a number of different forms) and the related application of an ‘enforcement pyramid’ involving gradually escalating intervention against regulatees who

69 Braithwaite and Makkai (n 66) 35.
72 May and Winter (n 13).
do not cooperate, is best suited to the regulation of large organisations with which the regulator has frequent interactions (enabling a strategy of ‘tit for tat’ to play out). As Johnstone point out:

... for the pyramid to work in the interactive, ‘tit for tat’ sense envisaged by its proponents, the regulator needs to be able to identify the kind of firm it is dealing with, and the firm needs to know how to interpret the regulator’s use of regulatory tools, and how to respond to them.\textsuperscript{74} This requires regulators not only to know what is entailed in effective compliance programs and systematic [preventative] approaches, but also to have a sophisticated understanding of the contexts within which organisations operate, and the nature of an organisation’s responses to the various enforcement measures.\textsuperscript{75}

All this is a tall order. The result is likely to be that the less intense and the less frequent the inspection, and the less knowledge the regulator is able to glean as to the circumstances and motivations of regulated organisations, the less practicable it becomes to apply Responsive Regulation. Where responsiveness \textit{is} applied in practice there is qualified evidence of its virtues\textsuperscript{76} although the most recent empirical analysis suggests that Responsive Regulation in its ‘tit for tat’ form has some effect on behaviour but not on attitudes.\textsuperscript{77} There is also evidence to suggest that regulatory inspectors often do not manage to behave responsively (or at least to be fully responsive) when interacting with regulated companies.\textsuperscript{78}

Like Responsive Regulation, Risk-Based Regulation provides a strategy for regulators to determine their response to particular regulated entities, it does so primarily on the basis of risk to the environment (though the regulatee’s degree of cooperation or responsiveness to the regulator is also a relevant consideration). Risk-Based Regulation has the attraction of enabling regulators to prioritise their regulatory efforts and to maximise cost effectiveness. Nevertheless, a number of serious challenges confront the risk-based strategy—above and beyond the degree of sophistication of the risk assessment and quality of information available on which the assessment and

\textsuperscript{76} For reviews, see R Baldwin and J Black, ‘Really Responsive Regulation’ (2008) 71 MLR 59.
\textsuperscript{78} See Nielsen and Lehmann (n 73).
management of risk can be based. In terms of the contribution of a risk-based approach to intervention strategy, Black and Baldwin point out that while:

...risk scoring may provide a very ready basis for detecting high-risk actors...it may offer far less assistance in identifying the modes of intervention that are best attuned to securing compliance...the firm's high risk score does not indicate, in itself, whether the best way to reduce the risks posed by the firm is to use a command-and-control regime applied in, say, a deterrence fashion, or whether an incentive-based, educative, escalating sanctions, or disclosure strategy would prove more effective. The kind of intervention required may at best be loosely linked to the level of risk the firm presents.\footnote{Black and Baldwin (n 6) 189–190 (emphasis added).}

While this last insight is an important one, there is very little available empirical evidence as to how Risk-Based Regulation (as an intervention strategy distinct from a mechanism for allocating resources) operates in practice. One of the few insights that can be gleaned on this question flows from Julia Black's research on the Australian Prudential Regulation Authority (APRA). She shows how APRA deliberately created a more effective interventionist approach to regulation which involved requiring different inspectorial stances—normal, oversight, mandated improvement and so on—depending upon the organisation's risk profile.\footnote{Black, 2006 (n 6) 16; J Black, 'The Development of Risk-Based Regulation in Financial Services: Just “Modelling Through”?' in J Black, M Lodge and M Thatcher (eds), Regulatory Innovation: A Comparative Analysis (Edward Elgar 2005) 156.} The broader questions of how, and how effectively, Meta-Regulation is applied have not been the subject of extensive study, although there is general agreement that much depends on the specialist skills and capabilities of the regulator.

