

Regulatory Impact Statement

Marlborough Sounds Salmon Farms: Meeting environmental, social, cultural and economic objectives

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for Primary Industries (MPI).

It provides an analysis of options to address unacceptable adverse effects on the benthic environment of some existing salmon farms while providing for social and cultural benefits and maintaining or increasing economic benefits.

The analysis is in two parts:

- Part 1. Implications of addressing adverse effects of salmon farming on the benthic environment at the existing sites ('status quo')
- Part 2: Implications of options to enable relocation to reduce adverse effects of salmon farming on the benthic environment ('relocation options').

The analysis draws on feedback from the Marlborough Salmon Working Group (**Working Group**), which considered options to implement new Benthic Guidelines for the management of salmon farming, and extensive technical work commissioned by MPI on the potential environmental, social, cultural and economic impacts of farming salmon at potential relocation sites.

The table below sets out key constraints and caveats on the analysis that decision-makers should be aware of:

<i>Key gaps</i>	<ul style="list-style-type: none">• The magnitude and extent of benefits and costs will depend on the number and location of sites relocated, if relocation proceeds.• The nature and extent of community concern with the proposal has not been fully tested, and despite extensive engagement with the Marlborough District Council (MDC) and Marlborough Salmon Working Group the proposal is still likely to be controversial.
<i>Assumptions</i>	<ul style="list-style-type: none">• At least one suitable relocation site can be progressed, following consultation with the public and iwi authorities.
<i>Dependencies</i>	<ul style="list-style-type: none">• Support of the Working Group is desirable. Members support consultation on 3 sites, but are divided about 3 other sites.• MDC, Department of Conservation (DOC) and Ministry for the Environment (MfE) support the proposal going out to public consultation with priority sites for relocation indicated.
<i>Significant constraints, caveats or uncertainties</i>	<ul style="list-style-type: none">• Key conclusions in the analysis about the timeframes and costs of different options (Part 2) are based on officials' best estimates. However, these are estimates only, as the actual timeframes and costs are unknowable.

concerning the analysis	<ul style="list-style-type: none"> This will be the first time the regulation-making power in ss360A-C of the Resource Management Act (RMA) has been used.
Further work required before any policy decisions could be implemented	<p>If regulations are to be used, the following further work is required:</p> <ul style="list-style-type: none"> Implementation of a consultation process approved by the Minister that gives the public and iwi authorities adequate time and opportunity to comment on the proposed regulations. Preparation of a report and recommendation on the comments received. Public notification of the report and recommendation. Preparation of an evaluation report in accordance with s32 of the RMA. Consultation with MDC, the Minister of Conservation and other relevant Ministers. Analysis and advice for the Minister of Aquaculture to provide assurance that all requirements under ss360A and 360B of the RMA have been met prior to making a decision on whether to recommend regulations. Drafting of regulations by the Parliamentary Counsel Office.

Luke Southorn, Director Economic Development and Partnerships



1 December 2016

Executive summary

- MPI initially, and then a Working Group of government, iwi, community and industry stakeholders, have considered options to address the adverse effects on the benthic environment from some salmon farms in the Marlborough Sounds, while maintaining the economic, social and cultural benefits from the industry. The Government's policy for aquaculture aims to support well-planned and sustainable aquaculture growth, and to improve productivity while reducing environmental impact. New Zealand King Salmon Company Ltd (**King Salmon**) is currently the only company farming salmon in the Sounds.
- This analysis is in two parts:
 - Part 1. Implications of addressing adverse effects of salmon farming on the benthic environment at existing lower-flow sites ('status quo')
 - Part 2: Implications of options to enable relocation to address adverse effects of salmon farming on the benthic environment ('relocation options')
- The objectives against which the status quo and relocation options are assessed is to address adverse effects on the environment in a way which:
 - Improves the environmental performance of salmon farming in the Marlborough Sounds by ensuring adoption and implementation of the benthic *Best Management*

Practice Guidelines for Salmon Farming in the Marlborough Sounds ('the **Benthic Guidelines**');

- ii. Maintains or increases the social and cultural outcomes of salmon farming in Marlborough;
 - iii. Maintains or increases the economic benefits of salmon farming in Marlborough;
 - iv. Ensures no overall increase in the total surface structure area of salmon farms; and
 - v. In the case of relocation, can be achieved in a cost-effective and timely way.
4. Part 1 of the analysis concludes that implementing the Benthic Guidelines at the existing lower-flow salmon farm sites will reduce the benthic impacts of salmon farming, will not increase the total surface structure area of salmon farms, but will significantly reduce productivity. This would reduce economic returns and cause job losses. Implementation at the existing sites would not meet the objectives.
 5. Part 2 of the analysis concludes that relocating salmon farms to other identified, higher flow sites would reduce the benthic impacts of salmon farming, is expected to increase economic returns and employment, and could be achieved without increasing the total surface structure area of salmon farming. Consultation needs to be undertaken to ascertain whether there may be other adverse environmental, social and cultural effects which may mean individual sites are not appropriate. This approach could meet the objectives, subject to consultation.
 6. Enabling relocation of one or more sites requires a change to the Marlborough Sounds Resource Management Plan because:
 - i. Five out of six of the potential relocation sites are fully or partially within Coastal Marine Zone 1 where new aquaculture is prohibited because of its potential impacts on significant landscape, natural character, navigation, recreational or amenity values, and
 - ii. A rules framework is needed to ensure that any relocation occurs without increasing the total surface structure area of salmon farms.
 7. Three options are evaluated to change the plan and obtain the necessary coastal permits:
 - i. Regulations made under ss360A-C of the RMA to amend the plan, followed by applications to MDC for coastal permits
 - ii. Private request for concurrent plan change and coastal permits considered by the Environmental Protection Authority (EPA)
 - iii. Private request for concurrent plan change and coastal permits, considered by MDC.
 8. All of the relocation options can meet the environmental, social, cultural and economic objectives, while ensuring there is no overall increase in the surface structure area of salmon farms. The key differences arise in relation to timeframes and the scale and incidence of costs.
 - Option (i) has the lowest costs but potentially longer timeframes, and costs and legal risks are borne principally by the Crown for the plan change and by King Salmon for the coastal permits.

