



COMMERCE COMMISSION

Decision No. 659

Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving:

SALMON SMOLT NEW ZEALAND LIMITED

and

**NATIONAL INSTITUTE OF WATER AND ATMOSPHERIC
RESEARCH LIMITED**

- The Commission:** Paula Rebstock
Denese Bates QC
Peter JM Taylor
- Summary of Application:** The acquisition by Salmon Smolt New Zealand Limited of the assets of the Silverstream Salmon Smolt Hatchery from the National Institute of Water and Atmospheric Research Limited.
- Determination:** Pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance to the proposed acquisition.
- Date of Determination:** 30 October 2008

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EXECUTIVE SUMMARY

- E1. A notice pursuant to s 66(1)b of the Commerce Act 1986 (the Act) was registered on 8 October 2008. The notice sought clearance for the acquisition by Salmon Smolt New Zealand Limited (SSNZ) of the assets of the Silverstream salmon smolt hatchery from the National Institute of Water and Atmospheric Research Limited (NIWA).
- E2. SSNZ is a joint venture formed by a number of firms, which are predominantly involved in salmon farming in the South Island: Mount Cook Salmon Limited, Akaroa Salmon New Zealand Limited, Island Aquafarms Limited, High Country Salmon Limited, Benmore Salmon 2001 Limited, and Sanford Limited. NIWA is one of nine New Zealand Crown Research Institutes.
- E3. Silverstream Hatchery supplies young salmon at various developmental stages (i.e., including fertilised eggs, alevin, fry and smolt) on a commercial basis to salmon farmers and recreational organisations. In these reasons the Commission has used “smolt” as a generic term to include all of these different developmental stages of salmon.
- E4. The Commission has considered the probable nature and extent of competition that would exist, subsequent to the proposed acquisition, in the following markets:
- the South Island market for the production and supply of salmon smolt to salmon farms, fish and game and other recreational fishing organisations (the smolt market); and
 - the national market for the production and wholesale supply of mature salmon from salmon farms (the mature farmed salmon market).
- E5. The Commission considers the relevant counterfactual scenario to be that Silverstream would be acquired by a third party that would not give rise to a substantial lessening of competition.
- E6. The Commission concludes that the proposed acquisition would be unlikely to enhance unilateral effects in the smolt market, as SSNZ would continue to face constraint from:
- existing competitors, who could readily expand their smolt output;
 - the threat of potential competition from new entrants; and
 - the countervailing power of customers, which could self-supply in the event of an exercise of market power by SSNZ.
- E7. It is also for these reasons that the Commission concludes that the proposed acquisition would be unlikely to enhance the scope for coordinated conduct in the smolt market.

- E8. The Commission considers that it is unlikely that the proposed acquisition would enhance the scope for vertical effects. As outlined above, SSNZ is likely to face competitive constraint, and therefore unlikely to attain market power in the smolt market post-acquisition. Without market power, it is unlikely that the shareholders of SSNZ would have the ability to influence the downstream mature farmed salmon market and substantially lessen competition.
- E9. Therefore, the Commission is satisfied that the proposed acquisition will not have, nor would be likely to have, the effect of substantially lessening competition in any market.

THE PROPOSAL

1. A notice pursuant to s 66(1)b of the Commerce Act 1986 (the Act) was registered on 8 October 2008. The notice sought clearance for the acquisition by Salmon Smolt New Zealand Limited (SSNZ) of the assets of the Silverstream hatchery (Silverstream) from the National Institute of Water and Atmospheric Research Limited (NIWA).
2. The current Application involves the acquisition of assets at one functional level (i.e., the Silverstream hatchery) by industry participants that operate at another functional level (i.e., salmon farmers that are shareholders in SSNZ). To this extent, the key competition concern is whether the factual would give rise to an enhanced scope for vertical effects, relative to the counterfactual.
3. Essentially, the Commission must consider whether SSNZ would face competitive constraint in the smolt market, post-acquisition. This is because an absence of competitive constraint at this functional level may enable the shareholders of SSNZ to leverage their market power into the downstream mature farmed salmon market and substantially lessen competition.

PROCEDURE

4. Section 66(3) of the Act requires the Commission either to clear or to decline to clear the acquisition referred to in a s 66(1) notice within 10 working days, unless the Commission and the person who gave notice agree to a longer period. An extension of time was agreed between the Commission and the Applicant and the Commission reached its decision well within that period.
5. The Commission's approach to analysing the proposed acquisition is based on principles set out in the Commission's Mergers and Acquisitions Guidelines.¹

STATUTORY FRAMEWORK

6. Under s 66 of the Act, the Commission is required to consider whether the proposal will have, or would be likely to have the effect of substantially lessening competition in a market. If the Commission is satisfied that the proposal would not be likely to substantially lessen competition then it is required to grant clearance to the application. Conversely if the Commission is not satisfied it must decline the application. The standard of proof that the Commission must apply in making its determination is the civil standard of the balance of probabilities.²
7. The substantial lessening of competition test was considered in *Air New Zealand & Qantas v Commerce Commission*, where the Court held:

We accept that an absence of market power would suggest there had been no substantial lessening of competition in a market but do not see this as a reason to forsake an analysis of the counterfactual as well as the factual. A comparative judgement is implied by the statutory test which now focuses on a possible change along the spectrum of market power rather than on whether or not a particular position on that spectrum, i.e., dominance has been attained. We consider, therefore, that a study of likely outcomes, with and without the proposed Alliance, provides a more rigorous framework for the comparative analysis required and is likely to lead to a more informed assessment of competitive conditions than would be permitted if the inquiry were limited to the existence or otherwise of market power in the factual.³

¹ Commerce Commission, *Mergers and Acquisitions Guidelines*, January 2004.

² *Commerce Commission v Woolworths & Ors* (2008) NZCA 276.

³ *Air New Zealand & Qantas Airways Limited v Commerce Commission* (2004) 11 TCLR 347, Para 42.