Although the Criteria Strategy (or something closely approximating it) was identified in some of the early writings on regulation\footnote{See in particular, two early and classic studies: K Hawkins, Environment and Enforcement (Oxford University Press 1984) and B Hutter, Compliance, Regulation and the Environment (Clarendon Press 1997).} it has not subsequently found any notable academic advocates. This is likely because it is essentially a list of different criteria that a field officer can take into account in decision making. As such it is not a coherent intervention strategy in its own right, capable of being developed theoretically or (given the vast discretion it provides to field officers) tested empirically.

The two strategies in the academic literature that were not found in the intervention strategies of any of the sample agencies, are concerned with...
extending the reach of the regulator, rather than choice of intervention mechanisms.\textsuperscript{82} Smart Regulation seeks to overcome limitations where interactions between regulators and regulatees are infrequent, by harnessing third parties as surrogate regulators.\textsuperscript{83} Those who might fulfil this role include local communities and NGOs bringing complaints or acting to shame recalcitrant businesses into compliance or even business associations acting to police their members. To date, the empirical research on Smart Regulation is supportive but not conclusive.\textsuperscript{84} Although ‘many governments have adopted the term to provide intellectual justification for a wide range of public-sector regulatory reform initiatives’\textsuperscript{85} the success of these initiatives is less studied. Research has focused on occasions where regulators have failed to follow the precepts of Smart Regulation,\textsuperscript{86} or on areas where this approach could prove particularly fruitful,\textsuperscript{87} rather than on whether existing Smart Regulation initiatives have been demonstrably successful.\textsuperscript{88} Perhaps the greatest challenge is coordinating government and third party pressure. While Smart Regulation’s three sided enforcement pyramid, which contemplates escalation of pressure by government, business or third parties, seeks to show ways that this might be achieved, its proponents concede that this will not always be possible.\textsuperscript{89}

Meta-Regulation also seeks to extend the reach of the regulator and, like Risk-Based Regulation, is both a resource allocation and an intervention strategy. In terms of the latter, the role of the regulator is to oversee the effective development, implementation and monitoring of environmental management and related risk management plans by the regulated organisation itself.

\begin{itemize}
\item \textsuperscript{82} Although space precludes further examination, as my colleague Liz Bluff has pointed out to me, intervention strategies themselves are of three broad types. Advice and Persuasion, and Rules and Deterrence are \textit{mechanisms} in themselves and they also define the type of mechanisms the regulator will use in most, if not all, circumstances. Responsive Regulation, the risk-based strategy and the Criteria Strategy are different \textit{ways to determine} which mechanisms the regulator will use in responding to a particular regulatee (from a range of mechanisms from Advice and Persuasion to more deterrent measures (which may be set out in a pyramid)). Smart Regulation and Meta-Regulation are \textit{ways to extend the capacity of the regulator to enforce} by harnessing third parties and/or the regulated entity themselves. But the regulator may still use its range of enforcement mechanisms within the framework of Smart Regulation or Meta-Regulation.
\item \textsuperscript{83} \textsuperscript{See N Gunningham, P Grabosky and D Sinclair, \textit{Smart Regulation: Designing Environmental Policy}, (Oxford University Press 1998).}
\item \textsuperscript{84} \textsuperscript{See for example, W Huisman and J Van Erp, ‘Smart Regulation and Enforcement of Illegal Disposal of Electric Waste’ (2010) 9 Criminology & Pub Poly 579.}
\item \textsuperscript{85} \textsuperscript{C Tollefson, F Gale and D Haley, \textit{Setting the Standard} (University of British Columbia Press 2008) 257.}
\item \textsuperscript{86} \textsuperscript{M Howlett and J Rayner, ‘(Not so) ‘Smart Regulation’? Canadian Shellfish Aquaculture Policy and The Evolution of Instrument Choice for Industrial Development’ (2004) 28 Marine Poly 171.}
\item \textsuperscript{87} \textsuperscript{See eg Huisman and Van Erp (n 84); see also the various case studies in N Gunningham and D Sinclair (n 22).}
\item \textsuperscript{88} \textsuperscript{For an example of the latter, see Gunningham and Sinclair (n 22).}
\item \textsuperscript{89} \textsuperscript{Gunningham, Grabosky and Sinclair (n 83) ch 6.}
\end{itemize}
Meta-Regulation has tended to be used in limited areas to which its application is particularly suited. Most notably, in the guise of a 'safety case' regime, it has been used to ensure health, safety and environment protection in the operations of major hazard facilities such as offshore oil rigs. The highly targeted use of Meta-Regulation is in large part a consequence of limited circumstances in which it is likely to be effective. It requires specialist, high quality regulators to oversee the risk management strategies of the regulated organisation, and highly sophisticated and motivated regulated organisations to develop and implement such strategies successfully and to regulate themselves effectively. At the very least, a receptive corporate culture is a necessary, albeit not a sufficient condition, for its success. Overall there is evidence that Meta-Regulation has a positive impact on corporate behaviour in targeted organisations, although relatively little is known about how this comes about.

