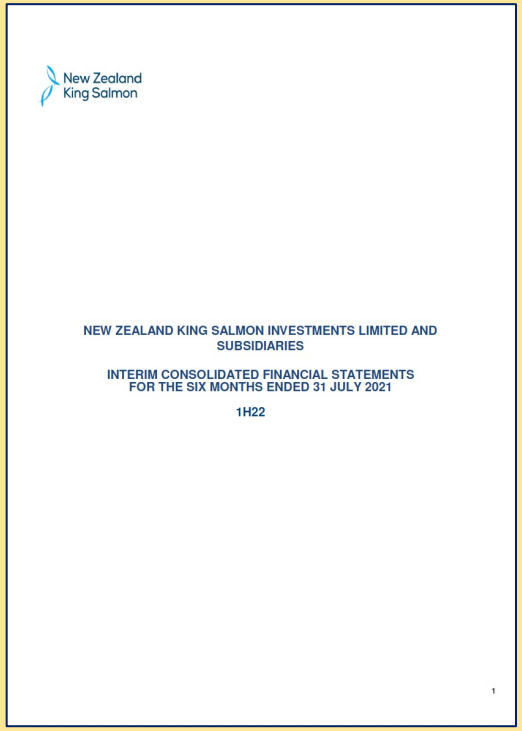
NZKS Application U190438

An application to establish a new salmon farm within a 1,000 ha site located approximately 5 kilometres due north of Cape Lambert.

Wendy McGuinness

Part 1: Interim Consolidated Financial Statements for the Six Months ended 31 July 2021



New Zealand King Salmon

NEW ZEALAND KING SALMON INVESTMENTS LIMITED AND SUBSIDIARIES

INTERIM CONSOLIDATED FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED 31 JULY 2021

1H22

1

15. DISAGGREGATION OF REVENUE

Revenue by Product Group	UNAUDITED 31 July 2021 $000	UNAUDITED 31 July 2020 $000
Whole Fish	40,055	31,506
Fillets, Steaks & Portions	17,142	13,342
Wood Roasted	6,245	5,779
Cold Smoked	12,013	11,927
Other	4,640	4,462
Total	**80,095**	**67,016**

Revenue by Brand	UNAUDITED 31 July 2021 $000	UNAUDITED 31 July 2020 $000
Ōra King	26,989	24,917
New Zealand King Salmon	32,323	21,907
Regal	15,127	15,307
Southern Ocean	4,479	3,870
Omega Plus	1,177	1,015
Total	**80,095**	**67,016**

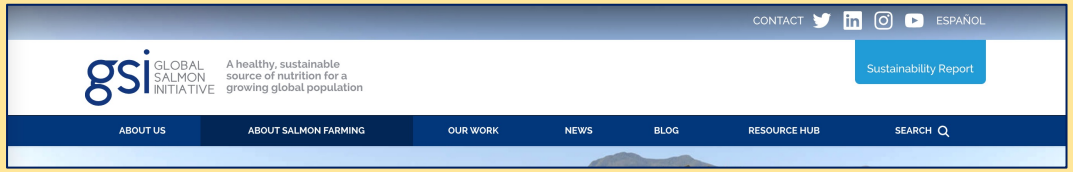
Revenue by Market	UNAUDITED 31 July 2021 $000	UNAUDITED 31 July 2020 $000
New Zealand	33,294	28,806
North America	29,778	25,880
Australia	5,076	3,930
Japan	6,032	1,926
China	366	1,204
Europe	2,543	1,547
Other	3,006	3,723
Total revenue	**80,095**	**67,016**

Sales net of settlement discounts to two major customers for the 6 months period ended 31 July 2021 totalled $ 8.2m or 10.27% of total gross revenue, (6 months to 31 July 2020 one major customer totalled $8.6m or 12.92% of total gross revenue).

Fair value risk and sensitivity

The Group is exposed to financial risks relating to the production of salmon stock including increasing climate change volatility, climatic events, disease and contamination of water space.

The Group seeks to produce and market the highest quality salmon products. Extensive monitoring and benchmarking is carried out to provide optimum conditions and diets to maximise fish performance during the grow out cycle. Sales are maintained in a range of brands, products and markets to maximise returns from the quality mix of fish harvested. The Group has insurance to cover some of the risks relating to the livestock.