- Option (ii) has the highest costs but potentially shortest timeframes, and costs and legal risks are borne principally by King Salmon.
 - Option (iii) has similar costs to Option (ii) but longer timeframes, and costs are borne principally by MDC and King Salmon with legal risks borne by King Salmon.
9. It is important to note that this part of the analysis relies on estimates and assumptions about the likely timeframes and costs. Option (i) is the only regulatory option under consideration and is MDC's preferred option to date.

Problem definition

10. Salmon have been farmed in the Marlborough Sounds for more than 30 years and the area produces approximately 70% of New Zealand's farmed production. King Salmon is currently the only company farming salmon in the Sounds, with 11 consented sites.¹ Some of these sites were originally licenced under the Marine Farming Act 1971, however all farms now hold either deemed coastal permits or coastal permits under the RMA.
11. The Marlborough Sounds are divided into three Coastal Marine Zones (CMZs) under the Marlborough Sounds Resource Management Plan.
- CMZ1, which makes up about 80% of the Sounds, recognises the natural landscape and environment which contribute to the region's culture, heritage and tourism. CMZ1 prohibits new aquaculture. There are, however, 19 marine farms consented in CMZ1, which were approved before CMZ1 became operative in 2003.
 - CMZ2 recognises the productive value of aquaculture to the region, and allows applications to be made for marine farming under a range of activity statuses, depending on factors such as when the farm was originally consented, and its location relative to the shore. There are approximately 558 marine farms in CMZ2.
 - CMZ3 was created specifically for the three salmon farms approved by the EPA in 2013, which are the only farms in the zone. These sites were previously CMZ1. Salmon farming within CMZ3 is a discretionary activity, provided that it complies with standards specified in the rule.
12. Six² of King Salmon's 11 consented farm sites are located in lower flow areas that are not ideal for modern salmon farming practices, from both an environmental effects and a farm productivity perspective. Five of the lower flow salmon farming sites are in CMZ2, while one is in CMZ1.
13. Farming in lower flow areas results in more contaminants accumulating on the seafloor, nutrient enrichment, lower production, compromised salmon health, and increased

¹ There are 10 other consented marine farms in Marlborough with salmon listed as an authorised species able to be farmed under the coastal permits. One site, operated by Ngai Tahu Seafood Resources Ltd, currently farms snapper in Beatrix Bay. The nine remaining sites have not farmed salmon (or other finfish) within the last 20 years, and do not hold current valid discharge consents required to undertake salmon farming activities.

² Two sites are located in Queen Charlotte Sound, two in outer Pelorus Sound, and two in Crail Bay. The Crail Bay sites, while consented, are not currently operational, and are not likely to be usable for salmon farming.

biosecurity risks. Monitoring of the benthic environment below these farms suggests a level of enrichment that is unlikely to comply with new Benthic Guidelines.³

14. MPI has undertaken a constraints mapping process (using environmental, bio-physical, hydrological, fisheries and RMA constraints) to identify potential aquaculture space. This process has demonstrated that suitable space for salmon farming in Marlborough is extremely limited and much of it is within CMZ1 areas where aquaculture is currently prohibited.
15. In early 2015 King Salmon approached Government and MDC expressing a desire to relocate farms as a means to meet the Benthic Guidelines while maintaining productivity. In March 2015 Natural Resources Sector Business Growth Agenda (BGA) Ministers directed MPI and MfE to investigate the potential use of the Ministerial regulation-making power (ss360A-C RMA) to enable salmon growth in the Marlborough Sounds. In May 2016 the Natural Resources BGA Ministers agreed that MPI, MfE and DOC should establish a forum for targeted stakeholder engagement.

Objectives

16. The objectives against which Parts 1 and 2 are assessed is to address adverse effects on the environment in a way which:
 - i. Improves environmental performance of salmon farming in the Marlborough Sounds by ensuring adoption and implementation of the Benthic Guidelines
 - ii. Maintains or improves the social and cultural outcomes of salmon farming in Marlborough
 - iii. Maintains or increases the economic benefits of salmon farming in Marlborough
 - iv. Ensures no overall increase in the total surface structure area of salmon farms, and
 - v. In the case of relocation, can be achieved in a cost-effective and timely way.

Part 1. Implementing the Benthic Guidelines at existing sites ('status quo')

17. A Working Group of government, iwi, community and industry stakeholders considered options for implementing the Benthic Guidelines at the existing sites, and concluded there is only one option currently available: reducing the level of production. This would reduce food and waste discharges to the seabed so that the standards in the Benthic Guidelines can be met.
18. If the Benthic Guidelines are implemented at existing sites, no action would be taken by central government. Instead the Benthic Guidelines would be implemented voluntarily or through processes run by MDC to review consent conditions or establish new conditions during re-consenting of the farms.
19. Under this approach:
 - i. It is likely the MDC would review the existing consent conditions and impose requirements to meet the Benthic Guidelines (if King Salmon does not voluntarily implement the Benthic Guidelines);

³ The Benthic Guidelines were developed with input from the community, science experts and industry. Their primary purpose is to provide consistent and clear requirements for benthic monitoring and management of existing salmon farms.