Finally, with regard to both Smart Regulation and Meta-Regulation, critics might suggest that these strategies are not enforcement strategies per se and for this reason should not have been included in the present analysis. Certainly, as indicated earlier, both these strategies are concerned with extending the reach of the regulator, rather than just with the choice of intervention mechanisms and Meta-Regulation, like Risk-Based Regulation, is both a resource allocation and an intervention strategy. However, there is merit in including them because, notwithstanding that both are ways to extend the capacity of the regulator to enforce (by harnessing third parties and/or the regulated entity themselves) they are intimately connected with 'pure' intervention strategies and the regulator may still use its range of enforcement mechanisms within the framework of Smart Regulation or Meta-Regulation. The reason that such strategies were not identified among sample agencies was not a 'category error', but, rather, because they had not seen reason to invoke them. Had the sample included major hazard facilities (with whom Meta-Regulation is a popular intervention strategy) it would certainly have been identified, as would Smart Regulation had the sample been, 90


92 For a review see N Gunningham, Mine Safety: Law, Regulation and Policy (Federation Press 2007) ch 3.

93 Meta-Regulation's image has been tarnished by its failure (as applied in the UK by the Financial Services Authority) to address the failings that led to the Global Financial Crisis. This, however, may be more a lesson about how to handle systemic risk and the dangers of 'light handed' regulation than about inherent defects in Meta-Regulation. See generally Black and Baldwin (n 6).

94 I am grateful to an anonymous referee for making precisely this point.
for example, of occupational health and safety agencies (many of whom actively seek to harness third parties such as trade unions, as surrogate regulators).

4. Where Next?

Against a backdrop of multiple intervention strategies, with differing strengths and weaknesses, this section turns to normative questions in terms of designing policy. Is there a need to integrate resource allocation and intervention strategy, and if so how? What should be the role of hybrid intervention strategies? Is there a single ‘best practice’ strategy, or does the most appropriate approach depend on the context? How should discretion be constrained? Is it possible to balance effectiveness and legitimacy and, if not, how should the tension between them be resolved?

4.1 Achieving Integration: Resource Allocation, Intervention and Hybrid Strategies

While the focus of this article is on intervention strategy rather than resource allocation strategy (in other words how to intervene rather than where to intervene), in the case of some intervention strategies it is important to consider the nexus between the two strategies. In some cases a link is assumed where none exists, while in others there is a relationship but one more complex than is often appreciated.

The assumption of a connection between resource allocation and intervention strategies, where none actually exists, is most apparent in the practices of the UK Environment Agency. This agency (reinforced by the Hampton Report95) takes the view that risk-based regulation approximates ‘best practice’ in terms of both resource allocation and intervention strategy.96 However, almost all the attention (and all the available evidence) concerns the former (for example, risk as a criteria for targeting inspections and allocating resources between different industries or types of firms), and it is either simply asserted or tacitly assumed that a risk-based approach will also be the most efficient and effective intervention strategy. This is not necessarily the case. Indeed, a number of other regulators rely on risk-based targeting while adopting a very different intervention strategy. As the OECD has pointed out:

