

THE “ENVIRONMENTAL BOTTOM LINE” AND ECONOMIC EFFICIENCY

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ABSTRACT

Recently the Supreme Court applied the “environmental bottom line” criterion under Part 2 of the Resource Management Act in its judgment on the King Salmon appeal, rather than the well-established “overall broad judgment” approach. While the latter (suitably applied) provides the framework needed to assess economic efficiency, I suggest that the decision nonetheless could promote efficiency. The Court, drawing on the New Zealand Coastal Policy Statement 2010, implied that the costs of the adverse environmental effects were so high as to exceed any plausible benefits from development. Hence, in this case the two criteria need not be incompatible.

I. INTRODUCTION

The sole purpose of the *Resource Management Act 1991* (RMA), set out in Part 2, is “to promote the sustainable management of natural and physical resources”. In the early jurisprudence this objective was interpreted in two different ways: as providing a protective “environmental bottom line” that proposed developments could not breach; or as requiring an “overall broad judgment” in which developments were permitted if their beneficial effects were expected to outweigh their adverse environmental effects.¹ The contrast between these two approaches is captured in *Campbell v Southland District Council*, where in 1994 the Planning Tribunal stated:²

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1 Harris suggested that this was inevitable given the complexity of, and loose wording in, the s 5(2) definition of sustainable management. See: “Sustainable Management as an Express Purpose of Environmental Legislation: The New Zealand Attempt”, *Otago Law Review*, vol. 8/1, 1993, pp. 51-76. The early diversity of views amongst commentators and the courts is discussed in: Gordon Smith, “The Resource Management Act 1991: ‘A Biophysical Bottom Line’ vs ‘A More Liberal Regime’: A Dichotomy?” *Canterbury Law Review*, vol. 6/3, 1997, pp. 499-538.

2 *Campbell v Southland District Council* W114/94, 14 December 1994 (PT), p. 46.

There are dangers in assuming that sustainable management is about a trade off between perceived benefits against adverse effects. Sustainable management is not necessarily a balancing exercise. Section 5(2)(a)(b)(c) provisions have to be met before the purpose of sustainable management is achieved.

However, by 1999, Milne was able to report that the “Environment Court has now settled upon the *overall judgment* approach...”³ In 2012 the High Court (Priestley J) in *Ngati Ruahine*, when considering Part 2, stated:⁴

The job of the Environment Court involves exercising a broad evaluative judgment on whether a proposal promotes sustainable management of natural and physical resources. The judgment involves weighing competing considerations.

Likewise, in the 2013 decision in *King Salmon*, the Board of Inquiry stated:⁵

It is well accepted that applying Section 5 involves an overall broad judgment of whether a proposal would promote the sustainable management of natural and physical resources. The RMA has a single purpose. It also allows for the balancing of conflicting considerations in terms of their relative significance or proportion in the final outcome. [*footnote omitted*]

Recently, the central role played by the “overall broad judgment” approach has been called into question by the judgment of the Supreme Court on an appeal of the *King Salmon* decision.⁶ The Court indicated that decision makers may not turn to Part 2, and apply the “overall broad judgment” approach, when making decisions on planning applications relating to matters already fully covered by prescriptive statements in the *New Zealand Coastal Policy Statement*. These statements reflect a “protective element” within the concept of sustainable management, and thereby, in effect, set an “environmental bottom line”.

The purpose of this note is to explore the difference between the two contrasting approaches to the interpretation of Part 2 using an economic

³ Jim Milne “Sustainable Management” in *DSL Environmental Handbook, Volume 1*, Thomson Brookers, June 1999 (italics in the original). See also: Bret Birdsong *Adjudicating Sustainability: New Zealand’s Environment Court and the Resource Management Act* Ian Axford (New Zealand) Fellowship in Public Policy, October 1998.

⁴ *Ngati Ruahine v Bay of Plenty Regional Council* [2012] NZHC 2407 [55].