Fish Mortality at New Zealand King Salmon, New Zealand

Fish mortality is a key measure used to evaluate fish health during production. We have chosen to measure mortality using a 12 month rolling mortality rate. This measure calculates mortality for the last 12 months (January – December) as a proportion of the estimated number of fish in the sea in the last month of the year (adjusted for harvest and mortalities).

It is calculated as:

$$\text{12 months rolling mortality} = \frac{\text{(total \# of mortalities in sea last 12 months - total \# of culled fish due to illness or similar and not in harvest figures)}}{\text{(closing \# of fish in sea + total \# of mortalities in last 12 months + total \# harvested fish in last 12 months + total \# of culled fish in sea)}} \times 100$$

	King Salmon
2020	14.96%
2019	14.30%
2018	11.56%
2017	6.86%

Wildlife Interactions at New Zealand King Salmon, New Zealand

Protecting the ecosystems in which we operate is integral to how we manage our businesses, and we are committed to reducing negative wildlife interactions through responsible management. Despite our efforts, some wildlife can die as a result of interacting with our farms.

This has been calculated as: Total number of interactions divided by the total number of sites from January to December each year.

The number of fish escapes is shown as the net number following recapture from January to December.

2020

No incidents to report

2019

Date of incident	Species name	No. of fish escaped (after net recapture)	Freshwater or Seawater	Reasons identified for escape	Details of mitigation strategy/corrective actions
18 Jan	King Salmon	2,000	Seawater	Issue with tow and tidal exchange pen was damaged with a net tear.	Tows are only to be used in extreme circumstances for fish health reasons.

2018

No incidents to report

2017

Date of incident	Species name	No. of fish escaped (after net recapture)	Freshwater or Seawater	Reasons identified for escape	Details of mitigation strategy/corrective actions
9 Jul	King Salmon	3,500	Seawater	Ripped Net.	Change in procedure for harvesting from wave master style nets.

23 April 2020:

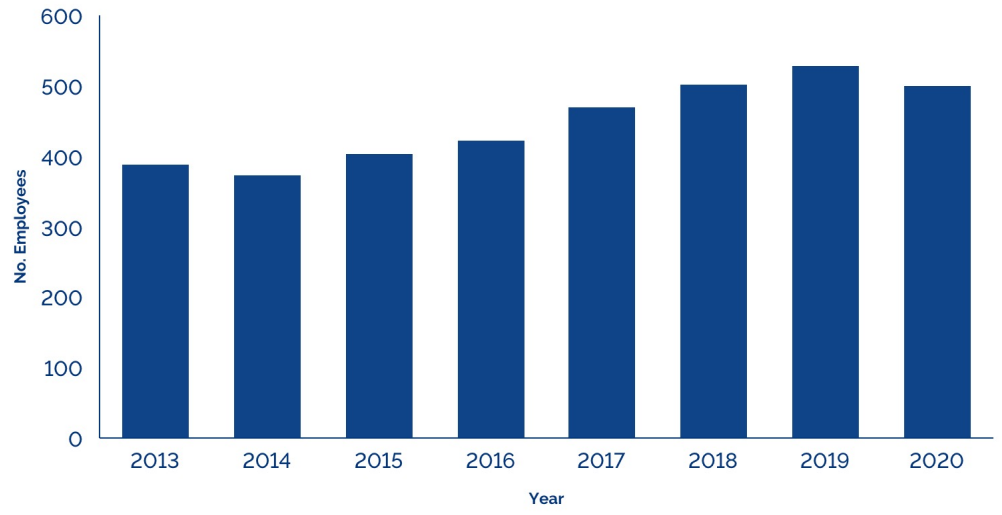
Rosewarne said if approved, NZ King Salmon's open ocean farm was a "shovel ready" project which could increase employment opportunities and contribute majority to the rebound of New Zealand's economy.