How closely the regulators’ risk assessments are linked into a particular enforcement approach is a significant point of variation between the

95 Hampton (n 3).
96 See UK Environment Agency (n 45).
different risk-based frameworks. Many regulators have enforcement policies or compliance strategies. These may categorise firms on the basis of their attitude to compliance... The enforcement strategies may themselves be risk-based in that they incorporate an assessment of the likelihood of success of formal enforcement action... Often, however, there is no direct link between the risk category of a firm and the enforcement strategy that the regulator will adopt.\(^97\)

In other cases, there is a link between allocation and intervention strategy but its precise nature is strategy specific. For example, Meta-Regulation relies heavily on an organisation’s internal management controls which the regulators will then oversee. This is in effect a resource allocation strategy, which pragmatically takes account of the fact that regulators do not have the resources to do anything else.\(^98\) But what happens when an organisation fails to self-regulate effectively? As discussed, in a rare case study Black has shown how one agency deliberately created a more effective interventionist approach to regulation which involved requiring different inspectoral stances depending upon the organisation’s risk profile.\(^99\) This case suggests the capacity for a Meta-Regulatory intervention strategy (relying on risk profiles) to be effectively connected to a strategy of Responsive Regulation applying a pyramid of enforcement mechanisms.\(^100\) Specifically, the combination of Meta- and Responsive Regulation enables more and escalating enforcement responses to be invoked depending on the degree of cooperation of the regulated organisation, with cooperation resulting in de-escalation down the enforcement pyramid and the converse response to resistance.\(^101\)

This example raises more directly the role of hybrid intervention strategies. As we mentioned in Section 2, a number of jurisdictions have adopted a combination of two or more different strategies. They have done so, for the most part, with little apparent attention as to whether such hybrids are complementary or counterproductive.

In South Australia, for example, the policy question is whether or to what extent a Criteria and a Risk-Based Strategy can be successfully integrated. It would appear that the answer is: it all depends. If risk trumps other criteria to the extent of any inconsistency between them, then those criteria are rendered


\(^98\) Black and Baldwin (n 6).

\(^99\) ibid 16; Black 2005 (n 80).


\(^101\) Braithwaite (n 100).
meaningless by the introduction of risk. This seems unlikely to have been the intent of policy makers. If, on the other hand, risk is simply one more factor to be taken into account (with no indication as to how conflict between different factors will be resolved) then the indeterminacy of the criteria approach is not addressed and the role of risk may be a modest one, perhaps at most tipping the balance in cases that otherwise are finely weighed between different factors.

Another combination (most readily identified in New South Wales) is to combine Risk-Based with Responsive Regulation. It is understandable that regulators should be tempted to try and integrate these two strategies, given that they have been so influential both in theory and in shaping the behaviour of regulatory agencies. Nevertheless, combining them can give rise to serious problems. A risk-based strategy implies that the higher the risk to the environment, the tougher the enforcement action that should be taken, with past experience of the individual operator being taken into account as one indicator of future risk. In contrast, under Responsive Regulation the regulator should approach the regulated entity assuming virtue and certainly without an evaluation of risk shaping its decision as to the appropriate form of intervention. Its normative basis is also quite different from that of Risk-Based Regulation. Not least, Responsive Regulation appeals to the better nature of the regulatee and appears (and is) just, in a way that Risk-Based Regulation, based as it is on utilitarian assumptions, is not.

4.2 'One size fits all' Intervention Strategies May be Inappropriate

One striking feature of the intervention strategies described above is that they assume that a single strategy is appropriate to all. Certainly, some of these strategies are flexible enough to take account of different motivations. For example, a Criteria Strategy usually includes culpability as one of its criteria but, as we will see, provides no coherent means for choosing between different criteria. In a far more coherent way, Responsive Regulation also take account of different motivations as part of the ‘tit for tat’ interaction, and Risk-Based

102 Hampton (n 3) and H Van de Bunt, J Van Erp and K Van Wingerde, ‘Hoe Stevig is de Pyramid van Braithwaite? (How Strong is Braithwaite's Pyramid?)’ (2009) 49 Tijdschrift voor Criminologies 225 (arguing that almost every department in the Netherlands has implemented Responsive Regulation in their strategy).