- ii. Consents for the lower-flow sites will expire in 2021 (1 site) and 2024 (5 sites);
- iii. Any new consents are likely to be issued with conditions requiring the farms to be managed to meet the Benthic Guidelines in the existing locations;
- iv. It is unlikely that King Salmon will apply for new consents at the lower-flow sites that are considered commercially unviable under the Benthic Guidelines;
- v. Salmon production from the remaining lower-flow farms would decline as the Benthic Guidelines are fully implemented:
 - (i) There would be a transition period of 2 to 5 years during which de-stocking ('fallowing') would be necessary to improve the benthic environment
 - (ii) Subsequently farms would be re-stocked to a level that can meet the Benthic Guidelines (i.e. lower than the current stocking level);
- vi. Some operational farms would remain near communities with attendant adverse social effects.

Benefits and costs of implementing Benthic Guidelines at existing sites

20. The benefits and costs of implementing the Benthic Guidelines at existing sites are summarised in Table 1. This analysis does not consider alternative commercial uses for the sites, such as shellfish or experimental finfish. In addition the economic analysis does not include the two Crail Bay sites that have been inactive since 2011, and are not considered to be economically viable under the Benthic Guidelines.

Table 1. Benefits and costs of implementing Benthic Guidelines at existing sites

Benefits	Costs
<u>Environmental</u> Improved localised benthic outcomes as a result of implementing the Benthic Guidelines and potential closure of some farms. Closure of farms would have flow on effects including reduced impacts on water quality and biodiversity.	<u>Environmental</u> Loss of resilience to climate change risks since farms will remain in higher temperature, lower flow sites. Limited opportunities for improved fish health and associated resilience to disease and water temperature increases.
<u>Social</u> Improved social license for industry. No increase in cumulative amenity and recreational impacts and potential for decrease due to closure of some farms.	<u>Social</u> Operational farms will remain near communities. Loss of employment opportunities (estimated at 105 FTEs for the first 2 to 5 years while farms are de-stocked ('fallowed') and thereafter a loss of 38 to 105 FTEs as remaining viable farms are re-stocked to lower levels. ⁴
<u>Cultural</u> Closure of farms could be regarded as a benefit by some iwi, particularly in relation to reduced impacts on water quality.	<u>Cultural</u> None.

<u>Economic</u> None.	<u>Economic</u> ⁴ Estimated annual reduction in GDP of \$10m for the first 2 to 5 years (the fallowing period) and thereafter an ongoing annual loss of between \$3.6 and \$10m. ⁵ Re-consenting costs for a discretionary activity: \$75 - 100k per farm (Council fees plus expert advice).
<u>Fiscal</u> None.	<u>Fiscal</u> Tax losses due to declining salmon production. Approximately \$250k spent on the project to date by MPI (sunk cost).

21. Assessed against the objectives, implementing the Benthic Guidelines at the existing sites would:

- Achieve objective (i), by improving the benthic environmental performance from salmon farming in the Marlborough Sounds.
- Potentially achieve objective (ii) by improving social and cultural outcomes, but have negative social and cultural outcomes in respect of job losses.
- Not achieve objective (iii) as significant economic losses are expected.
- Achieve objective (iv), as any farm closures would result in a decrease in the surface structure area used for salmon farming.
- Objective (v) does not apply.

Part 2. Implications of enabling relocation to reduce environmental impacts

22. Relocating to higher flow, more productive and environmentally sustainable sites is a viable option to meet the Benthic Guidelines without compromising economic returns. This is because at higher flow sites, the Benthic Guidelines can be complied with at higher levels of production.

23. Table 2 summarises the benefits and costs of enabling relocation. (This table excludes the costs and timeframes of options to enable relocation, which are set out in Table 4.)

Table 2. Benefits and costs of enabling relocation

<u>Benefits</u>	<u>Costs</u>
<u>Environmental</u> Reduced overall seafloor impacts over time and nutrient enrichment through application of the Benthic Guidelines.	<u>Environmental</u> Potential effects on endangered King Shags. Potential increase in cumulative effects of aquaculture on water quality from

⁴ PwC (November 2016) Marlborough Salmon Relocation Economic Impact Assessment. This report was peer reviewed by Ernst & Young.

⁵ There is scientific uncertainty about the stocking level that will meet the Benthic Guidelines after the fallowing period, so GDP and FTE implications have been estimated under both minimum and maximum levels. At minimum stocking levels, no farms are commercially viable. At maximum stocking levels, 3 farms are commercially viable and PwC estimates their production would create \$6.4m in GDP and lead to 67 FTEs in employment.