⁵ Board of Inquiry, *New Zealand King Salmon - Final Report and Decision* (2013) at 53.

⁶ *Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited* [2014] NZSC 38 [17 April 2014].

efficiency framework. Recently I have argued that the application of the "overall broad judgment" approach to large development proposals under Part 2 of the RMA, although potentially compatible with what is needed to generate economically efficient outcomes, has not produced such outcomes because some relevant and important effects have been excluded from the evaluations.⁷ An important question raised by the Supreme Court's *King Salmon* judgment is whether the new caveat placed on the application of the "environmental bottom line" approach means that, once again, economic efficiency considerations are being overlooked or under-played in the interpretation of Part 2.

II. AN ECONOMIC FRAMEWORK

Economic efficiency is concerned about the allocation of limited resources between competing uses in order to promote economic welfare. Well-functioning markets, in which demand meets supply and prices are determined, can normally be relied upon to achieve this outcome. However, the market mechanism becomes less effective when consumption (on the demand side) or production (on the supply side) generate "externalities", that is, they produce as by-products benefits or costs for other parties. It is the presence of these externalities, and in particular of the costs, that provides the basic rationale for intervention in free markets by the RMA on resource management and environmental sustainability grounds. The High Court in *Lammermoor* stated:⁸

We think the correct interpretation of the RMA is that it is up to individuals and groups of individuals to decide what they want to do with their resources (where those resources are in private hands). However, that right is tempered by the fact that private use of resources can impose adverse effects on neighbours and upon the wider community. Hence the justification for the national, regional and district planning instruments, and the associated concept of resource consents, all of which lie at the heart of the RMA.

For example, if I refurbish my run-down house, I not only improve its value, but probably also the values of adjacent houses in the street; their owners enjoy a positive externality (or benefit) from my efforts, without cost

7 M. Pickford "Economic Efficiency and the Resource Management Act" *New Zealand Journal of Environmental Law*, vol. 18, 2014, pp. 149-71.

8 *Meridian Energy Limited V Central Otago District Council And Ors* HC DUN CIV 2009 412 000980 [16 August 2010] Chisholm & Fogarty JJ. at 515.

to themselves. Likewise, if a factory pours its waste into a river, the pollution reduces the value of the river for recreational uses; swimmers and anglers experience a negative externality (or cost). The factory benefits from a cheap form of waste disposal, and has no incentive (in the absence, say, of pollution charging, or of conditions imposed by a resource consent) to take into account the costs it imposes on others.

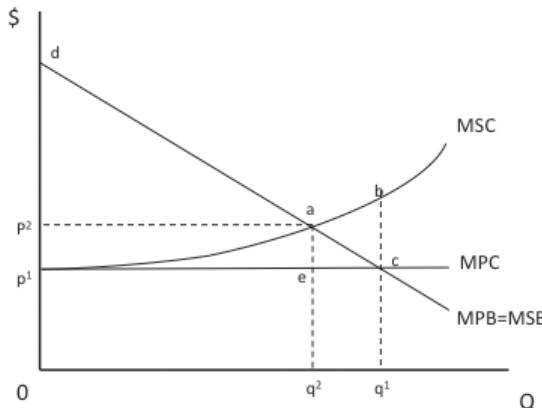
A simplified model widely used in economics to explore the impact on economic efficiency of externalities, and the use of regulation to improve efficiency, such as through the RMA, is shown in Figure 1.⁹ The graph depicts a competitive market for a particular good. Costs and prices are scaled in dollars on the vertical axis, and units of output per year (Q) are measured on the horizontal axis. The demand curve for the product is shown by the downward-sloping MPB line. Each point on the line indicates the price that a buyer would be prepared to pay for the next unit to be produced. It therefore shows the “value” in money terms, or marginal private benefit (MPB), attached to each of the units. If there are no consumption externalities, whether positive or negative, the MPB line is also the marginal social benefit (MSB) line, showing how society as a whole values successive units of the good.