8. In determining whether there is a change along the spectrum which is significant, the Commission must identify a real lessening of competition that is not more than nominal and not minimal.⁴ Competition must be lessened in a considerable and sustainable way. For the purposes of its analysis the Commission is of the view that a lessening of competition and creation, enhancement or facilitation of the exercise of market power may be taken as being equivalent.
9. When the impact of market power is expected to be predominantly upon price, for the lessening, or likely lessening, of competition to be regarded as substantial, the anticipated price increase relative to what would otherwise have occurred in the market has to be both material, and ordinarily able to be sustained for a period of at least two years or such other time frame as may be appropriate in any give case.
10. Similarly, when the impact of market power is felt in terms of the non-price dimensions of competition such as reduced services, quality or innovation, for there to be a substantial lessening, or likely substantial lessening of competition, these also have to be both material and ordinarily sustainable for at least two years or such other time frame as may be appropriate.

ANALYTICAL FRAMEWORK

11. The Commission applies a consistent analytical framework to all its clearance decisions. The first step the Commission takes is to determine the relevant market or markets. As acquisitions considered under s 66 are prospective, the Commission uses a forward-looking type of analysis to assess whether a lessening of competition is likely in the defined market(s). Hence, an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:
 - with the acquisition in question (the factual); and
 - in the absence of the acquisition (the counterfactual).
12. The impact of the acquisition on competition is then viewed as the prospective difference in the extent of competition in the market between those two scenarios. The Commission analyses the extent of competition in each relevant market for both the factual and the counterfactual, in terms of:
 - existing competition;
 - potential competition; and
 - other competition factors, such as the countervailing market power of buyers or suppliers.

⁴ *Fisher & Paykel Limited v Commerce Commission* (1996) 2 NZLR 731, 758 and also *Port Nelson Limited v Commerce Commission* (1996) 3 NZLR 554; *Commerce Commission v Woolworths & Ors* (2008) NZCA 276.

RELEVANT PARTIES

Salmon Smolt New Zealand Limited (SSNZ)

13. SSNZ is a privately-owned company that was formed by a number of Silverstream's existing customers for the purpose of acquiring Silverstream from NIWA.
14. Presently, there are eight shareholders of SSNZ that have an equal shareholding, and all of these firms operate salmon farms throughout the South Island.
15. Two of the existing eight shareholders (Isaac Salmon Farm Limited and Leslie Salmon Limited) have relinquished their involvement with SSNZ []. SSNZ advised the Commission that the shareholdings will be readjusted such that the remaining six parties will each have an equal shareholding. The six shareholders will then be:
 - Akaroa Salmon Company Limited (Akaroa Salmon);
 - Benmore Salmon 2001 Limited (Benmore Salmon);
 - High Country Salmon Limited (High Country Salmon);
 - Island Aquafarms Limited (Island Aquafarms);
 - Mount Cook Salmon Limited (Mt Cook Salmon); and
 - Sanford Limited (Sanford).
16. Sanford is the second largest salmon farmer in New Zealand, and recently increased its production of farmed mature salmon from [] to [] tonnes per annum. Sanford is a publicly-listed company that is the largest aquaculture operator in New Zealand, and is involved in the production of a range of different seafood products. Sanford operates salmon farms in Big Glory Bay on Stewart Island, and two salmon hatcheries - one located on the Clutha River and one located on the Waitaki River. Sanford usually has excess smolt at the end of the hatching season, and it supplies this surplus to other salmon farmers and recreational organisations. Sanford is also one of the largest purchasers of smolt from Silverstream.
17. Then in succeeding order of size are Benmore Salmon, Akaroa Salmon, and Mt Cook Salmon, which all produce [] of farmed mature salmon per annum. Isaac Salmon Farm Limited (Isaac Salmon), High Country Salmon, and Leslie Salmon Limited (Leslie Salmon) all produce [] of farmed mature salmon per annum. All of these salmon farmers presently rely on Silverstream hatchery, and to a lesser extent, Sanford, for smolt and eyed-ova.
18. Island Aquafarms is in the process of establishing its salmon farming operations in the Marlborough Sounds, and it is anticipated to be a large farm producing up to [] tonnes per annum of farmed mature salmon. Whilst it is a shareholder in SSNZ, it is also developing its own salmon hatchery in North Canterbury. Island Aquafarms advised the Commission that it intends to self-supply from its hatchery, but will continue to acquire smolt from Silverstream in order to minimise the risks associated with depending on a single hatchery for its supply of smolt. Island Aquafarms will likely supply excess smolt to other salmon farmers on a commercial basis [].

National Institute of Water and Atmospheric Research Limited (NIWA)

19. NIWA is one of nine Crown Research Institutes, and operates a number of aquaculture research facilities. One of these facilities is the salmon research station at Silverstream, located north of Christchurch on a tributary of the Kaiapoi River.
20. NIWA advised that whilst most of the scientific research undertaken at its Silverstream hatchery has been relocated to Bream Bay, Northland, Silverstream has continued to supply eyed-ova and smolt (raised from selected broodstock) on a commercial basis to customers located throughout the South Island. Customers then grow the smolt to mature salmon. Approximately []% of smolt produced at Silverstream is supplied to the shareholders of SSNZ.

Other Parties

21. Other than Isaac Salmon and Leslie Salmon, the only existing customers of Silverstream that will not be shareholders of SSNZ are recreational fishing and acclimatisation organisations, including Fish & Game, the Otago Salmon Anglers Association, and Golden Bay Salmon Fishing Limited t/a Anatoki Salmon Farm (Anatoki Salmon).
22. The New Zealand King Salmon Company Limited (NZKS) is the largest salmon producer in New Zealand, supplying [] tonnes per annum of farmed mature salmon from its salmon farms located in the Marlborough Sounds. NZKS is ultimately a wholly-owned subsidiary of the Tiong Group, which is based in Malaysia.
23. NZKS will remain independent of SSNZ, as it does not acquire smolt or eyed-ova from Silverstream. Rather, it self-supplies from its salmon hatcheries located throughout the northern part of the South Island. It does not supply eyed-ova or smolt to other salmon farmers, but does supply some recreational organisations.
24. A complete list of relevant parties that were interviewed by, or provided information to, the Commission is attached as Appendix 1.