Benefits	Costs
Farming at higher flow sites will result in improved fish health. Healthier fish are more resilient to disease and water temperature increases	increased feed discharge from salmon farming.
<p><u>Social</u></p> <p>Reduced overall amenity effects (e.g. visual, noise and odour effects) on occupants of residential property and communities by moving farms further away from people and high-use areas and by using more modern, less visually intrusive infrastructure at some sites.⁶</p> <p>Enables discussion with the community about better management of salmon farming. The Benthic Guidelines were developed with community input to address an ongoing concern. Their implementation will provide greater public assurance of effective management of salmon farms by providing verifiable evidence of compliance with environmental standards.</p> <p>Employment opportunities (estimated to grow by 500 FTEs if the 6 relocation sites are fully developed, plus farm building jobs spread over a number of years). This gain will emerge over 10-15 years as farms develop.</p>	<p><u>Social</u></p> <p>Reduction in amenity and recreational values at relocation sites.</p> <p>Community concerns about the proposal and process.</p> <p>Landscape: Two sites are within areas identified as 'outstanding natural features and landscapes' in the proposed Marlborough Environment Plan. [See risk section]</p> <p>Cumulative impacts: Potential increase in the cumulative impact of aquaculture activities at relocation sites.</p>
<p><u>Economic⁴</u></p> <p>Independent estimates are that 100t of new salmon production adds \$450k of value to the Nelson Marlborough region.</p> <p>Net regional value added will depend on which relocation sites are finally agreed, since they have differing production potential under the Benthic Guidelines. If production increases by 6000t (doubling current production in the Sounds), it is estimated that approximately \$27.3m would be added to the regional economy annually.</p> <p>The net gain ranges from \$0 (if relocated sites are of equal productivity) to approximately \$39m⁷ (if all 6 proposed sites are fully developed).</p> <p>One-off investment in developing each new farm at a relocation site is estimated to add \$3.2m to the regional economy.</p>	<p><u>Economic</u></p> <p>King Salmon costs for technical reports about impacts at the potential sites – estimated total cost \$1m.</p> <p>Infrastructure removal costs at surrendered sites.</p>

⁶ Farms could use less intrusive infrastructure at their existing sites but it is not required by their existing resource consents.

⁷ The maximum value added is estimated to be \$49.2m once new farms are fully productive, whereas the value of production foregone at the lower flow sites without implementing the Benthic Guidelines is estimated to be \$10m.

Benefits	Costs
<u><i>Fiscal</i></u> Tax gains associated with any net increase in value of salmon production.	<u><i>Fiscal</i></u> Aquaculture Settlement obligations, estimated to be a maximum of [REDACTED] funded from within the Aquaculture Settlements budget.
<u><i>Cultural</i></u> Improvement in water quality. Participation in future monitoring. [REDACTED] Financial gain associated with increased net present value of Aquaculture Settlement.	<u><i>Cultural</i></u> There is concern that relocation undermines ability for iwi to undertake kaitiakitanga, and mahinga kai and manaaki tangata practices. One potential site is close to a wāhi tapu and the place of Te Ana O Kaikaiawaro (a taniwha). Ngāti Koata would like to see a reduction in the number of marine farms generally. In-depth engagement with iwi will take place to ensure that cultural concerns are identified and influence the decision on which, if any, sites are to proceed and decisions on appropriate ways to mitigate any concerns.

Options to give effect to relocation, including plan change and coastal permits

24. Giving effect to relocation has two steps:

- i. First, it requires a change to the Marlborough Sounds Resource Management Plan to enable relocation because:
 - a. Five out of six of the potential relocation sites are fully or partially within CMZ 1 where aquaculture is generally prohibited because of its potential impacts on significant landscape, natural character, recreational or amenity values, and
 - b. A rules framework is needed to ensure that any relocation occurs without increasing the total surface structure area of salmon farms.
- ii. Second, it requires that King Salmon apply for coastal permits to operate at the relocation sites, including the requirement for an Undue Adverse Effects⁸ test under the Fisheries Act.

25. To give effect to relocation, one regulatory option and two non-regulatory options are available. The regulatory option relies on sequential decisions on the plan change and

⁸ The purpose of the Undue Adverse Effects test is to determine whether a proposed marine farm would unduly affect recreational, customary or commercial fishing for specific fish stocks. A proposed marine farm cannot proceed if it would have 'undue' adverse effects on recreational or customary fishing, or commercial fishing for non-quota management system (non-QMS) stocks. When commercial fishing is unduly affected, compensation can be paid to affected quota owners. The outcome of the test cannot be predetermined, as it must consider all available information on fishing at the time of the assessment, including from public consultation.

coastal permits, whereas the non-regulatory options rely on concurrent decisions on the plan change and coastal permits. Applications for coastal permits are factored into the analysis for the purpose of comparing the timeframes and costs of each option. However, none of the options guarantees King Salmon would be granted coastal permits.

Table 3. Options to enable relocation, including plan change and coastal permits

<p>1. Regulations made under ss360A-C of the RMA followed by applications for coastal permits ("Regulation process")</p>
<p>The Minister of Aquaculture would recommend regulations under ss360A-C RMA to amend the Marlborough Sounds Resource Management Plan to enable relocation of up to 6 existing lower-flow sites, and prohibit any increase in the total surface structure area of consented salmon farm sites.</p> <p>Coastal permits would be for a restricted discretionary activity as it is intended that most of the coastal permit conditions would be imposed by rules in the amended plan. It would preclude public notification but allow the MDC discretion to give limited notification to any affected person, if written approval of the person cannot be obtained.</p> <p>Before Ministerial regulations are recommended the RMA requires there be public and iwi authority consultation. This process and details of the proposed plan change would aim to address the majority of concerns about environmental effects through the plan change, to limit the matters of council discretion in the coastal permit application, in order to streamline the consenting stage.</p> <p>Prior to recommending regulations the Minister would have to meet specific consultation and evaluation requirements set out under ss360A and B. It is possible, therefore, that the Minister may decide not to proceed with regulations. The plan change would take effect by a date specified in the regulation or as soon as practicable after the regulations come into force. Appeals of the Minister's decisions are limited to judicial review.</p> <p>Once the plan is changed, King Salmon would need to apply for new coastal permits in the relocation areas, including completion of the Undue Adverse Effects test administered by MPI. As new coastal permits are approved, consent for existing lower-flow sites would be surrendered.</p> <p>Decisions on the coastal permits can be appealed to the Environment Court, which would require a de novo hearing. Since the matters of discretion are limited it is expected that the costs of consideration would be relatively low. Environment Court decisions could be appealed to the High Court on points of law, and finally to the Court of Appeal depending on whether leave to appeal is granted. Decisions on the Undue Adverse Effects test are subject to Judicial Review.</p>
<p>2. Private request for concurrent plan change and coastal permits, considered by the EPA (Subpart 4 of Part 7A and s107F, RMA) ("EPA process")</p>
<p>King Salmon would lodge a request with the EPA for a change in the Marlborough Sounds Resource Management Plan to enable relocation and at the same time apply for coastal permits for the new sites. The application would provide for lower-flow sites to be surrendered for any coastal permits that are approved.</p> <p>The EPA would establish a Board of Inquiry to consider the application. Decisions on the plan change and coastal permit applications must be made within 9 months of public notification (without allowing for requests for further information and any extensions granted by the Minister for the Environment). As the technical reports have already been</p>