The cost to businesses of producing successive units of the good is shown by the marginal private cost (MPC) curve. The line is horizontal at p' dollars on the assumption that the additional (or marginal) cost remains the same for each unit produced. An unregulated, competitive industry would maximise profits by expanding production so long as the price for each unit sold exceeds the cost of production, that is, so long as the MPB curve is higher than the MPC curve. The industry would reach a profit-maximising equilibrium where $MPB = MPC$, at an output of q' units and a price of p' .

This equilibrium would, in the absence of externalities, also maximise social welfare. Social welfare is measured by the difference between the total social value of the units of the good produced – measured by “willingness to pay”, and represented geometrically by the area $Odcq'$ – and the total social cost of producing those units, shown by the area $Op'cq'$. Social welfare is maximised when the social value exceeds the social cost by the largest amount, here measured by the area $p'dc$. Production of fewer, or more, than q' units would reduce this area, and therefore reduce social welfare.

⁹ See, for example: D. Begg, S. Fischer and R. Dornbusch, *Economics* (2nd ed, McGraw-Hill, London, 1987) chap. 14; J. R. Kahn, *The Economic Approach to Environmental and Natural Resources* (3rd ed, South-Western, Mason, Ohio, 2005) chap. 2.

Figure 1: An economic model of a market, showing the impact of externalities, and the use of regulation to improve efficiency



Now suppose that production generates a negative externality, like the river pollution example mentioned. In Figure 1 the cost per unit of this externality is added to the production costs to give the marginal social cost (MSC) line; the cost to society of producing the good is made up of both production costs to the businesses and the pollution externality cost imposed on others.¹⁰ At low production levels the amount of waste generated may not be large enough to have much impact on the quality of the river water, and so the additional social cost per unit is likely to be zero or small. But, as production expands, the ability of the river to absorb more waste diminishes, and as a consequence the externality cost imposed by each extra unit of production increases. The MSC line therefore slopes upwards as production increases.

Because of the negative externality generated by production, the privately optimal (profit-maximising) level of q' units is no longer also the socially optimal one. The latter is found at the point where the MSB line intersects with the MSC line, at the smaller output of q^2 (and at the higher price p^2). At this level of output, the total social benefit generated, shown by the area $0daq^2$, exceeds the total social costs of production represented by the area $0p'da$. If the market were left unregulated, and the industry continued to produce at q' units, then resource allocation would be socially inefficient. This is because the units between q^2 and q' cost more to produce in social terms – shown by the ab segment of the

¹⁰ The essence of my previous critique of the application of the "overall broad judgment" approach to applying Part 2 on cases involving large projects is that the so-called "private" production costs are typically omitted from the balancing exercise. From an economic perspective, this omission biases decisions in favour of acceptance, and does not promote either economic efficiency or environmental protection. See: Pickford, above n 7.

MSC line – than their value in consumption, shown by the *ac* segment of the MSB line. Society would therefore experience a loss in dollar terms measured by the size of the area *abc*. This loss provides the economic rationale for some sort of regulatory intervention to improve economic efficiency.¹¹

The analysis in Figure 1, although abstract, is important in at least two respects. Firstly, when production (or other human activity) has adverse effects on the environment, it is likely to lead to sub-optimal levels of economic efficiency in the absence of effective regulation.¹² Secondly, from an economic efficiency perspective, there is a trade-off between the benefits from economic activity and the protection of the environment, and that the social welfare maximising solution is likely to involve tolerating some degree of adverse environmental effects. For example, at the production level q^1 the adverse effect on the environment is represented by the area p^1ae .