103 I am grateful to Christine Parker for her insights in writing this section.

104 Although a Criteria Strategy might claim that its listed criteria for decision making could address different circumstances and motivations (though they do not provide any mechanism for doing so), Responsive Regulation that its enforcement pyramid takes account of different motivations (they do, but still as part of a single escalatory strategy) and Smart Regulation that different instruments and actors need to be harnessed in different situations (a more credible claim, but none of the sample agencies had embraced Smart Regulation).
Regulation regards motivation as one important risk factor. Even so, each of these strategies prescribes a single approach—whether it is the application of criteria, escalating up an enforcement pyramid, or taking action on the basis of risk—for all regulatees in all circumstances. In short, none of the strategies described recognises that different intervention strategies might be appropriate in different circumstances.

This is unfortunate, because there is unlikely to be a single identifiable ‘best practice’ approach that should be applied to all duty holders ‘across the board’. Rather, because different duty holders confront different external pressures, and have different skills, capabilities and motivations, a best practice intervention strategy needs to invoke different mechanisms in different contexts. Recent academic work (for example that of Valerie Braithwaite on regulatory postures\textsuperscript{105} and John Braithwaite’s on the ‘new’ enforcement pyramid\textsuperscript{106}) is increasingly seeking to come to terms with the importance of different motivations and what this means for regulation.

However, only very rarely have regulatory agencies sought to address these issues. In one exceptional case, Black has shown how the Australian Prudential Regulation Authority has deliberately created a more pre-emptive and effective interventionist approach to regulation which involves requiring different inspectoral stances—normal, oversight, mandated improvement and so on—depending upon the organisation’s risk profile.\textsuperscript{107}

Environmental agencies, like the vast majority of regulatory agencies generally, seem not to have considered these issues at all, yet they deal with a wide range of different individuals and businesses, and have quite diverse relationships with them. Accordingly, the nature of the relationship between the regulator and regulatee can and should depend substantially on the characteristics of the latter and the resources available to the former.

For example, in the case of reluctant compliers and the recalcitrant, it is only if the self-regulation and risk management of the industry is closely scrutinised by government with the threat of more direct intervention if it fails, that an enterprise is likely to take effective action. And in the case of industry leaders, Meta-Regulation will only work if the inspectorate shifts its emphasis from conventional inspection to audit and oversight of the management system and risk assessment and management.

To illustrate, an environmental regulator could usefully think about its intervention strategy in different terms depending on: (i) whether the obligation-holder has self-interest in good environmental performance that

\textsuperscript{105} V Braithwaite, \textit{Defiance in Taxation and Governance: Resisting and Dismissing Authority in a Democracy} (Edward Elgar 2009).


\textsuperscript{107} See Black 2006 (n 6).
goes beyond regulatory requirements; and (ii) the degree of environmental risk posed by the organisation’s operations. This might result in four main categories reflecting whether the regulator will have an ongoing relationship with the obligation-bearer and the type of engagement:

(i) **High Performers**: Organisations and perhaps some individuals who are highly motivated to innovate to go beyond compliance to develop continuous improvement in environmental stewardship and sustainability. Organisations and individuals in this group might have licences and other obligations as well, but their ‘beyond compliance’ activities should be treated differently by the regulator.

(ii) **Environmental Strategists**: Large, sophisticated organisations with self-interest in good environmental performance which require a licence, but which can also be motivated to go beyond compliance to some extent—for example, large reputation-sensitive companies which need to protect their ‘social licence to operate’. This is the underpinning for ‘two track’ regulation designed to provide rewards and incentives for improved compliance and high environmental performance. Under this approach, enterprises with certain environmental credentials are offered a choice between a continuation of traditional forms of regulation on the one hand, and a more flexible approach (the central pillars of which are usually the adoption of an environmental management system, periodic internal environmental audits, and community participation) on the other.108

(iii) **Reactive Licensees**: Other organisations with the capacity to cause major environmental harm—put broadly, other licensed premises.