prepared and there has been a degree of “interested persons” involvement through the Working Group, the application should be able to be made in a timely manner.

Appeals to the EPA decision are limited to the High Court on points of law, and the Supreme Court if leave is given. The decision on the Undue Adverse Effects test is subject to Judicial Review.

3. Private request for a concurrent plan change and coastal permits, considered by Marlborough District Council (Part 2 of Schedule 1 and Subpart 4 of Part 7A, RMA) (“**MDC process**”)

As with Option 2, a concurrent application would be made by King Salmon for a plan change and coastal permits but it would be considered by MDC. The significant difference is that any decision could be appealed to the Environment Court for a de novo hearing. This could be appealed to the High Court on points of law, and finally to the Court of Appeal depending on whether leave to appeal is granted. The decision on the Undue Adverse Effects test is subject to Judicial Review.

26. Table 4 sets out estimated timeframes and costs for making a plan change and obtaining coastal permits under each option, taking into account the potential for legal challenges. Table 5 summarises the incidence of the costs and benefits.

Table 4. Estimated timeframes and costs for plan change and coastal permits

	Regulation (Option 1)	EPA process (Option 2)	MDC process (Option 3)
Plan + coastal permit			
Cost	\$1m	\$4-5m	\$1m
Time	15 months	9 - 12 months	24 months
Legal challenges	High Court judicial review (plan only)	High Court points of law (plan & consent)	Environment Court appeal (plan & consent)
Cost	\$100 –250k	\$400	\$2 to 3 m
Time	6 - 12 months	6 - 12 months	12 - 18 months
	Environment Court (coastal permits) ^a		
Cost	\$200 – 750k		
Time	6-12 months		
TOTAL TIME	25 to 39 months	15 to 24 months	36 to 42 months
TOTAL COST	\$1.2 to \$2m	\$4.4 to \$5.4m	\$3 to \$4m
Cost to Crown	\$850k to \$1.05m	0 ^b	0
Cost to King Salmon	\$450 to \$1m (Plus \$1m spent on technical reports)	\$4.4 to \$5.4m (Plus \$1m spent on technical reports)	\$3 to \$4m (Plus \$1m spent on technical reports)

Decisions on the Undue Adverse Effects are also subject to Judicial Review, but any proceedings are expected to be in the same time period as any appeals to the Environment Court or High Court. Estimates do not include additional costs to plaintiffs if court actions lost and do not include additional costs and time of potential subsequent appeals to higher courts.

^a Under Option 1 the opportunities for appeal at the consent stage are reduced mitigated because the plan would limit the matters of discretion and only require notification to affected parties.

^b Assumes the Crown does not input into the Board of Inquiry. It is likely the Crown would participate (~\$150k staff time)

Table 5. Incidence of the costs and benefits of options to enable relocation

<i>Option</i>	<i>Incidence: Who bears costs and benefits of relocation</i>
<p>1. Regulations to amend the plan, followed by applications for coastal permits</p>	<p>Government would bear the costs of</p> <ul style="list-style-type: none"> • consultation and regulatory plan change (~ \$750k) • Potential judicial review proceedings (\$100-200k) • Aquaculture Settlement obligations, estimated to be a maximum of [REDACTED] <p>King Salmon would bear the costs of:</p> <ul style="list-style-type: none"> • Environmental Impact Assessments at the potential sites (~\$1m) • Consenting costs for new sites (~\$250k for six sites) • Relocation • Potential appeal costs (~\$250-\$750k) <p>The community would bear the cost of participation in consultation process and possibly in coastal permit applications (MDC would have discretion to give limited notification to any affected person).</p> <p>Benefits are gained primarily by the environment and King Salmon, and secondarily by the community (through employment).</p> <p>Iwi would benefit from the change in financial value of their aquaculture settlement, but there may be a loss of opportunity to iwi if existing sites are closed to marine farming. [REDACTED]</p>
<p>2. Private request for concurrent plan change and coastal permits considered by EPA</p>	<p>King Salmon would bear the costs of:</p> <ul style="list-style-type: none"> • Plan change and coastal permit applications including paying for EPA, expert caucusing and lawyer participation (~\$4-5m) • Costs of appeals (~\$400k) • Relocation costs. <p>Government would bear costs to the extent that it is involved in hearing.</p> <p>The community would bear the cost of participation in the Board of Inquiry process.</p> <p>Incidence of the benefits the same as option 1.</p>
<p>3. Private request for concurrent plan change & coastal permits considered by MDC</p>	<p>Plan change costs borne by MDC and ratepayers, although some recoverable from King Salmon.</p> <p>Costs on community and Crown for participation in hearing.</p> <p>King Salmon would bear the cost of coastal permit applications and relocating.</p> <p>Incidence of the benefits the same as option 1.</p>