Figure 1 can be reinterpreted as representing a situation typical in an RMA setting. A firm wants to set up a new development with the costs and benefits specified in the figure.¹³ Its aim is to maximise its private profits by producing q^1 units of output per year, without regard to the adverse environmental costs. From an economic efficiency perspective, one would wish the application to be approved, subject to conditions that would require the firm to reduce its output to the socially efficient level of q^2 . Only the “overall broad judgment” approach would be capable of achieving this outcome, because it could, at least in principle, balance the benefits and costs of the economic activity proposed in order to locate the optimal level of production.¹⁴

Suppose that the “environmental bottom line” approach were applied instead. This approach focuses on protecting the environment from adverse

¹¹ Of course, the costs involved in regulating also have to be taken into account. Note that one possible policy response to this pollution externality problem would be to impose a “pollution tax” of p^1p^2 on the industry. This would serve to raise its costs, and therefore the MPC line, to p^2 per unit, thereby encouraging the industry to reduce production to the new profit-maximising level of q^2 . This sort of approach underpins emission trading schemes; it also provides a financial incentive for polluters to find ways to reduce their pollution in order to reduce the pollution tax burden.

¹² Peter Fuller notes that “economic development will always have some environmental consequences.” See: “The Resource Management Act 1991; ‘An overall broad Judgment’” (2003) 7 *New Zealand Journal of Environmental Law* 243 at 249. See also: Harris, above n 1 at 68.

¹³ For simplicity, I assume that the firm would be constrained to operate as if it were in a competitive setting.

¹⁴ In practice, any attempt to optimise is likely to be limited by various considerations: the benefits and costs may be difficult to quantify; information required may not be available; and RMA decisions typically focus on the application made, rather than on an application that may be adjusted to ensure that it produces an “optimal” outcome. On the last point, as Figure 1 is drawn, the proposed development would improve economic efficiency to the extent that total social benefit of $Odcq^1$ exceeds total social cost of Op^1bq^1 , and might therefore be approved, even though this outcome would not be the most efficient (and environmentally appropriate) one. That said, the imposition of consent conditions may have the effect of shifting the outcome towards the optimal one.

effects of development, although possibly subject to certain qualifications: whether the mitigation provision in s. 5(2)(c) allows for some adverse effects;¹⁵ and whether the courts tended to apply this approach only when the adverse effects were "significant".¹⁶ In general, though, environmental costs would not be tolerated – "Section 5(2)(a)(b)(c) provisions have to be met before the purpose of sustainable management is achieved"¹⁷ – suggesting that the application could be refused resource consent. If that were the case the outcome would be socially inefficient: by blocking the proposed development, the decision would impose an economic loss on the economy measured by the net social benefit foregone. Society would be made worse off by the loss of a net benefit up to a maximum of $p'da$.

The preceding analysis suggests that, in principle, the "overall broad judgment" approach to implementing Part 2 is likely (when applied in the economically appropriate way) to be consistent with promoting economic efficiency in resource allocation, and that the "environmental bottom line" approach is not. I now turn to consider the *King Salmon* case, where a modified version of the latter approach was applied by the Supreme Court. I find, perhaps surprisingly, that this more limited form of the "environmental bottom line" approach may not, in certain circumstances, be inconsistent with the promotion of economic efficiency.

III. THE KING SALMON DECISION

King Salmon, a salmon farmer in the Marlborough Sounds, wished to establish nine more salmon farms, in addition to the six that it already operated. At eight of the nine proposed sites it sought to change the current activity status of marine farming from prohibited to discretionary by means of a change in the Marlborough Sounds Resource Management Plan, at the same time lodging the required resource consent applications. At the ninth site, at White Horse Rock, only a resource consent was sought, as marine farming was a discretionary activity in that area.¹⁸

The Board of Inquiry found that, although parts of the proposed plan changes were incompatible with policies in the *New Zealand Coastal Policy Statement 2010* (NZCPS), it approved some by applying the "overall broad judgment" approach pursuant to Part 2 of the RMA. Four of the eight plan changes were approved, with resource consents being granted for those sites,

15 Harris, above n 1 at 64-65.

16 Smith, above n 1 at 521 and 537.

17 *Campbell v Southland District Council*, above n 2.