INDUSTRY BACKGROUND

25. Only Chinook salmon (also known as ‘Quinnat’ or ‘King Salmon’) are successfully farmed in New Zealand. This is in contrast to the rest of the world where salmon aquaculture is focused on Atlantic salmon. Approximately 50% of New Zealand salmon production is exported. The main export market is Japan with supply also to the rest of the Pacific rim countries, including Australia.
26. The production of smolt is always carried out in freshwater hatcheries. The first stage is to collect ova (from female salmon) and milt (containing sperm from male salmon). Ova and milt is obtained from captive broodstock that have been chosen for their favourable sizes and general healthiness. An average female produces about 5,000 ova.
27. Fertilised ova (‘eyed-ova’), are incubated in a freshwater hatchery at 8-12°C. hatch into tiny fish (known as an ‘alevin’). These emerge and grow, absorbing nutrition from the egg-sac still attached to their abdomens. After

approximately one month, the egg-sac is absorbed and the fish, now known as ‘fry’, start feeding and become mobile.

28. The fry are then transferred into raceways and reared for a further 6-12 months until they become juvenile fish, or ‘smolt’. Smolt, ex-hatchery, vary in size between 8 and 15 cm in length depending on the requirements of the salmon farm or recreational fishing organisation purchasers.⁵
29. Industry participants informed the Commission that the majority of salmon seed stock commercially supplied by hatcheries is in the form of either eyed-ova or smolt. However, depending on purchasers’ requirements, hatcheries will supply salmon seed stock at other developmental stages, e.g., ova, milt, and fry.
30. At salmon farms smolt are loaded into cages or ponds where they are reared for the remainder of their lives. Fish remain in captivity for two to three years, and are typically harvested at weights of between 2 and 4 kg.⁶ Salmon aquaculture is now undertaken in two main ways: freshwater cage and sea cage rearing. Freshwater rearing is carried out in the MacKenzie Basin by Mt Cook Salmon, Benmore Salmon, and High Country Salmon in canals that are part of the Upper Waitaki power project. All other salmon farmers in New Zealand rear salmon in seawater cages located in Stewart Island, Akaroa Inlet and the Marlborough Sounds. Table 1 shows the location and volume of salmon produced by salmon farmers in New Zealand.

Table 1. New Zealand Salmon Farmers

Salmon Farmer	Location of Farms	Volume of Farmed Mature Salmon Produced (tonnes per annum)	Percentage of Farmed Mature Salmon Produced
NZKS	Marlborough Sounds	[]	[]%
Sanford	Big Glory Bay, Stewart Island	[]	[]%
Benmore	McKenzie Country	[]	[]%
Mt Cook Salmon	McKenzie Country	[]	[]%
Akaroa Salmon	Akaroa Inlet	[]	[]%
Isaac Salmon	Christchurch	[]	[]%
Leslie Salmon	Ashburton/Methven	[]	[]%
High Country Salmon	McKenzie Country	[]	[]%
Island Aquafarms	Marlborough Sounds	[]	[]%
Total		[]	100%

Source: Industry Participants

31. Other than Isaac Salmon and Leslie Salmon [], the only existing customers of Silverstrem that will not be shareholders of SSNZ are recreational fishing and acclimatisation organisations, including Fish & Game, the Otago Salmon Anglers Association, and Anatoki Salmon. These organisations’ activities relate to the supplementation of ‘wild’ salmon stocks and the enhancement of

⁵ New Zealand Salmon Farmers Association, Inc. www.salmon.org.nz

⁶ New Zealand Salmon Farmers Association, Inc. www.salmon.org.nz

recreational salmon fishing activities by the release of smolt into rivers, harbours and ponds. Some of these organisations also have their own hatcheries from which they self-supply.

PREVIOUS RELEVANT DECISIONS

32. Although the Commission has not recently considered mergers in the salmon industry, there are a number of relevant decisions from competition agencies in other jurisdictions from which the Commission can draw upon. The Commission has taken these into consideration in its analysis of the current Application.⁷

MARKET DEFINITION

33. The Act defines a market as:

“... a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.”⁸

34. For the purpose of competition analysis, the internationally accepted approach is to assume the relevant market is the smallest space within which a hypothetical, profit, maximising, sole supplier of a good or service, not constrained by the threat of entry would be able to impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the dimensions of the market discussed below. The Commission generally considers a SSNIP to involve a five to ten percent increases in price that is sustained for a period of one year.
35. This Application concerns an Acquirer whose shareholders are involved in the production of mature salmon, and to a lesser extent, the production of smolt. The Vendor is involved in the production of smolt only.

Product and Functional Dimensions

36. The proposed acquisition primarily involves the purchase of assets at one functional level (i.e., Silverstream) by industry participants that operate at another functional level (i.e., salmon farmers that are shareholders in SSNZ). To this end, the Commission considers the competitive impact of the proposed acquisition in the context of both of these functional levels.
37. The UKCC and the EC both considered that the supply of smolt and the supply of mature salmon were discrete activities — no other product can be substituted for smolt and production technologies for smolt and mature salmon are different.⁹ Industry participants interviewed by the Commission in respect of this Application echoed these sentiments, advising that each of these business operations relates to discrete activities at each stage of the life-cycle,

⁷ Office of Fair Trading, *Pan Fish ASA / Marine Harvest NV*, 6 July 2006; UK Competition Commission, *Pan Fish ASA / Marine Harvest NV*, 18 December 2006; European Commission, *Nutreco Holding NV / Hydro Seafood GSP Limited: A report on the proposed merger*, December 2000, Cm 5004; European Commission, Case No COMP/M.3722, *Nutreco / Stolt-Nielsen / Marine Harvest JV*, 12 April 2005.

⁸ s 3(1A) of the Commerce Act 1986.

⁹ *Nutreco Holding NV / Hydro Seafood GSP Limited: A report on the proposed merger*, December 2000, Cm 5004; Office of Fair Trading, *Pan Fish ASA / Marine Harvest NV*, 6 July 2006; UK Competition Commission, *Pan Fish ASA / Marine Harvest NV*, 18 December 2006.

and for that matter the supply-chain, of mature salmon. The environmental conditions, technologies and infrastructure involved in the provision of eyed-ova and smolt differ to those for the provision of mature salmon.