Assessment of relocation options against objectives

27. All of the relocation options would improve environmental performance, maintain or increase social,⁹ cultural and economic benefits, and ensure there is no overall increase in surface cage area. The key differences relate to timeframes and the scale and incidence of costs, as shown in Tables 4 and 5:
- Option 1 has the lowest costs but potentially longer timeframes, and costs and legal risks are borne principally by the Crown for the plan change and by King Salmon for the coastal permits.
 - Option 2 has the highest costs but potentially shortest timeframes, and costs and legal risks are borne principally by King Salmon.
 - Option 3 has similar costs to Option 2 but longer timeframes, and costs are borne principally by MDC and King Salmon with legal risks borne by King Salmon.
28. The EPA process (option 2) is shorter than the regulatory option because the plan change and coastal permit applications would be decided concurrently whereas the regulation can only amend the plan. Once the plan is changed, coastal permits applications would be needed.
29. Overall the regulatory option, Option 1, is expected to be the least expensive, with a medium timeframe and with costs and legal risks shared by the Crown and King Salmon. Option 2 is also viable: it has the shortest expected timeframe but has the highest costs and King Salmon would bear all the costs and legal risks. Option 3 is the least preferred: it is costly and slower, with the costs falling on King Salmon and MDC.

Consultation

30. In mid-2016, MPI, supported by the MDC, convened the Marlborough Salmon Working Group (Working Group) to consider options to implement the Benthic Guidelines so that better ecological, social, cultural and economic outcomes for salmon farming in Marlborough could be realised in the medium-term. The Working Group comprises nominated individuals from local and central government, key community and interest groups, iwi, and the aquaculture industry.
31. Seven workshops took place between July and October 2016. The Working Group considered 9 potential relocation sites and concluded that 3 sites should be eliminated from consideration, 3 sites should proceed to public consultation and there were divergent views about whether the 3 remaining sites were appropriate to proceed for consultation.
32. To assess the effects of developing salmon farms on the potential relocation sites, independent research investigations have been commissioned by MPI and paid for by King Salmon. Investigations were carried out on the potential effects on navigation, landscape and natural character, recreation and tourism, seabirds, marine mammals, pelagic fish, benthos, water quality, discharges, disease, biosecurity, underwater lighting, noise, operations, engineering, and potential impacts on cultural, heritage, social, and economic values.

⁹ Relocation has the potential to improve social outcomes. Social benefits would come through reduced adverse effects on competing values and new employment opportunities. Social costs relate mainly to loss of amenity and recreational values. The net effect depends on the final proposal and sites relocated.

33. Success of the proposal relies on iwi support and iwi cultural and settlement concerns being adequately addressed. Some engagement with iwi has taken place. Te Tau Ihu Forum were advised of the proposal and invited to nominate participants for the Working Group. A cultural impact assessment has been prepared and Ngāti Koata has provided their own cultural impact assessment. There is concern that relocation undermines the ability for iwi to undertake kaitiakitanga and mahinga kai and manaaki tangata practices, and there is also specific concern that one of the potential sites is close to a wāhi tapu and to the place of Te Ana O Kaikaiawaro (a taniwha). Ngāti Koata would like to see a reduction in the number of marine farms generally.
34. Consultation with the public and iwi authorities on the proposed regulation to amend the plan to enable relocation will occur in January through March 2017.

Conclusions and recommendations

35. Analysis in Part 1 concluded it is not possible to achieve the objectives at the existing sites.
36. Analysis in Part 2 concluded that the relocation proposal would provide improvements for the benthic environment and economic benefits. It would also provide an opportunity to improve the social outcomes of salmon farming by moving farms to locations where there are fewer competing uses and by establishing less visually intrusive farms. All the potential relocation sites are in areas that have operating mussel farms nearby so they are not pristine sites, however there is potential for an increase in cumulative effects especially on amenity values. Under the proposal, it is possible that more than one existing lower-flow site could be relocated to a higher-flow site, thus reducing the number of salmon farms in the Sounds.
37. Part 2 identified two legitimate RMA tools to enable relocation:
- (i) Government using the aquaculture regulation-making power to amend the plan, followed by coastal permit applications (Option 1); and
 - (ii) King Salmon applying for a concurrent plan change and coastal permits, considered by the EPA (Option 2).
38. An application for a concurrent plan change and coastal permits considered by the MDC (Option 3) would not meet Objective (v) as it is the slowest option (having a significantly longer minimum timeframe), and is also expensive (although not the most expensive option).
39. Option 1 has the lowest costs but it takes more time than Option 2. Opportunities for legal challenge also differ for these two options. Under the EPA process decisions can only be challenged to the High Court on points of law. This is similar to the regulation making power (in relation to the plan change) where recourse is to judicial review only. The difference is that the subsequent coastal permit applications can be appealed to the Environment Court increasing time and cost. The appeal risk is mitigated because under the proposal, notification and the right to appeal would be limited to affected parties only and to the matters of consent discretion. In both cases the Undue Adverse Effects test necessary to obtain the coastal permit is subject to judicial review.
40. Even with a risk of appeals to the Environment Court, it is likely that the regulatory option will be more cost effective than the EPA option. MDC has reiterated its broad support for this process to amend the plan.