18 This outline of the case draws upon the following very helpful summary: Anderson Lloyd, "Have the Goal Posts Shifted? Implications of the Supreme Court King Salmon Decision" <www.andersonlloyd.co.nz>.

subject to detailed consent conditions. The White Horse Rock application was declined.¹⁹

The Environmental Defence Society (EDS) and Sustain Our Sounds (SOS) appealed the Board's decision to the High Court, which dismissed both appeals. Both sought, and were granted, leave to appeal directly to the Supreme Court. EDS challenged only the Papatua plan change, and focused on the protection of areas of outstanding natural landscape in the coastal environment. SOS focused primarily on water quality concerns and challenged all four plan changes. I concentrate on the EDS appeal here.

In considering whether to grant King Salmon's plan change application for Papatua, the Board was required to "give effect to" the NZCPS. The Board decided to grant the plan change, despite accepting that: Papatua was an area of outstanding natural character and landscape; the proposed salmon farm would have high adverse effects; and that policies 13(1)(a) and 15(a) of the NZCPS would not be complied with. The Board considered that the two policies had to be given considerable weight, but that they were not determinative. Rather, the Board said that it was required to reach an "overall judgment" on the application by applying the principles contained in Part 2 of the RMA, when it found that parts of the proposal achieved the RMA's purpose.

EDS argued that the Board's analysis was incorrect as a matter of law: its finding that policies 13(1)(a) and 15(a) would not be given effect to if the plan change for Papatua were granted meant that the application had to be refused. These policies provide that, when an area of the coastal environment has "outstanding natural character", or when it has "outstanding natural features and outstanding natural landscapes", both of which applied to Papatua, adverse effects of activities are to be avoided. EDS argued that these words created an environmental bottom line in this case.

In its judgment, the Supreme Court emphasised the central role of the NZCPS in the statutory framework,²⁰ and its statutory purpose of setting out policies to achieve the RMA's purpose:²¹

National policy statements such as the NZCPS allow ministers a measure of control over decisions by regional and district councils. Accordingly, it is difficult to see why the RMA would require regional councils, as a matter of course, to go beyond the NZCPS, and back to pt 2, when formulating or changing a regional coastal plan which must give effect to the NZCPS. The danger of such an approach is that pt 2 may be seen as "trumping" the NZCPS rather than the NZCPS being the mechanism by which pt 2 is given effect in relation to the coastal environment.

19 Board of Inquiry, above n 5.

20 *Environmental Defence Society Incorporated*, above n 6, [33] at 19.

21 At [86].

As policies 13(1)(a) and (b) and 15(a) and (b) accorded Papatua the status of an area of outstanding natural character and landscape, it found that they provided:²²

. . . something in the nature of a bottom line. We consider that this is consistent with the definition of sustainable management in s 5(2), which, as we have said, contemplates protection as well as use and development. . .

Accordingly, it allowed the appeal in relation to the Papatua plan change, accepting the submission on behalf of EDS that:²³

. . . given the Board's findings in relation to policies 13(1)(a) and 15(a), the plan change should not have been granted. These are strongly worded directives in policies that have been carefully crafted and which have undergone an intensive process of evaluation and public consultation.

The Court in effect stated that decision-makers are not to apply the "overall broad judgment" approach pursuant to Part 2 when making decisions on planning applications relating to matters already fully covered by prescriptive statements in the NZCPS (and, by implication, in other national policy statements), at least when they relate to areas of outstanding natural character and landscape.²⁴ These prescriptive statements set "something in the nature of a bottom line", which high-level planning documents like the NZCPS are entitled to do, and which forms part of the concept of sustainable management.

The Supreme Court's decision would seem to narrow the application of the "overall broad judgment" approach under Part 2. From an economic perspective, this prompts the question: is the "environmental bottom line" concept as applied by the Supreme Court likely to be consistent with economic efficiency?

A stylised model of the *King Salmon* proposal is shown in Figure 2. The structure of the model is similar to that in Figure 1, but differs in two respects. Firstly, the demand or MSB line is horizontal, because much of the product would be exported at the world price, and in a competitive market, the domestic price would be the same as the world price (after allowing for differences in delivery costs).²⁵

²² At [132] 60.