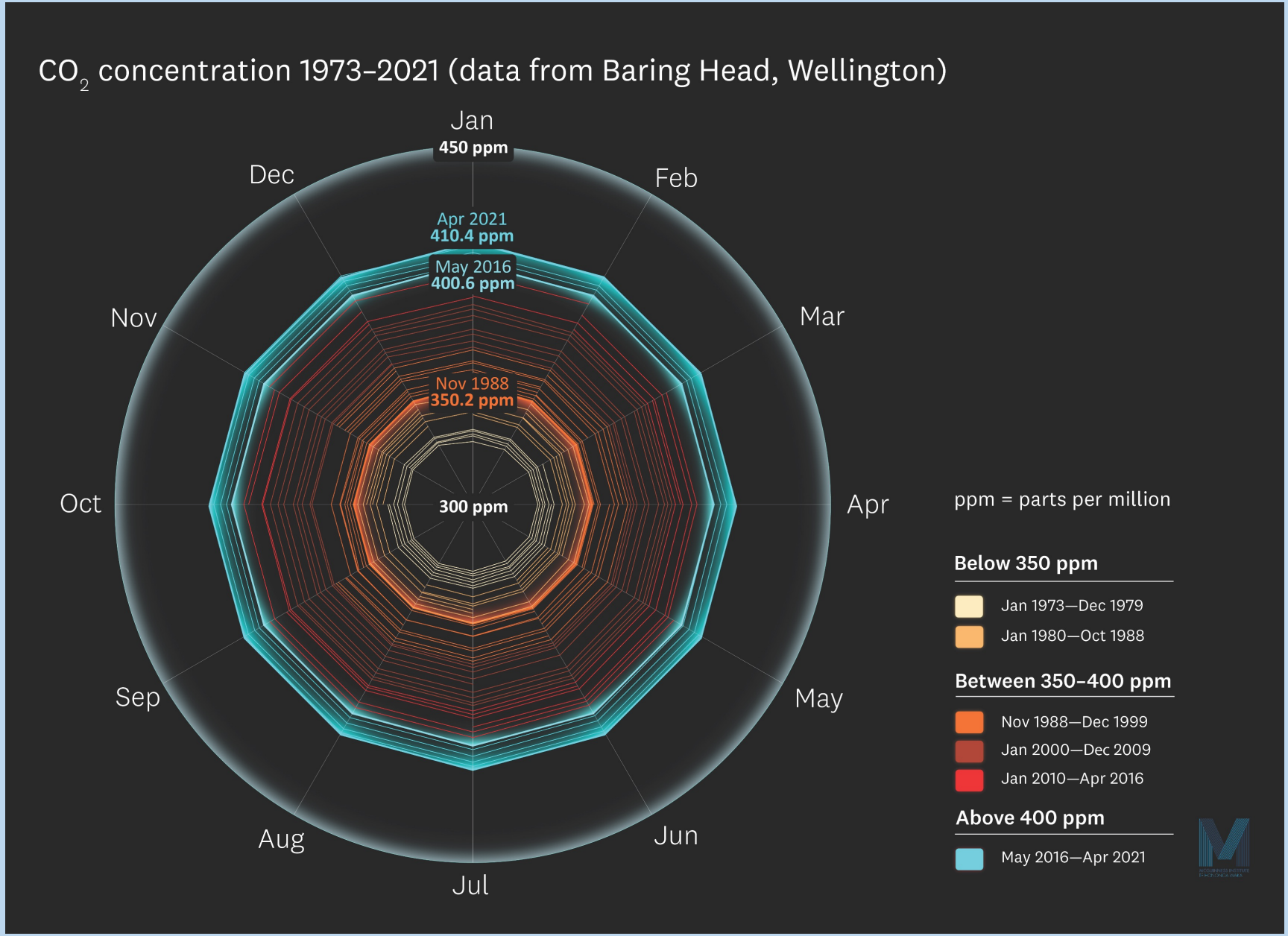
"It would create about 300 jobs on our team, plus flow-ons from that."

Direct Labor at New Zealand King Salmon, New Zealand

GSI member company operations cover many regions, and their employees are a diverse group in terms of both culture and their form of work. Nevertheless, all GSI member companies share a common set of core values that promote fair treatment and safe working conditions for all employees across all their operations.

Direct labor is calculated as full-time equivalent employees per calendar year.