41. Another important difference is that under Option 2 the costs and legal risks fall on King Salmon, whereas under Option 1 the costs are shared by the Crown and King Salmon.
42. Ministerial regulations is the only option available to the Crown if it wishes to control the process. In deciding whether to progress this option, decision makers should consider the likely timeframes and costs (as shown in Table 5).
43. Ministerial regulations and subsequent coastal permit applications would take longer, (estimated 15 months) but be significantly less costly (approximately \$1m, comprising \$750k for the plan change and \$250k for the coastal permits). These costs would be shared by the Crown and King Salmon. The costs and legal risks of the plan change would be borne mostly by the Crown.¹⁰ King Salmon would bear the bulk of the costs and legal risks of the coastal permit applications.
44. Under a private request for a concurrent plan change and coastal permits lodged with the EPA, the Crown would do nothing except possibly appear at the hearing before the EPA. The EPA process would take an estimated 9-12 months. Costs would be significantly higher (\$4-5m), and King Salmon would bear all the costs and legal risks.

Risks

Table 6. Risks, comments and mitigations for relocation under Options 1 and 2

Risk	Risk comment and mitigation	Option	Risk level
Opposition to specific relocation sites and community opposition to salmon farming growth and central government intervening in the regional planning process	<ul style="list-style-type: none"> While the proposal may deliver generally improved environmental performance, there will be individuals and groups particularly affected by the proposal who are strongly opposed to introducing salmon farms to new areas. These views are expected to come through in public consultation. MPI has convened a Working Group to identify principles and select sites for consultation. Relinquishing existing lower flow sites is expected to have local community support particular where they are currently in high use areas and close to residential properties. Extensive investigations on the impacts at potential sites has been undertaken, and will be publicly available. Consultation provides an opportunity for the community to participate in the process and raise their concerns. 	Options 1 and 2	H
Legal risks	<ul style="list-style-type: none"> The risk of judicial review is high (whether or not it is likely to succeed) because this would be the first time the ss360A-C regulation-making power is used, and due to historic opposition to salmon farming in the Marlborough Sounds. 	Option 1	H

¹⁰ King Salmon would bear the \$1m cost of the technical reports.

	<p>This paragraph contained a summary of legal advice provided by Crown Law and is redacted in accordance with the usual Crown practice to maintain legal professional privilege.</p> <ul style="list-style-type: none"> The Minister must establish a process that he consider gives the public and iwi authorities adequate time and opportunity to comment on the proposed regulations; and will ensure that any future decision to recommend regulations is based on robust information, takes into account consultation, and meets all the requirements of ss360A and 360B. 		
Negative perception of an intervention that supports a particular company (King Salmon)	<ul style="list-style-type: none"> This proposal is about implementing better management of salmon farms without compromising commercial viability and King Salmon is the only operator in the Marlborough Sounds. 	Option 1	M
Relocation sites (2) in areas proposed as Outstanding Natural Features/Landscapes	<ul style="list-style-type: none"> An independent landscape report suggests that the sites could still be progressed in a way that gives effect to the New Zealand Coastal Policy Statement 2010 (i.e. result in effects that are no more than minor). However, there are different professional views on this and likely strong community views. The consultation process will allow for views to be canvassed and further expert opinion obtained. 	Options 1 and 2	M
		Option 1	M
	<ul style="list-style-type: none"> MPI is also working closely with Te Tau Ihu on the relocation proposal 	Options 1 and 2	
Māori cultural concerns about impacts at relocation sites	<ul style="list-style-type: none"> There will be further consultation with Iwi authorities to ensure any cultural concerns are identified and assessed in determining which sites, if any, should proceed. To date, specific customary concerns have only been raised in relation to one site. 	Options 1 and 2	M

Costs and risks to King Salmon	<ul style="list-style-type: none"> Based on the cost of their last application King Salmon will be reluctant to progress a private plan change and potential benefits would not be realised 	Option 2	M
		Option 1	L
Marlborough District Council opposition to central government intervention	<ul style="list-style-type: none"> MPI has met with the recently elected Council to brief them on the consultation proposal and confirmed their general support for the process. MPI has worked closely with MDC. Council staff support relocation provided the Ruakaka site is included in the proposal, because the area is of high landscape value. DOC have also identified Ruakaka as a priority to be relocated. 	Option 1	L
	<ul style="list-style-type: none"> The bulk of the plan change costs will be borne by central government rather than council. 		
Second generation plan	<ul style="list-style-type: none"> Whether MDC will notify Marlborough Environment Plan before King Salmon can apply for coastal permits. MPI is working closely with MDC on this matter. 	Option 1	L
Private benefit from public space	<ul style="list-style-type: none"> MDC is working on introducing a coastal occupation charge. King Salmon supports this initiative. 	Options 1 and 2	L

Implementation

45. A change to the Marlborough Sounds Resource Management Plan is required to enable relocation because:

- i. Most of the potential relocation sites are fully or partially within areas where aquaculture is prohibited under the plan, and
- ii. A rules framework is needed to ensure that any relocation occurs without increasing the total surface structure area of salmon farms.

46. Relocation would introduce new salmon farming sites to CMZ1 and these sites would need to be rezoned as CMZ3. Independent research investigations to assess adverse effects on the values identified in CMZ1 have been commissioned by MPI and paid for by King Salmon. Assessments undertaken include the potential impacts on navigation, landscape and natural character, recreation and tourism, cultural values, heritage values, social values, and economic values. The potential effects on these values would also be assessed through consultation with the public and iwi authorities.

47. If the plan change is progressed using a regulation recommended by the Minister of Aquaculture under ss360A-C of the RMA, consultation with the public and iwi authorities

would be required, along with further evaluation. Consultation is also required with the Minister of Conservation, other relevant Ministers, and Marlborough District Council.