Salmon Smolt

38. Industry participants advised the Commission that there are some differences in the technologies and infrastructure involved in the production and supply of each of the various developmental stages of juvenile salmon (eyed-ova, fry and smolt of varying sizes). Therefore, on the demand-side, a customer could not substitute smolt for any other form of salmon seed stock, such as eyed-ova, without incurring the costs associated with implementing the necessary equipment. For example, Leslie Salmon acquires eyed-ova from Silverstream, but has developed its own infrastructure for hatching these ova and rearing smolt from them. High Country Salmon advised the Commission that it could not acquire eyed-ova without additional investment and acquisition of a specialised hatchery for the eyed-ova, or tanks or raceways to on-grow smolt.
39. However, as all of these steps comprise developmental stages in the life-cycle of salmon, on the supply-side, a hatchery would need to be able to undertake all of these activities from the outset. That is to say, hatcheries appear to have economies of scope that would allow them to readily switch from supplying one form of salmon seed stock to another in response to a SSNIP. It is for this reason that whilst all hatcheries supply the majority of their customers with smolt, they also supply customers with eyed-ova.
40. The Commission therefore considers that for the purpose of assessing the competition effects of the proposed acquisition, it is appropriate to define a market which encompasses all developmental stages of juvenile salmon (i.e., eyed-ova, fry, and smolt of varying sizes). For ease of reference, the Commission refers to this market as a market for salmon smolt.

Mature Farmed Salmon

41. Other jurisdictions have previously considered that farmed mature salmon and 'wild' salmon comprised discrete markets, although did not specifically consider mature salmon in the context of recreational fishing activities.¹⁰
42. Industry participants interviewed by the Commission advised that there is limited substitutability between mature salmon from salmon farms, and mature salmon from recreational fishing activities, as the source of demand differs between the two.
43. The demand for mature salmon from salmon farms is ultimately for the consumption of salmon meat and/or secondary processed salmon meat products. To this end, the business activities of salmon farms are primarily involved in the production of high-quality, high-yield, mature farmed salmon through intensive farming practices. It is also for this reason that many salmon farmers invest in broodstock programmes; using selection processes to enhance the gene pool, and therefore quality and yield of salmon meat sourced from mature farmed salmon.

¹⁰ EC, Case No COMP/M.3722, *Nutreco / Stolt-Nielsen / Marine Harvest JV*, 12 April 2005; *Nutreco Holding NV / Hydro Seafood GSP Limited: A report on the proposed merger*, December 2000, Cm 5004; Office of Fair Trading, *Pan Fish ASA / Marine Harvest NV*, 6 July 2006; UK Competition Commission, *Pan Fish ASA / Marine Harvest NV*, 18 December 2006.

44. Conversely, the source of demand for mature salmon from recreational fishing activities is ultimately for the provision of live salmon *in situ* for recreational anglers. Recreational organisations are moreover focussed on promoting fishing activities and facilitating the possibility of a catch. There is comparatively less importance placed on the physical attributes of mature salmon from recreational salmon fishing activities, and as such there is less focus on broodstock programmes. The physical characteristics of these salmon generally reflect those of a normal population.
45. In theory, there could be a market for the sale of mature salmon from recreational fishing activities. However, from a practical point of view, recreational fishing is unlikely to be a viable alternative source of mature salmon, given the numbers of fish involved and the fact that recreational fishers cannot sell their catch.
46. Consequently, the Commission has not separately considered the competition effects of the proposed acquisition on a market for the sale of mature salmon from recreational fishing activities. The Commission does however recognize that recreational fishing organisations are a distinct group of smolt customers, and duly takes into account the impact of the acquisition on these parties in its competition analysis of the smolt market.
47. In any case, the Commission considers that the proposed acquisition is unlikely to give rise to competition concerns in respect of the provision of mature salmon from recreational fishing activities, because:
- neither the Acquirer nor the Vendor are involved in the sale of mature salmon from recreational fishing activities. As such, there is no opportunity for SSNZ to leverage market power and substantially lessen competition in this market in the factual scenario; and
 - mature salmon from salmon farms and mature salmon from recreational fishing activities are not viable substitutes, and so SSNZ would be unlikely to have an incentive to foreclose supply of smolt to recreational fishing organization customers.

Geographic Dimension

48. Smolt is not imported into New Zealand and the importation of mature farmed salmon is atypical.
49. In respect of the current Application, NIWA supplies smolt to salmon farmers and recreational fishing organisations located throughout the South Island from Silverstream, which is situated near Christchurch. Salmon farmers and recreational organisations interviewed by the Commission advised that they purchase smolt and eyed-ova from a number of different hatcheries, which are geographically dispersed throughout the South Island.
50. The Commission notes that there are:
- no hatcheries or salmon farms located in the North Island; and
 - no salmon rivers in the North Island so no smolt is supplied to fish and game organisations in the North Island.
51. Accordingly, the Commission is of the view that the geographic scope of the smolt markets is the South Island.

52. In respect of the mature farmed salmon market, salmon farmers routinely supply mature farmed salmon to wholesale customers on a national basis. The Commission considers that the mature farmed salmon market is national in scope.

Conclusion on Market Definition

53. For the purpose of assessing the competition effects of the proposed acquisition, the Commission considers the relevant markets to be:
- the South Island market for the production and wholesale supply of salmon smolt (the smolt market); and
 - the national market for the production and wholesale supply of mature salmon from salmon farms (the mature farmed salmon market).

FACTUAL AND COUNTERFACTUAL

Factual

54. When assessing the competitive impacts of a merger, the Commission compares the likely situation with the merger (the factual) with the likely situation without the merger (the counterfactual).
55. Post-acquisition, Silverstream would be owned and operated by SSNZ. As SSNZ itself does not currently own any salmon hatcheries, the proposed acquisition would not result in any horizontal aggregation. The Commission notes that two of SSNZ's shareholders, Sanford and Island Aquafarms, operate their own vertically-integrated salmon hatcheries.
56. All of SSNZ's shareholders operate in the downstream mature farmed salmon market. To this extent, there could be scope for enhanced vertical effects in the factual scenario.
57. SSNZ advised the Commission that, as per conditions of the sale and purchase agreement, post-acquisition it must continue to supply salmon smolt to the salmon industry (i.e., both existing and future purchasers) on a commercial basis. The Commission further considers the provisions of the sale and purchase agreement in the 'Countervailing Power' section of this Decision.