CO2 concentration 1973–2021 (data from Baring Head, Wellington)
Jan
450 ppm
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Apr 2021
410.4 ppm
May 2016
400.6 ppm
Nov 1988
350.2 ppm
300 ppm
ppm = parts per million
Below 350 ppm
Jan 1973—Dec 1979
Jan 1980—Oct 1988
Between 350–400 ppm
Nov 1988—Dec 1999
Jan 2000—Dec 2009
Jan 2010—Apr 2016
Above 400 ppm
May 2016—Apr 2021

-------- Forwarded Message --------
Subject: RE: Cook Strait average SST for February map
Date: Wed, 20 Oct 2021 00:52:11 +0000
From: Niall Broekhuizen <Niall.Broekhuizen@niwa.co.nz>
To: joophan@jakro.nz <joophan@jakro.nz>
CC: Matt Pemberton <mpemberton@doc.govt.nz>

Kia ora Hanneke

In response to my inquiries last night, one of my colleagues produced these two images this morning (see below). He did so using this publicly accessible NIWA web-tool (recently developed by NIWA with support from regional councils through the Envirolink programme and various NIWA research projects funded by MBIE):

https://gis.niwa.co.nz/portal/apps/experiencebuilder/template/?id=9794f29cd417493894df99d422c30ec2

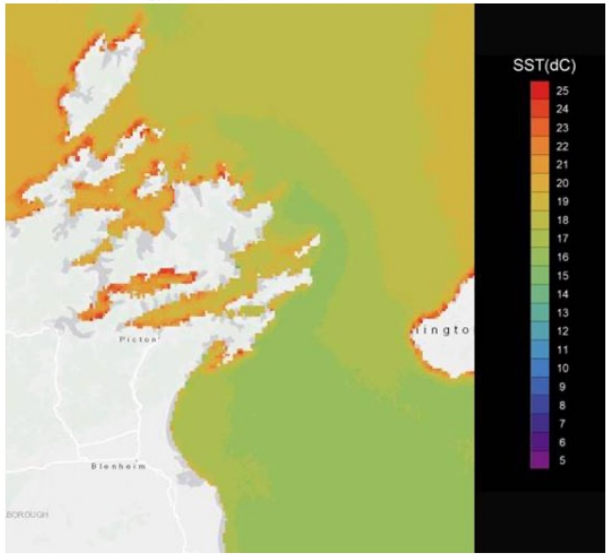
As a demonstration of what can be achieved through the tool (after a bit of practice!), one of my colleagues produced these plots for me this morning. These images were produced in a hurry and at no charge to you. Therefore, NIWA makes no warranties as to their correctness and accepts no liability for any errors that they may contain. Nor do we accept any liability for any decisions (or consequences arising from those decisions) that you are others may make in the light of theimages.

I believe that they are 2002-2020 averages of satellite sensed sea surface temperature for month of February (not sure whether that is 2002-2020 inclusive of exclusive of one or both end-years!). I recognise that you asked for 2010-2020, but I understand that the tool does not offer a facility to easily create averages over sub-periods of the data-set.

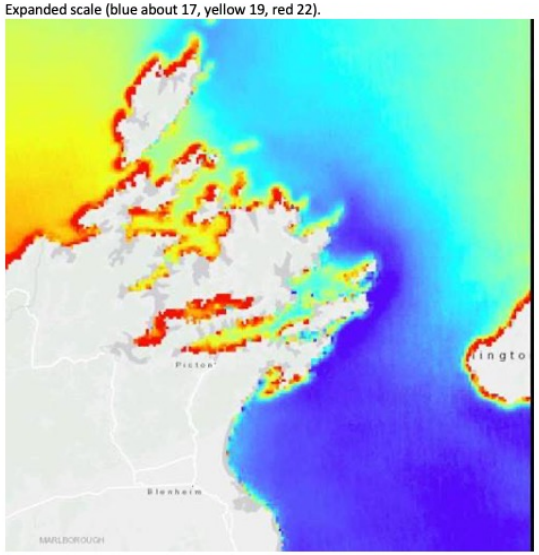
I leave it to you to judge where the Blue Endeavour perimeter sits on the images and what the data imply about either your position or NZKS position. If you do choose to use the images, please acknowledge the NIWA webtool as the ultimate source of the images and please acknowledge that any inferences / arguments that you make based upon them are yours rather than NIWA's.