(iv) **Low Risk Enterprises**: Non-licensed premises which do not have the potential to cause major environmental harm, including many small and medium sized organisations, and individuals.

Having made this distinction, a different intervention strategy, or combination of strategies, might be applied for each of the four groups. High Performers, for example, might lend themselves to Meta-Regulation, as these organisations would be motivated to ensure the specialised skills, knowledge and risk management systems to self-regulate. Indeed this group might help the regulator to identify gaps and potential improvements in its own environmental policies and tools.

Environmental Strategists would also be a candidate for Meta-Regulation coupled with Responsive Regulation and Smart Regulation. This approach would enable the regulator to engage with these large organisations with complex environmental problems by inducing them to acquire the specialised

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108 See eg the Wisconsin Green Tier Model (Wisconsin Department of Natural Resources 2000).
skills and knowledge to self-regulate, while also ensuring external scrutiny. Underpinning Meta-Regulation with a form of Responsive Regulation would provide a mechanism to manage the risk of backsliding. Meta-Regulation and Responsive Regulation are a complementary combination for reasons argued above. Smart Regulation’s insights about the capacity to harness third parties as surrogate regulators might also be taken into account. Significantly, large reputation-sensitive companies confront powerful pressures from concerned local communities (and sometimes from broader-based environmental NGOs) and must protect their ‘social licence’.109 Empowering third parties to bring pressure to bear has sometimes proved a highly effective strategy in these circumstances.110

Reactive Licensees are a candidate for Responsive Regulation coupled with risk-based resource allocation and targeting by the regulator to determine the extent of performance verification, reporting and monitoring activity required. Enforcement would be escalated, in accordance with the principles of Responsive Regulation, in the case of failure to comply. The responsive approach would be preferred to a risk-based approach because it provides considerably greater guidance as to the appropriate regulatory response. To the extent that regulatees in this group are reputation sensitive, Responsive Regulation might be strengthened by invoking Smart Regulation’s strategy of harnessing surrogate regulators.

In contrast, the regulator is unlikely to need to have regular contact with Low Risk Enterprises because of the lower potential for environmental harm and smaller scale of these organisations’ operations. Responsive Regulation is unlikely to be appropriate because the regulator’s infrequent contact with such organisations means there is little history on which to base a responsive interaction. Likewise, a risk-based intervention strategy is inappropriate, as risk assessment by the regulator is impractical in these circumstances, the regulator having too little contact and too little information on which to base such an assessment (although of course risk assessment has been used at an earlier stage in terms of determining where to intervene). In terms of regulating Small and Medium Sized Enterprises (SMEs) in particular, a different approach might include: facilitating self-inspection and self-audit; harnessing surrogate regulators, such as local Councils or community groups, to report any environmental concerns that do arise; and innovative enforcement, such as publicity campaigns preceding enforcement blitzes targeted to specific industry sectors, and sanctioning and review of the group (iv) status of laggards.111

109 See Gunningham, Kagan and Thornton (n 106).
110 See Gunningham and Sinclair (n 22) chs 6–9.
111 For a more developed argument as to how best to regulate SMEs, see Gunningham and Sinclair (n 22) ch 2.
4.3 Constraining Discretion

A further policy issue of considerable practical importance is how to ensure that inspectors exercise their considerable discretion112 in a manner consistent with agency strategy. How, for example, can discretion be constrained without imposing mechanistic rules and driving inspectors to ‘go by the book’? This question has been the subject of substantial research, although this has not generated anything approaching consensus.113 At the very least, there is broad agreement that channelling field officers’ behaviour in accordance with agency strategy is a major challenge.114

There are particular problems constraining discretion under a Criteria Strategy. While most sample jurisdictions applying a Criteria Strategy do not appear to have recognised the need to constrain discretion as a particular problem, there are a number of mechanisms that might be invoked to do so. Different regulators have approached the challenge of inspector discretion by different means. In the USA, some regulators have taken a narrow and legalistic approach, insisting that inspectors follow highly detailed formal rules.115 Elsewhere, regulators have variously required that enforcement decisions be taken (or overseen) by senior rather than field officers, made subject to processes of internal and external review, or that field officers follow a formal model which ensures that they take into consideration a range of issues before making a decision.116 None of these approaches is without its problems.