Counterfactual

NIWA's View of the Counterfactual

58. Kate Thomson, Chief Financial Officer, NIWA advised the Commission that following a review of Silverstream in 2006, NIWA concluded:
- NIWA's core business is research and the Silverstream facility had essentially become a commercial production facility – very little research was being carried out by NIWA;
 - []; and
 - [].
59. NIWA stated that for these reasons, it considered that its operations at Silverstream no longer fall within its operating framework. Subsequently, NIWA decided to divest itself of the Silverstream facility.
60. NIWA, along with Akaroa Salmon, Isaac Salmon, and Fish & Game, advised the Commission that a secure and guaranteed annual supply of high quality

salmon smolt is crucial to the on-going operations of Silverstream's existing customer base. NIWA therefore considers the acquisition of Silverstream by a purchaser that has industry knowledge and experience, to ensure that Silverstream is run successfully, would be the best possible outcome for the salmon industry.

61. Other than SSNZ, there are a number of parties already involved in the salmon industry in New Zealand that have expressed an interest in acquiring Silverstream:
 - [];
 - [];
 - [];
 - [];
 - []; and
 - parties from outside of the salmon industry.
62. NIWA advised the Commission that it [].
63. In any case, NIWA stated that in the end only SSNZ was prepared to follow through to the end to negotiate an agreement.
64. A number of salmon farmers interviewed by the Commission considered the likely counterfactual scenario to be that NIWA would close down Silverstream. []. Moreover, NIWA advised that such a closure would expose it to extreme political pressure initiated by the salmon farm and recreational fishing organisation customers of Silverstream, whose businesses would effectively be ruined, if deprived of smolt.

Other Parties' View of the Counterfactual

65. During the course of its investigation, the Commission spoke with a number of parties that had considered the prospect of purchasing Silverstream, should the proposed acquisition not proceed for any reason.
66. [] decided against pursuing the deal because of the provisions within the sale and purchase agreement, which state that the purchaser must continue to supply salmon smolt to existing customers and new entrants.
67. [] reviewed the opportunity to purchase Silverstream but decided against submitting a formal offer. [] considered that it could not justify the level of investment required upgrade the site to its standards, together with the ongoing management that would be required to maintain the industry relationships that would be required under certain terms of the sale and purchase agreement.
68. []
69. [] said they would consider purchasing Silverstream if the proposed acquisition did not proceed for any reason. [] both advised the Commission that they would continue supplying existing customers as per the provisions of the sale and purchase agreement.

The Commission's View of the Counterfactual

70. Based on the evidence before it, the Commission considers that in the counterfactual, it is unlikely that Silverstream would close. Rather, there are a

number of likely interested purchasers with the expertise to continue running the hatchery on a commercial basis; NIWA could chose to divest itself of Silverstream by selling to one of these parties.

71. The Commission notes that the acquisition of Silverstream by some of these alternative purchasers, [] could result in considerable horizontal aggregation in the smolt market. In this instance, it might be argued that the counterfactual may give rise to a less competitive outcome than the factual.
72. Accordingly, the Commission considers the relevant counterfactual scenario to be one in which Silverstream would be acquired by a third party that would not give rise to a substantial lessening of competition.

COMPETITION ANALYSIS

Unilateral Effects

73. The current Application involves the acquisition of assets at one functional level (i.e., the Silverstream hatchery) by industry participants that operate at another functional level (i.e., salmon farmers that are shareholders in SSNZ). In considering whether SSNZ would face competitive constraint in the smolt market in the factual, the Commission is assessing whether the shareholders of SSNZ would be able to leverage market power into the downstream mature farmed salmon market and give rise to a substantial lessening of competition.

Existing Competition

74. The estimated market shares for the smolt market are set out in Table 2 below. The Commission has estimated market shares using the number of smolt produced in the 2008 breeding season.

Table 2. Estimated Market Shares for the Smolt Market

Hatchery	Number of Smolt Produced	Market Share (%)
Island Aquafarms	[]	[]%
Silverstream	[]	[]%
Sanford	[]	[]%
NZKS	[]	[]%
Fish & Game	[]	[]%
Total	[]	100%

Source: Industry Participants

75. Table 2 demonstrates that currently, Silverstream is the [], with a market share of []%. SSNZ itself does not presently operate any hatcheries; Silverstream's market share will remain unchanged in the factual scenario.
76. None of the industry participants interviewed by the Commission expressed concerns regarding the proposed acquisition; as amongst other factors, there are a number of hatcheries from which they currently source smolt, and they could continue to do so in the factual scenario.
77. Table 2 indicates that the largest producer of smolt is NZKS, which has a market share of []%. NZKS advised the Commission that it primarily produces smolt for its own use, although it does supply smolt to recreational fishing organisations. It has never commercially supplied smolt to other salmon farmers, because it is protective of the investment it has made in its

broodstock development programme. However, NZKS said that if extenuating circumstances arose so that salmon farmers could not source smolt from Silverstream, e.g., flood damage or disease, it would supply the industry on a commercial basis.