The web-tool provides some additional background information about the data sources, and instructions on how to use the tool. If you wish to query the data further, you may do so through the web-tool. If you wish to query the data further using the web-tool, you are free to do so subject to the licence terms:

February SST climatology (2002-2020)



Expanded scale (blue about 17, yellow 19, red 22).



Best wishes

Niall

Part 2: Climate-related reporting and impacts

ADDRESSING CLIMATE

As a starting point in understanding our own context, we commissioned a Life Cycle Analysis report to measure our own carbon footprint which we will use to guide our future carbon minimisation steps. The report also contributed to the GHG emission measurement requirements of the Aquaculture Stewardship Council (ASC) Salmon Standard.

Author of our LCA report, Dr Robert Parker, a seafood life cycle assessment specialist: "Compared to other animal protein sources, the GHG performance of New Zealand King Salmon's products falls within the upper range of fishery and aquaculture-derived products and is higher than most assessed poultry systems, but still lower than many livestock alternatives."

Three broodyears, 2013-2015, were assessed across all farm sites and results were presented in two sections: 'to farmgate', which covers our operations from hatcheries to the sea farm gate and 'post farm gate' which relates to the processes involved after salmon leave the farm including processing, packaging and distribution.

Overall, New Zealand King Salmon's emissions per kilogram harvested are:

[based on economic basis for allocation according to European Union Product Environmental Footprint guidelines. LCA is representative of outcomes at December 2017.]

The report discusses the three main sources of carbon emissions. Parker summarises "Marine net-pen production tends to be less impactful than land-based production due to lower energy requirements to maintain temperature, oxygen, and other environmental conditions (e.g. Liu et al., 2016; Ayer and Tyedmers, 2007). The most consistently effective improvements that NZKS could make to its operations would be achieved through reduction in feed conversion ratios, reductions in animal by-product inclusions in feeds and limitation of air freight where possible."

Summarised on page 31 is an analysis of the major emission sources from the LCA and potential opportunities for reduction.

Efforts in reducing FCR and improving survival will contribute most in reducing our carbon footprint, aligned with current operational priorities. Reducing our reliance on air freight will depend on the proportion of perishable fresh whole salmon sold.

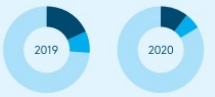
Major emission sources	Constraints to reduction	Opportunities for reduction
Feed Conversion Ratio	Unique nutritional needs of King salmon species	Increased survival through existing operational measures
	Optimal water space	Minimisation of fish oil and fish meal in diet composition
	Feed composition	Single Year Class farming
		Open ocean farming (Blue Endeavour)
Feed (composition) Degree of animal (usually poultry) input inclusion in feeds heavily influences overall impacts (e.g. Parker, 2018; Pelletier et al., 2009)	Unique nutritional needs of King salmon species	Continued improvements in feed outs and digestibility solutions
	Only current alternative to land animal proteins input is increased usage of marine protein, which conflicts with best practice guidelines for feed efficiency	Change of origin in feed
	Speed of feed commercialisation for King salmon species	Feed innovations (algaes, alternative proteins)
	Size of New Zealand salmon industry	Local feed mill
Airfreight	Proportion of fresh whole salmon sold - limited shelf life requires airfreight	Continued optimisation of product portfolio and transport choices
	Freezing equipment	Diversification into shelf-stable and longer shelf life products eg. petfood, smoked salmon
	Perception that 'fresh is best'	New freezing technology to improve quality
	Proportion of geographically distant markets	Low-carbon air transport options

Timeframe: Short Term · Medium Term · Long Term · Ongoing

Feed is one of our largest sources of carbon. We aim to balance nutrition with sustainability. The choice of protein content is most influential:

Reliance on input sources using by-products from land animals (e.g. poultry) carries a higher carbon cost. But the alternative is increased use of fish as inputs. Marine protein is a great source of Omega 3 and sourced from well managed fisheries, however we aim to substitute most of the fish input with land-animal by-products to minimise our use of wild fish, and maximise the use of by-products from human food production.