48. Achieving relocation through Ministerial regulations is subject to:

- i. Consultation and evaluation to meet the statutory requirements for recommending regulations to change the Marlborough Sounds Resource Management Plan.
- ii. Successful applications for new coastal permits in the relocation sites, including completion of the "Undue Adverse Effects" test administered by MPI.¹¹
- iii. Meeting Māori Commercial Aquaculture Claims Settlement obligations created by establishing new marine farms at relocation sites.
- iv. MDC granting coastal permits for the relocation sites.

49. Once the consultation and evaluation requirements have been met, the Minister of Aquaculture would decide whether to recommend regulations, and if so the exact nature of the relocation to be provided for. Once the regulations take effect, the amendments would become part of the Marlborough Sounds Resource Management Plan.¹²

50. King Salmon would then need to apply for coastal permits to establish and operate salmon farms in the agreed relocation sites. The permit approval would encompass requirements associated with moving any fish from one site to another. King Salmon will not be authorised to simultaneously operate on both an old site and a new site. As lower-flow sites are surrendered, King Salmon will need to remove infrastructure.

51. Implementing relocation through Ministerial regulations and consent applications would have to occur before the 2nd generation coastal plan for Marlborough is notified, because the regulations would be specifically designed to change the current plan. Maintaining good communication with MDC would ensure the proposal would be progressed so that regulations would take effect, and coastal permit applications would be lodged before the 2nd generation plan is notified, and that any agreed relocation sites are provided for in the new plan.

52. The next steps for implementing through Ministerial regulations would be:

- i. Implementation of a consultation process approved by the Minister that gives the public and iwi authorities adequate time and opportunity to comment on the proposed regulations.
- ii. Preparation of a report and recommendation on the comments received.
- iii. Public notification of the report and recommendation.
- iv. Preparation of an evaluation report in accordance with s32 of the RMA.
- v. Consultation with the Minister of Conservation and other relevant Ministers.
- vi. Analysis and advice for the Minister of Aquaculture to provide assurance that all requirements under ss360A and 360B of the RMA have been met prior to making a decision on whether to recommend regulations.
- vii. Drafting of regulations by the Parliamentary Counsel Office.

¹¹ The purpose of the Undue Adverse Effects test is to determine whether a proposed marine farm would unduly affect recreational, customary or commercial fishing for specific fish stocks. A proposed marine farm cannot proceed if it would have 'undue' adverse effects on recreational or customary fishing, or commercial fishing for non-quota management system (non-QMS) stocks. When commercial fishing is unduly affected, compensation can be paid to affected quota owners. The outcome of the test cannot be predetermined, as it must consider all available information on fishing at the time of the assessment, including from public consultation.

¹² Subject to the possibility of a Judicial Review of the Minister's decision.

53. The strong commitment throughout this process to a collaborative approach via the Working Group has identified a number of community concerns related to the proposal, but it is likely the proposal will still be controversial. A robust consultation process will be needed to ensure community views are heard and taken into account.

Monitoring, evaluation and review

54. There are no compulsory monitoring, evaluation or review requirements under ss360A-C RMA. If regulatory intervention proceeds it could be evaluated against the objectives set out below.

Objective (i): Improves environmental performance of salmon farming in the Marlborough Sounds by ensuring adoption and implementation of the Benthic Guidelines

55. The environmental benefits of implementing the Benthic Guidelines will be realised under all options, including the status quo, whether or not Government intervenes [assuming King Salmon and MDC review the consent conditions as indicated]. However, the environmental benefits will be realised sooner under relocation because they can happen before the consents are reviewed. No specific evaluation is required, however results from monitoring under the Benthic Guidelines will be publicly available on the MDC's website.

Objective (ii): Maintains or improves the social and cultural outcomes of salmon farming in Marlborough

56. Measuring any change in social and cultural outcomes from salmon farming would be difficult. It may be possible to gauge whether social and cultural outcomes are likely to improve through consultation. The number of jobs created would help inform the extent of social benefits. When delivering final recommendations, MPI will advise the Minister of Aquaculture of the implications of relocation for social and cultural outcomes.

Objective (iii): Maintains or increases the economic benefits of salmon farming in Marlborough

57. The key reason for intervention is to improve environmental outcomes without sacrificing economic returns. Economic returns are expected to increase if relocation proceeds. Specific evaluation of the economic outcomes may not be required and is not planned. Estimates of economic returns are based on existing production figures and scientific estimates of potential production at proposed relocation sites. As production develops at the relocation sites data would become available to assess economic benefits if required.

Objective (iv): Ensures no overall increase in the total surface structure area of salmon farms.

58. This objective could be achieved under all relocation options. The Government has the most influence over whether this objective is achieved if regulations are used. Evaluation is not required.

Objective (v): In the case of relocation, can be achieved in a cost-effective and timely way.

59. A key difference between the options to achieve a plan change and coastal permits is the timeframe, and the scale and incidence of costs, as shown in Tables 4 and 5. Regulatory intervention is expected to be the least expensive option, with a medium timeframe and with the bulk of costs and legal risks shared by the Crown and King Salmon.

60. Information on the actual costs and timeframe of regulatory intervention could inform future projects for which the ss360A-C regulation-making power is considered. Officials in

MPI's Aquaculture Unit will assess the actual timeframe and cost for achieving the plan change and coastal permits through regulatory intervention and report them to the Director of Economic Development and Partnerships if the regulation making power is going to be used again. This would help with estimating the costs and timeframes for future use of the ss360A-C power.

61. Some caution will need to be taken in relying on evaluation of the time and cost to achieve this regulatory intervention. Because consultation is required, and different issues will arise on a case-by-case basis, estimates of time and cost will still depend on whether appeals are taken.