²³ At [153] 69.

²⁴ The only qualification it provided is that there are no allegations of invalidity, incomplete coverage or uncertainty of meaning in the relevant policy document. At [88] 42.

²⁵ For a generalised model illustrating this, see: M. Pickford, *The Economics of Markets: A New Zealand Perspective*, Palmerston North: Dunmore Press, 1994 at 385-87.

Secondly, the outputs and costs of the four farms that received Board approval are represented by steps A, B, C and D, arranged in ascending order of marginal social cost, in the solid part of the MSC1 line. The private marginal production costs (MPC) are assumed to be the same for all farms;²⁶ differences in their marginal social costs arise from differences in the environmental costs that they individually would impose. Farm E, and other higher-cost farms that are not illustrated, represent those not approved by the Board. In Figure 2, they have MSCs exceeding their MSB, rendering them socially inefficient. These assumptions set up the outcome of the BOI decision in Figure 2 *as if* it had applied the economic efficiency criterion discussed above.

Suppose that farm D is the farm proposed at Papatua. In the BOI's decision this gained approval on the application of the "broad overall judgment" approach. Figure 2 has been constructed so that farm D also passes muster, but on the basis that the social benefit of the proposal – represented by the area q^3jkq^4 – exceeds the social cost of q^3ghq^4 . On these valuations of benefits and costs, farm D would be socially efficient.²⁷

How, then, does the Supreme Court's decision rate in economic efficiency terms? Firstly, the notion of the "environmental bottom line" it employs differs from the 1990s version. Then, in broad terms, it seems that all of s. 5(a), (b) and (c) had to be met – they collectively imposed a "bottom line" – for an application to be approved. Any adverse (possibly limited to any significant adverse) environmental effects had to be avoided. In contrast, the Supreme Court judgment is focused on avoiding adverse effects only in an area of outstanding natural character and landscape, not in other areas where the natural character and landscape is less than outstanding:²⁸

We have concluded that the Board, having found that the proposed salmon farm at Papatua would have had significant adverse effects on the area's outstanding natural attributes, should have declined King Salmon's application in accordance with policies 13(1)(a) and 15(a) of the NZCPS.

26 It seems likely that the private costs of the farms varied, with the highest cost farm being just viable at the prevailing price for the product, and the next possible site being higher cost again and therefore not viable, that is, that the application covered all of the sites that were potentially viable from a private, profit-making perspective.

27 The Board's overall judgment was probably based on comparing the economic benefits of the activity to the adverse environmental effects, which would have been a more lenient standard than an economic efficiency one, which would have included the private costs of setting up and running the farm. See: Pickford, above n 7. Hence, it is uncertain as to whether Farm D (Papatua) would have passed the application of the economic efficiency test, as assumed in Figure 2.

28 At [157] 70.

From an economic perspective, the heart of the issue lies in the valuation implicitly placed upon the preservation of areas of outstanding natural character and landscape in the NZCPS. The Supreme Court, drawing on the prescriptions in policies 13(1)(a) and 15(a), can be interpreted to have placed a much higher value than the Board on the preservation of Papatua's natural character and landscape. The Court also considered that greater weight ought to be given to the word "avoid", in terms of avoiding adverse effects in s.5(2) (c) and in the relevant policies in the NZCPS, when employing the "bottom line" approach:²⁹