Average use of fish meal and fish oil in diets / calendar year:



18.1% fish meal
8.1% fish oil

10.4% fish meal
6.0% fish oil

Feed conversion ratio (FCR)

2%

Reduction in 2020, compared to 2019

Broader Climate Risk Assessment

NZKS has commissioned a climate disclosure gap assessment under the likely future reporting framework Taskforce on Climate Related Financial Disclosures (TCFD). The analysis will serve as a useful foundation to decide on a programme of work formalising climate-related governance and management planning and strategy, alongside metrics to measure progress.

Wendy McGuinness

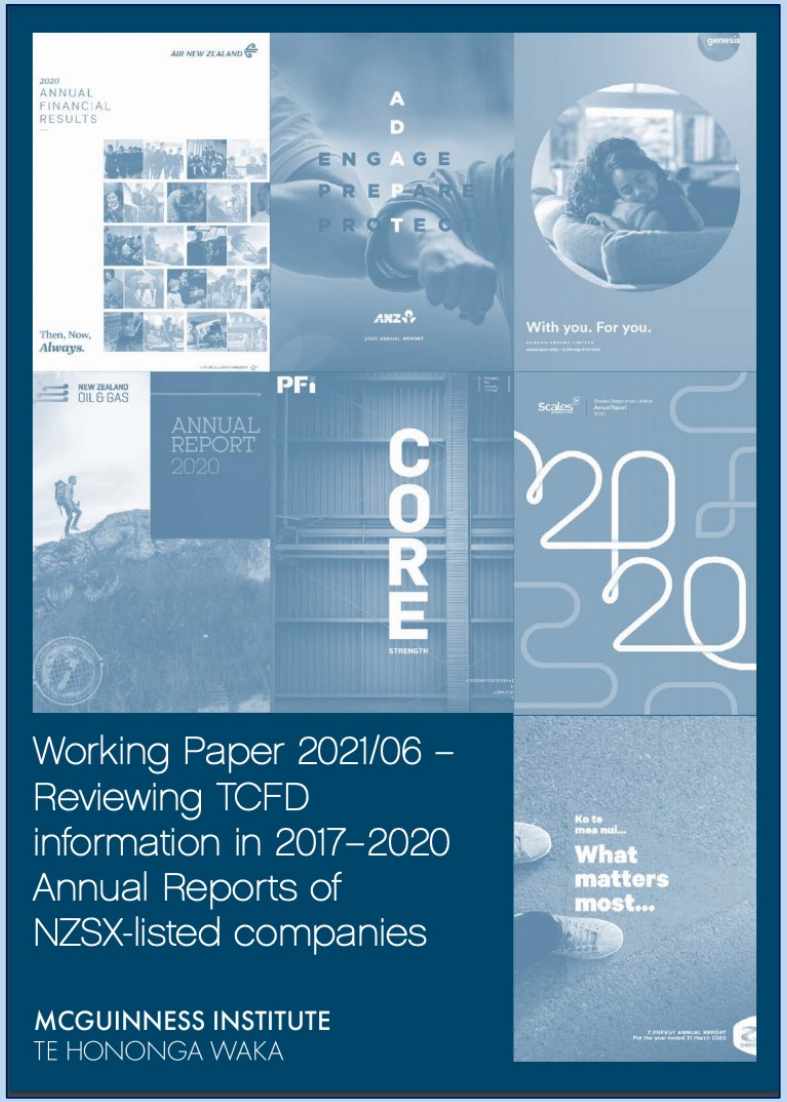


Table 5: TCFD mentioned in annual reports of NZSX-listed companies, 2018–2020

	NZSX-listed companies	2018	2019	2020	Number of pages	See page
1	Air New Zealand	Intent to publish	Intent to publish	Dedicated section	2	21
2	AMP Limited	Partial	No mention	Casual reference	NA	NA
3	ANZ Bank	No mention	Dedicated section	Dedicated section	1	23
4	A2 Milk	No mention	Intent to publish	Intent to publish	NA	NA
5	Contact Energy	Indexed throughout	Indexed throughout	Indexed throughout	1	80
6	Downer Group EDI	Partial	Dedicated section	External link	1	71
7	F&P Healthcare	No mention	No mention	Indexed throughout	1	81
8	Genesis Energy	No mention	No mention	Dedicated section	12	24
9	Mercury	No mention	Indexed throughout	Indexed throughout	1	82
10	Meridian Energy	Partial	External link	External link	1	72
11	Napier Port Holdings	No mention	No mention	Intent to publish	NA	NA
12	New Zealand King Salmon	No mention	No mention	Intent to publish	NA	NA
13	NZ Oil and Gas	No mention	No mention	Dedicated section	20	36
14	Refining NZ	No mention	No mention	Intent to publish	NA	NA
15	New Zealand Exchange	No mention	No mention	Intent to publish	NA	NA
16	Precinct Properties NZ	No mention	No mention	Intent to publish	NA	NA
17	Property for industry	No mention	No mention	Dedicated section	5	57
18	Port of Tauranga	No mention	No mention	Partial	1	84
19	Sanford	No mention	Intent to publish	Intent to publish	NA	NA
20	Scales Corporation	No mention	No mention	Dedicated section	2	62
21	Spark	No mention	No mention	Partial	1	85
22	Summerset	No mention	No mention	Intent to publish	NA	NA
23	Telstra	No mention	No mention	External link	1	73
24	Vector	Casual reference	Casual reference	Intent to publish	NA	NA
25	Westpac	Dedicated section	Dedicated section	External link	5	74
26	Warehouse Group	No mention	No mention	Casual reference	NA	NA
27	Z Energy	No mention	No mention	Dedicated section	5	64
	Total companies that mention TCFD	7	10	27	NA	NA

Strong mention – reports on all core elements
- 1: Dedicated section
- 2: External link
- 3: Indexed throughout

Medium mention
- 4: Partial
- 5: Intent to publish

Light mention
- 6: Casual reference

Appendix 1:
NZSX-listed 2020 Annual Reports –
Dedicated section

Air New Zealand
Annual Report 2020

AIR NEW ZEALAND ANNUAL FINANCIAL RESULTS 2020

CLIMATE-RELATED DISCLOSURES