78. Two of SSNZ's shareholders, Sanford and Island Aquafarms, also operate their own vertically-integrated salmon hatcheries. Table 2 shows that Sanford has a []% market share, and Island Aquafarms has a []% market share. The Commission has considered the ability of these firms to act as independent competitors to Silverstream, post-acquisition.
79. Island Aquafarms and Sanford advised the Commission that they decided to take a shareholding in SSNZ for the same reason that they currently acquire smolt from Silverstream – to diversify risk and alleviate any production constraints at their own hatcheries. Neither of these parties indicated that taking a shareholding in the Acquirer would inhibit their ability to continue supplying smolt on a commercial basis in the factual.
80. Sanford acquires [] smolt from Silverstream each year — approximately []% of its requirement. Whilst its hatcheries are capable of producing sufficient smolt to meet its own requirements, Sanford considers that maintaining an independent source of smolt allows it to mitigate any risks associated with a disaster at one of its own hatcheries.
81. It is for this reason that Sanford has usually had a surplus supply of [] smolt that it has then on-sold to other salmon farmers, including Mt Cook Salmon, Benmore Salmon, and High Country Salmon. It also supplies smolt to recreational organisations. []. It is therefore likely to continue producing smolt in volumes surplus to its needs in both the factual and counterfactual scenarios.
82. Sanford is of the view that it would continue to face incentives to supply surplus smolt on a commercial basis to the industry, post-acquisition. There have been occasions in the past when it could not find purchasers for all of its residual volumes of smolt, and left with no other alternative, it released its surplus smolt into rivers. This essentially boosts stocks of 'wild' salmon for recreational anglers at no cost to the recreational organisations. For example, it has released smolt into the Otago Harbour, Bluff Harbour, and the Waitaki lakes.
83. Island Aquafarms purchased [] smolt from NIWA this year, but has also established its own hatchery. Island Aquafarms anticipates producing smolt excess to its needs in both the factual and counterfactual scenario, and would likely sell this surplus on a commercial basis to other industry participants. [].
84. To this end, the Commission considers that in the factual, it is likely that Island Aquafarms and Sanford would likely continue to produce smolt excess to their requirements, and would continue to face incentives to continue supplying this smolt in competition with Silverstream.
85. Fish & Game also operates hatcheries, although the Commission notes that these hatcheries have the smallest output; Table 2 shows that Fish & Game has a market share of []%. It does not supply smolt on a commercial basis. Rather, smolt is produced for release to waterways to support recreational fishing activities.

86. Fish & Game is Silverstream's largest recreational organisation customer. It advised the Commission that it considers it has a good relationship with SSNZ and has no concerns with supply of smolt in the factual scenario. It does not compete against SSNZ or SSNZ's shareholders, and its smolt are raised off-season when space is not a constraint, i.e., when Silverstream is not producing smolt for salmon farmers.

Expansion of Existing Competitors

87. Industry participants advised the Commission that area and volume of water in the grow-out facility in any smolt hatchery is the major constraint that determines the number of smolt able to be produced.
88. Island Aquafarms advised the Commission that hatcheries could increase their output using existing infrastructure by growing more smolt to a smaller maximum size (e.g., 5g instead of 15g). However, the Commission notes that not all customers would be able to accept smaller-sized smolt, as their salmon farms are not set up to support and on-grow smaller-sized smolt.
89. Beyond implementing this strategy, a hatchery would need to expand its output by increasing the grow-out area and volume of water by adding additional tanks or raceways. None of the parties interviewed by the Commission considered this to be particularly onerous. SSNZ itself advised the Commission that it intends to increase the size of its grow-out area at Silverstream by [].

Conclusion on Existing Competition

90. The Commission considers that post-acquisition, SSNZ would continue to face constraint from existing competition. Further, these existing competitors could respond to any attempted exercise of market power within a one-year timeframe, by expanding and increase their smolt output.

Potential Competition

91. An acquisition is unlikely to result in a substantial lessening of competition in a market if the businesses in that market continue to be subject to real constraints from the threat of market entry. The Commission's focus is on whether businesses would be able to enter the market and thereafter expand should they be given an inducement to do so, and the extent of any impediments they might encounter should they try.

Conditions of Entry

92. The likely effectiveness of the threat of new entry in preventing a substantial lessening of competition in a market following an acquisition is determined by the nature and effect of the aggregate barriers to entry into that market.
93. Industry participants advised the Commission that there are several key requirements to establishing a new hatchery:
- consents and a suitable site with quality low temperature water and suitable flow rates;
 - hatchery infrastructure and equipment; and
 - a supply of ova and milt to initiate production.

94. Most firms advised that entry on a small-scale (i.e., supplying less than 100,000 smolt per annum) would likely cost in the order of \$50-100,000, although Leslie Salmon and Isaac Salmon were of the view that it would be possible to establish a hatchery at a much lower cost.
95. The cost of entry for a large-scale hatchery (i.e., supplying more than 100,000 smolt per annum) would more likely be in the order of \$1-2m.¹¹

The “LET” Test

96. In order for market entry to be a sufficient constraint, entry of new participants in response to a price increase or other manifestation of market power must be:
 - Likely in commercial terms;
 - sufficient in Extent to cause market participants to react in a significant manner; and
 - Timely, i.e., feasible within two years from the point at which market power is first exercised.
97. All industry participants interviewed were of the view that entry would be most likely to be a salmon farmer seeking to vertically-integrate its salmon farm with a hatchery, as they would already have access to a suitable site, with suitable quality and volumes of water, and the necessary consents. Further, an existing salmon farmer would be able to source ova and milt by selecting broodstock from its own stock of mature salmon.
98. In the factual, the majority of Silverstream hatchery’s salmon farmer customers will be SSNZ shareholders. Nevertheless, industry participants were of the view that a shareholding in SSNZ would not necessarily preclude any of these salmon farmers from establishing a hatchery.
99. The Commission notes that there are several examples of recent entry in the smolt markets, which include SSNZ shareholders. On a small-scale, [] for the purpose of self-supply. Large scale entry has also recently occurred; Island Aquafarms established its own hatchery at the same time that it entered the mature farmed salmon market.
100. Akaroa Salmon advised the Commission that even a small-scale new entrant, such as a small salmon farmer establishing its own hatchery to self-supply, would be sufficient in extent to act as a constraint on SSNZ. This is because Silverstream has so few customers that the loss of even one of these customers would detrimentally affect its overall profitability.
101. In addition, salmon farmers interviewed by the Commission were uniform in their view that by leveraging off their existing sites and consents, entry could occur within a two year time period.

¹¹ Industry participants interviewed by the Commission were uniform in their view that a new large scale salmon farm, which would produce in the order of 1,000t of farmed mature salmon per annum, would require its own vertically-integrated hatchery. This is because the volumes of commercially available smolt would not be able to sustain entry of a customer this size. The Commission notes that this situation would be no different in the factual or counterfactual.