One approach with more promise is to develop a decision-making framework to facilitate the balancing or resolution of conflicting factors. For example, the UK Health and Safety Executive’s Enforcement Management Model (EMM) provides a practical, step-by-step decision-making process for individual inspectors and increases the consistency of enforcement policy and practice. An alternative approach is the United States Sentencing Guidelines117 which seeks to structure but not eliminate discretion by allocating a numerical value

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112 As to variation in the actions of inspectors see R Kagan, ‘Regulatory Enforcement’ in DH Rosenbloom and RD Schwartz (eds), Handbook of Regulation and Administrative Law (Marcel Decker 1994) 383; Mascini and Wijk (n 77); and May and Winter (n 13).
113 Compare eg Black (n 11); May and Winter (n 13); Pautz (n 11).
114 May and Winter (n 13).
116 For example, the UK Health and Safety Executive, Enforcement Management Model <www.hse.gov.uk/enforce/emm.pdf> accessed 5 Oct 2010.
117 The Guidelines determine sentences based primarily on two factors: the conduct associated with the offence (the offence conduct, which produces the offence level); and the defendant’s criminal history (the criminal history category). The Sentencing Table in the Guidelines Manual shows the relationship between these two factors; for each pairing of offence level and criminal history category, the Table specifies a sentencing range, in months, within which the court may sentence a defendant. See United States Sentencing Committee, 2010 Federal Sentencing Guidelines Manual and Supplement (2010) <http://www.ussc.gov/Guidelines/2010 guidelines/ManualPDF/Chapter.5.pdf> accessed 5 April 2011, Ch 5.
to individual criteria. The approach has been relied on to structure prosecutorial discretion in that jurisdiction.

### 4.4 Maintaining Legitimacy

Maintaining legitimacy is of particular importance for regulatory agencies even where this conflicts with what might otherwise be judged to be the most appropriate strategy. This is for the simple reason that proposals that cannot gain political acceptance are unlikely to be adopted no matter how effective they may be. As Haines points out, drawing from her own empirical work, the value of regulatory innovations ‘can be understood in light of not only their success at reducing risk . . . but also their capacity to develop and retain legitimacy within the broader political arena’.

Put differently, ‘political needs and community expectations together shape both what is seen as harmful and what is an adequate response’.

Elsewhere she refers to this in terms of the importance of dealing with not merely actuarial or technical risk (for example of an environmental incident) but also with sociocultural or political risk.

The point for present purposes is that legitimacy trumps effectiveness and that implementation strategies must take account of this reality. Unsurprisingly, there is evidence that they already do so, though not necessarily in an overt way. For example, when the Chief Prosecutor of the UK Environment Agency states that ‘occurrences categorised as being of major effect will normally lead to a prosecution’ it is arguable that the agency is classifying the effect in terms of what has already happened and determining their response in that way. If so, then what is being assessed is not future risk but the seriousness of past harm. This is not the purported aim of a risk-based strategy but it does enable the agency to assess its political or reputational risk, prosecuting in circumstances where it is deemed necessary to address this risk.

Similarly, it may well be that legitimacy-sensitive regulators that report to Ministers who are themselves sensitive to industry pressure, are better able to justify their actions if they are proportionate to the seriousness of the violation and culpability of the regulatee, reflect the history of offending, and degree of

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119 ibid 36.


121 Stott (n 47) (emphasis added).

environmental damage – core ingredients of the Criteria Strategy described earlier.