Taskforce on Climate-related Financial Disclosures (TCFD)

Air New Zealand committed to supporting the TCFD in 2019. For the 2020 financial year, the following disclosures summarise how Air New Zealand aligns with TCFD recommendations.

Governance of Climate-Related Risks and Opportunities

Board's oversight of climate-related risks and opportunities

The Board is ultimately responsible for the Company's response to the risks and opportunities presented by climate-related issues. Board oversight is through its Audit and Risk Committee, which oversees key risks including climate change.

This Committee meets quarterly and, amongst other things, considers updates and assurance on management of strategic risks. The Board is updated following each Committee meeting. Matters meriting Board-level consideration are highlighted or dealt with as standalone Board agenda items.

Strategic climate-related risks are also considered by the Board as part of the Company's Enterprise Risk Management Framework and its Group Risk Profile. Where applicable, climate risk also forms part of the Board's evaluation of material projects and capital investments.

Management's role in assessing and managing climate-related risks and opportunities

Management has day-to-day responsibility for identifying and managing climate-related risks and opportunities. Climate-related risks are identified through the Company's divisional risk registers.

Climate-related workstreams are the responsibility of the full Executive team, the Executive Climate Committee (ECC) and the Sustainability Team. Management focus is given to risk identification, ensuring consistency in approach, and that the climate-related activities are adequately resourced (for example, fuel monitoring/reporting, carbon reduction programme, offsetting, regulatory compliance). The ECC reports key issues to the Audit and Risk Committee.

Environmental sustainability is affirmed as a business principle within the Company's Code of Conduct and its Supplier Code of Conduct, which set expectations of employees and of those the Company does business with.

Strategy

Climate-related risks and opportunities identified over the short, medium, and long-term

Air New Zealand has identified the impact of climate change as one of its top strategic risks. These risks (and opportunities) manifest as either:

- 'physical' risks which are those risks arising from changes in the regional and global climate and the consequential impacts and events. These may include acute physical damage from variations in weather patterns (for example severe storms, coastal/ tidal flooding, drought) or chronic impacts (for example sea level rise and temperature increase); or
- 'transitional' risks which are those risks related to the transition to a lower carbon economy. These include the impact of policy, legal, technological, reputational or market measures associated with climate change.