Conclusion on Potential Competition

102. The Commission considers that the conditions of entry into the smolt market are not such as to deter new entry in the event of any existing firm attempting to exercise market power.

Countervailing Power

103. In some circumstances the potential for the combined entity to exercise market power may be sufficiently constrained by a buyer or supplier to eliminate concerns that an acquisition may lead to a substantial lessening of competition.
104. The Applicant submitted that, as per conditions of the sale and purchase agreement, it must continue to supply salmon smolt to the industry on a commercial basis, post-acquisition.¹²
105. NIWA advised the Commission that it introduced this clause to ensure that existing and potential customers of Silverstream would be guaranteed a supply of smolt, post-acquisition.
106. The Contracts (Privity) Act 1982 allows a person who is not a party to contract to enforce a promise made in the contract for the benefit of that person. [].
107. The enforcement of this clause could require a firm, which is not party to the sale and purchase agreement *per se*, taking action through legal processes. In general, this would unlikely be a favourable substitute for the constraint otherwise posed by competitive processes. Given this view, the Commission considers it is not necessary to determine the merits of the legal arguments that might be raised by SSNZ, or by any of Silverstream's customers.
108. In any case, the Commission is of the view that customers of Silverstream have other avenues through which they could exercise countervailing power.
109. As discussed above, small-scale entry into the smolt market by a salmon farmer, could occur at a relatively low cost and by leveraging off existing infrastructure. In addition, this would be likely, timely, and sufficient in extent to act as a constraint on SSNZ post-acquisition. The Commission is, therefore, of the view that salmon farmers could also exercise countervailing power by choosing to self-supply.
110. In respect of recreational organisations, the Commission notes that these organisations generally obtain smolt from a range of sources, including selfsupply.¹³ The Commission considers that recreational organisations could exercise countervailing power by purchasing greater volumes from one of SSNZ's rival hatcheries, or by expanding the output of their own hatcheries.
111. In addition, the Commission considers that recreational fishing organisations, with a large number of licence holders, would be able to generate considerable public interest and pressure on SSNZ, if prices for the supply of Silverstream smolt for release into rivers became unacceptably high.

¹² Clause 10 of the Sale and Purchase Agreement between National Institute of Water and Atmospheric Research Limited (NIWA) and Salmon Smolt New Zealand Limited (SSNZ).

¹³ E.g., Fish & Game has its own vertically-integrated hatcheries.

Conclusion on Countervailing Power

112. The Commission concludes that Silverstream's customers would have sufficient countervailing power to constrain an exercise of market power by SSNZ in the factual scenario.

Coordinated Effects

113. The Commission is of the view that where an acquisition materially enhances the prospects for any form of coordination between businesses in the market, the result is likely to be a substantial lessening of competition. In broad terms, effective coordination can be thought of as requiring three ingredients: collusion, detection, and retaliation.
114. There are a number of principal market structure and conduct features that the Commission takes into account when assessing the likelihood of collusive behaviour, including seller concentration, speed of new entry, fringe competitors, and the characteristics of buyers.
115. As discussed in the 'Existing Competition' section of these reasons, the Commission considers that hatchery operators would likely face incentives to continue competing against one another to supply smolt on a commercial basis. In addition, these firms would face constraint in the form of the threat of potential competition, and the countervailing power of customers.
116. The Commission notes that, in this fact scenario, there are not the normal incentives that would facilitate collusion, as the greater proportion of smolt produced would be by firms for their own use.
117. Further, as the transaction in question is merely an ownership change, and not accompanied by horizontal aggregation, it is unlikely that the scope for coordinated effects would be enhanced in the factual, as compared to the counterfactual.
118. For these reasons, the Commission considers that firms operating within the smolt market would likely be impeded from forming collusive arrangements, post-acquisition. Given this, the Commission has not undertaken an analysis of the ability of potential colluders to detect and discipline one another.
119. Accordingly, the Commission concludes that the proposed acquisition would not be likely to enhance the scope for coordinated effects in the smolt market.

Vertical Effects

120. Vertical acquisitions are those that involve businesses operating at different functional market levels in the production of a particular good or service. The current Application involves the acquisition of assets at one functional level (i.e., Silverstream) by industry participants that operate at another functional level (i.e., salmon farmers that are shareholders in SSNZ).
121. In this regard, vertical integration could give rise to a number of competition concerns, including:
- facilitation of coordinated effects;
 - increased entry barriers; and
 - access concerns.

122. The Commission has, therefore, considered whether the proposed acquisition would enhance the scope for SSNZ (and its shareholders) to substantially lessen competition in the downstream mature farmed salmon market.

Facilitation of Coordinated Effects

123. The Commission has assessed whether the vertical integration that would occur as a result of the proposed acquisition could enhance the ability for salmon farmers to coordinate their behaviour in the downstream salmon market. This is because not only are the shareholders of SSNZ competitors in the downstream mature farmed salmon market, but in the factual, the majority of salmon farms will be vertically-integrated with a hatchery.
124. There are a number of factors that may indicate that collusion is possible. Mature farmed salmon is generally undifferentiated, production technology is static, new entry appears to be slow, and competitors may be constrained in their attempts to respond to any coordinated attempt to raise prices, due to the difficulties in accelerating the rate at which salmon is harvested.¹⁴
125. Table 1 in the ‘Industry Background’ section of this Decision provides details about the firms that operate in the mature farmed salmon market. Table 1 indicates that, presently, the mature farmed salmon market is characterised by two large firms, which together account for a large majority of mature farmed salmon produced in New Zealand — NZKS has a []% market share and Sanford has a []% market share. The remaining salmon farmers, including the other five SSNZ shareholders, are small niche operators that generally target boutique food service customers such as restaurants, and mail-order domestic customers. Table 1 shows that each of these firms has a market share of [].
126. High Country Salmon was of the view that the greatest competitive tension in the mature farmed salmon market is between Sanford and NZKS. Other industry participants remarked that NZKS is a vigorous competitor, and its scale, relative to other industry participants, means that NZKS is essentially the price-setter against which all other firms in the market strive to compete.
127. NZKS is not party to the proposed acquisition. In the factual, NZKS would remain an independent competitor to SSNZ and SSNZ’s shareholders. To this end, the scope for coordinated effects in the mature farmed salmon market is unlikely to be enhanced in the factual, relative to the counterfactual scenario.
128. The Commission also notes that currently, the industry has visibility of smolt prices charged by Silverstream. Joint ownership, as would be the case in the factual scenario, would not provide any new information, which would facilitate coordinated behaviour, to the shareholders of SSNZ. Furthermore, the cost of smolt relative to the total cost of salmon production is minor (i.e., approximately 0.7%).
129. Accordingly, the Commission considers that the proposed acquisition is unlikely to enhance the scope for coordinated effects in the downstream mature farmed salmon market.