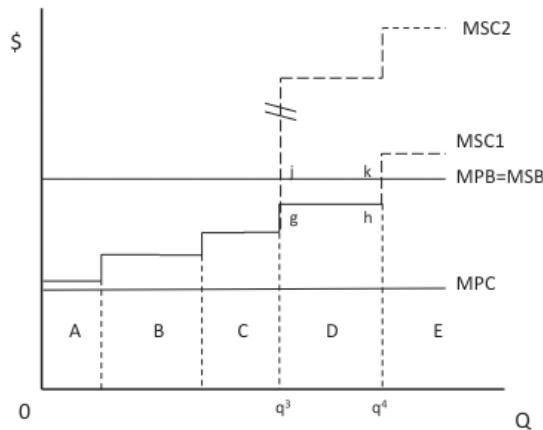
. . . whether "avoid" (in the sense of "not allow" or "prevent the occurrence of") bites depends upon whether the "overall judgment" approach or the "environmental bottom line" approach is adopted. Under the "overall judgment" approach, a policy direction to "avoid" adverse effects is simply one of a number of relevant factors to be considered by the decision maker, albeit that it may be entitled to great weight; under the "environmental bottom line" approach, it has greater force.

The difference between the Supreme Court and the Board can be illustrated in Figure 2. Here, the height of step D on the MSC1 line reflects the marginal social cost of developing the Papatua site as implicitly valued by the Board. The cost from the Supreme Court's perspective seems to be much higher, and the step should be raised accordingly. This adjustment is shown in the new, dashed portion of the MSC line (labelled MSC2), in which the cost of farm D is well above the MSB line, indicating that its development would no longer be socially efficient.³⁰ Economic efficiency would now be maximised if only three farms – A, B and C – were allowed to proceed.

29 *Environmental Defence Society Incorporated*, above n 6, at [97] 42.

30 Strictly, the steps would be rearranged into ascending order based on marginal social costs, so farm D would shuffle to the right of farm E, which would continue to be non-economic.

Figure 2: An economic perspective on the efficiency of the King Salmon proposal and decisions



My analysis suggests that the new, more limited, form of the “environmental bottom line” approach used by the Supreme Court need not be inconsistent with the “overall broad judgment approach”, as the earlier assessment might suggest. The fact that the Court stated that it is unnecessary to go to Part 2, and to conduct a weighing exercise, need not argue to the contrary. Rather, the implicit valuation put by the Court on environmental protection in this case is so great that the adverse effects of the proposed development could be expected comfortably to exceed any plausible benefits. The use of the “bottom line” approach can then be seen as providing a shortcut to the alternative Part 2 weighing process that would have yielded exactly the same decision. Both are capable of producing economically efficient outcomes, providing all of the economically relevant effects are included, although the scope for using the “bottom line” approach is limited to cases involving high adverse effects.

IV. CONCLUSIONS

Economic efficiency is concerned with the allocation of limited resources to best promote economic (or social) welfare. When assessing a proposed development, an economic efficiency approach would trade off the benefits against the costs, much like the RMA’s “overall broad judgment” approach does, except that all of the costs, including the production costs as well as the adverse environmental effects, would be incorporated. Alternatively, if the “environmental bottom line” approach as originally conceived were

applied instead – where essentially all adverse environmental effects were to be avoided – then any proposed development generating such effects, even on a modest scale, could be blocked. The blocking of developments that would generate more benefits than costs, and thereby enhance economic efficiency, would not promote economic welfare.

In the *King Salmon* decision the Supreme Court has adopted a different “environmental bottom line” concept. One of the farms was proposed for a location with outstanding natural attributes, in which developments creating adverse effects – which would have been the case with the farm – were contrary to policies enshrined in the NZCPS. These policies were taken to create a “bottom line” under which such developments were to be blocked. Its decision overturned that of the Board, which had favoured the development on the basis of the application of the “overall broad judgment” approach.

I have suggested that in principle the Court’s decision can be reconciled with the concept of economic efficiency. From an economic perspective, the Court could be characterised as attributing a high cost to the adverse environmental effects caused by development, so high in fact, that it would exceed any plausible benefits, without the need for a detailed identification and evaluation of either. In this view, the application of this “bottom line” concept would not be incompatible with the “overall broad judgment” approach; rather, it can be seen as providing a short-cut to the economically efficient outcome without the need to go through the lengthy and contentious weighing process. However, it seems unlikely that many cases would involve adverse environmental effects of sufficient magnitude to allow decision-makers to rely upon this short-cut process to reach economically efficient outcomes.