The broader point is an important one and has implications for many of the intervention strategies described above, and not just for Risk-Based Regulation. Consider Responsive Regulation, under which the regulator is expected to intervene initially at the bottom of an enforcement pyramid (assuming virtue on the part of the regulatee) and only escalate to enforcement action if this assumption proves incorrect. There may well be circumstances where the regulator cannot credibly maintain this strategy in the face of threats to its legitimacy (in terms of political risk and/or community pressure). For example, suppose there has been a major incident or ‘near miss’ involving an industrial facility situated close to a residential area. Here there will be considerable pressure to take decisive and immediate action, and to do so in ways which are visible to external audiences—the most obvious being the initiation of a prosecution—with the consequence that the matter will be publicly adjudicated. Even if there is evidence that the regulatee had very limited culpability (their past record being exemplary, the causes of the incident not being reasonably anticipated) then the need to preserve legitimacy will be paramount.

For the regulator who wishes to maintain the trust of a regulatee who is a ‘good apple’, the situation is a challenging one. Their difficulties may be lessened if the relevant compliance and enforcement policy directs them to take advice, persuasion or enforcement action in specified circumstances123 (in which case they can legitimately plead that the decision is out of their hands). They may also seek to preserve their relationship with the regulatee by exercising discretion as to what enforcement action they take (for example, prosecuting for a less serious offence or agreeing on a ‘reasonable’ penalty). By whatever means they try to maintain their relationship with the regulatee, their need to maintain legitimacy in the eyes of the broader community and to minimise political risk will almost certainly prove more compelling.

5. Conclusion

Implementation is ‘the nitty-gritty of environmental regulation’124 and every bit as important as its design. For this reason, it should be given considerable emphasis by environmental agencies. Yet in some respects this is not the case. Sophisticated strategies are now available for targeting enforcement activities and the allocation of scarce resources (the ‘where’ question), but when it

123 See eg UK Environment Agency (n 46) 2. However, in judicial review terms, while public authorities will be expected to follow their policies, they normally are also expected not to follow them blindly.

comes to how best to intervene in the affairs of regulated entities, current practice leaves much to be desired.

An analysis of the compliance and enforcement policies of a sample of regulatory agencies reveals a considerable diversity of approaches. Some of them (as in the case of Criteria Strategies) are incoherent and provide almost unconstrained discretion to field officers. Others (particularly some hybrids) are internally inconsistent and/or underdeveloped in that they do not fully embrace a particular strategy. Nor do regulatory agencies appear to have given much attention to empirical findings regarding what sorts of strategies work and why, and even less to the available academic literature on the subject. To say the least, this is unfortunate in terms of its implications for environmental outcomes.

This article has sought to advance the debate as to how to intervene by arguing, contrary to conventional wisdom, that rather than seeking to identify a single intervention strategy, what is needed is to consciously apply different intervention strategies according to their suitability to particular regulatory contexts. Different types of regulatees confront different external pressures and have different skills, capabilities and motivations. The environmental risks posed by different operations are also intrinsically different. Accordingly, best practice may mean applying different intervention strategies in different circumstances.

This also embraces (as illustrated in Section 4.2) the development of hybrid approaches incorporating two or more strategies, to invoke the strengths of one strategy while compensating for its weaknesses by integrating it with another complementary strategy. However, not all combinations are complementary. Some lead to incoherence and inconsistency, and a number of hybrids adopted by sample agencies fall into precisely this category. Hybrids can only represent best practice where their structure ensures the complementarity of their different components and the coherence of the overall design.

Finally, it is important to recognise the practical constraints in terms of developing best practice intervention strategies. In particular, there is often a tension between effectiveness and legitimacy. In the necessary trade-off between these criteria, it was argued that the need for the regulator to maintain its legitimacy is paramount. Accordingly, there will be occasions where the rigorous application of a particular strategy, such as Risk-Based or Responsive Regulation, must be compromised to accommodate political risk and the expectations of communities. Even so, there is an opportunity to advance beyond the status quo in most jurisdictions and to markedly improve environmental outcomes by developing and implementing more nuanced and context specific intervention strategies.