¹⁴ As discussed in the ‘Industry Background’ section of this Decision, salmon does not reach maturity until it is three years old, and so it is not possible to accelerate a harvest.

Increased Entry Barriers

130. Vertical integration may raise barriers to entry by requiring an entrant at one functional level to enter simultaneously at the other, foreclosed level. In the context of the proposed acquisition, this would imply that an entrant at the downstream mature farmed salmon market may have to enter with its own vertically-integrated salmon hatchery.
131. As discussed in the ‘Potential Competition’ section of this Decision, the conditions required for a small salmon farm to establish a vertically-integrated hatchery are not particularly onerous. Any new large scale salmon farm, which would produce in the order of 1,000t of farmed mature salmon per annum, would need to establish its own vertically-integrated hatchery. The Commission notes that this situation would be no different in the factual or counterfactual, because the volumes of commercially available smolt would not be able to sustain entry of a customer this size in either scenario.
132. In any case, industry participants indicated that the incremental cost of establishing a hatchery in conjunction with a new salmon farm is minor in relation to the cost of establishing a salmon farm.¹⁵

Access Concerns

133. A vertically-integrated business that owns an essential facility to which others need access in order to compete at a downstream level has the ability to discriminate in favour of its own affiliated activities in the downstream market. In the context of the current Application, the Commission has assessed whether the factual scenario would give SSNZ an enhanced ability to foreclose competition in the downstream mature farmed salmon market by interfering with the supply of smolt to independent customers of Silverstream.
134. The Commission considers that, in the factual, SSNZ is unlikely to attain market power in the upstream smolt market — as previously discussed in this Decision, the Commission considers that SSNZ would face competitive constraint in the form of:
- existing competition, and these existing competitors have the ability to expand their output;
 - the threat of new entry into the smolt market; and
 - in the event of an exercise of market power by SSNZ, customers of Silverstream could exercise countervailing power by choosing to reduce the number of smolt purchased from Silverstream, or by self-supplying.
135. In any event, the only remaining customers of Silverstream, which would not be SSNZ shareholders, are recreational organisations. The Commission is of the view that SSNZ would not face incentives to foreclose supply to recreational organisations, as these firms are not direct competitors of SSNZ’s shareholders in the downstream mature farmed salmon market.
136. To this end, the Commission considers that post-acquisition, SSNZ would be unable to leverage market power into the mature farmed salmon market; the proposed acquisition would be unlikely to give rise to access concerns in the mature farmed salmon market.

¹⁵ Estimates provided to the Commission indicate that the cost of a hatchery would be approximately 10% of the cost of a commensurate salmon farm.

Conclusion on Vertical Effects

137. The Commission considers that the proposed acquisition would unlikely enhance the scope for SSNZ (and its shareholders) to substantially lessen competition in the downstream mature farmed salmon market.
138. Accordingly, the Commission concludes that the proposed acquisition would be unlikely to enhance the scope for vertical effects.

OVERALL CONCLUSION

139. The Commission concludes that SSNZ would continue to face constraint in the smolt market from:
- existing competitors, who could readily expand their smolt output;
 - the threat of potential competition by new entrants into the smolt market; and
 - the countervailing power of customers, which could self-supply in the event of an exercise of market power by SSNZ.
140. It is also for these reasons that the Commission considers that the proposed acquisition would be unlikely to enhance the scope for coordinated conduct in the smolt market.
141. The Commission considers that it is unlikely that the proposed acquisition would enhance the scope for vertical effects. As outlined above, SSNZ is likely to face competitive constraint, and therefore unlikely to attain market power in the smolt market post-acquisition. Without market power, it is unlikely that the shareholders of SSNZ would have the ability to influence the downstream mature farmed salmon market and substantially lessen competition.
142. Therefore, the Commission is satisfied that the proposed acquisition will not have, nor would be likely to have, the effect of substantially lessening competition in any market.

DETERMINATION ON NOTICE OF CLEARANCE

143. Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Salmon Smolt New Zealand Limited (SSNZ) of the assets of Silverstream from the National Institute of Water and Atmospheric Research Limited (NIWA).

Dated this 30th day of October 2008

Paula Rebstock
Division Chair
Commerce Commission

APPENDIX 1: RELEVANT PARTIES

Key Parties

Salmon Smolt New Zealand Limited (SSNZ)	Acquirer
National Institute of Water and Atmospheric Research Limited (NIWA)	Target

Salmon Farmers

Akaroa Salmon Company Limited (Akaroa Salmon)	Shareholder in SSNZ
Benmore Salmon 2001 Limited (Benmore Salmon)	Shareholder in SSNZ
High Country Salmon Limited (High Country Salmon)	Shareholder in SSNZ
Isaac Salmon Farm Limited (Isaac Salmon)	Withdrawn from SSNZ
Island Aquafarms Limited (Island Aquafarms)	Shareholder in SSNZ
Leslie Salmon Limited (Leslie Salmon)	Withdrawn from SSNZ
Mount Cook Salmon Limited (Mt Cook Salmon)	Shareholder in SSNZ
The New Zealand King Salmon Company Limited (NZKS)	Competitor
Sanford Limited (Sanford)	Shareholder in SSNZ

Recreational Organisations

Fish & Game - North Canterbury (Fish & Game)	
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