Physical risks

Short, medium and long-term physical risks (both acute and chronic) to the Company include:

- In the short-term, higher rainfall and storm frequency and intensity, and, in the long-term, sea level rise and tidal/coastal intrusion causing network disruptions and loss of access to airports as well as other aviation support facilities, critical infrastructure, and supply chains;
- Increase in the frequency of extreme weather events altering flight dynamics and operational planning requirements.

Ultimately, extreme weather frequency and intensity may cause sustained operational disruption and network growth limitations, which may adversely impact Air New Zealand's cost base, future revenue, customer experience and reputation.

Transitional risks

The most likely and impactful transitional effects for the Company include:

- Increased regulatory constraints associated with carbon emissions, resulting in higher operating costs. These in turn can impact revenue outcomes. Air New Zealand is cognisant of potential threats and opportunities arising if policy measures are not equivalent across different jurisdictions.
- Changing demand for discretionary air travel due to individuals or businesses seeking to reduce their carbon footprint. This can also create opportunities for the most carbon-efficient airlines to enhance their competitive advantage.

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Task Force on Climate-related Financial Disclosures (TCFD) (2017)

Figure 4

Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

1. TCFD 2021 Status Report (published October 2021)

Appendix 6: Glossary and Abbreviations

ANNUAL OR INTEGRATED REPORTS refer to reports that describe companies' activities for the preceding year (annual reports) or the broader range of measures that contribute to companies' long-term value and the role they play in society (integrated reports).

BOARD OF DIRECTORS (OR BOARD) refers to a body of elected or appointed members who jointly oversee the activities of a company or organization. Some countries use a two-tiered system where "board" refers to the "supervisory board" while "key executives" refers to the "management board."[84]

CARBON FOOTPRINTING is the calculation of the total greenhouse gas emissions caused by an individual, event, organization, service, or product, expressed as carbon dioxide equivalent.

CARBON INTENSITY relates to a company's physical carbon performance and describes the extent to which its business activities are based on carbon usage for a defined Scope and fiscal year.

FINANCIAL FILINGS refer to the annual reporting packages in which companies are required to deliver their audited financial results under the corporate, compliance, or securities laws of the jurisdictions in which they operate. While reporting requirements differ internationally, financial filings generally contain financial statements and other information such as governance statements and management commentary.[85]

FINANCIAL PERFORMANCE refers to income and expenses as reflected on its income and cashflow statements (actual) or potential income and expenses under different climate-related scenarios.

FINANCIAL PLANNING refers to a company's consideration of how it will achieve and fund its objectives and strategic goals. The process of financial planning allows companies to assess future financial positions and determine how resources can be utilized in pursuit of short- and long-term objectives. As part of financial planning, companies often create "financial plans" that outline the specific actions, assets, and resources (including capital) necessary to achieve these objectives over a one-to-five-year period. However, financial planning is broader than the development of a financial plan as it includes long-term capital allocation and other considerations that may extend beyond the typical three-to-five-year financial plan (e.g., investment, research and development, manufacturing, and markets).

FINANCIAL POSITION refers to assets, liabilities, and equity as reflected on its balance sheet (actual) or potential assets, liabilities, and equity under different climate-related scenarios.

GOVERNANCE refers to "the system by which an organization is directed and controlled in the interests of shareholders and other stakeholders."[86] "Governance involves a set of relationships between an organization's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organization are set, progress against performance is monitored, and results are evaluated."[87]

GREENHOUSE GAS (GHG) EMISSIONS SCOPE LEVELS[88]

- Scope 1 refers to all direct GHG emissions.
- Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.
- Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.[89]

IMPLIED TEMPERATURE RISE refers to an estimate of a global temperature rise associated with the greenhouse gas emissions of a single entity (e.g., a company) or a selection of entities (e.g., those in a given investment portfolio, fund, or investment strategy). Expressed as a numeric degree rating, ITR metrics incorporate current

[84] OECD, *G20/OECD Principles of Corporate Governance*, 2015.
[85] Based on Climate Disclosure Standards Board, *CDSB Framework for Reporting Environmental and Climate Change Information*, December 2019.
[86] Cadbury, *Report of the Committee on the Financial Aspects of Corporate Governance*, 1992.
[87] OECD, *G20/OECD Principles of Corporate Governance*, 2015.
[88] World Resources Institute and World Business Council for Sustainable Development, *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)*, March 2004.
[89] World Resources Institute and World Business Council for Sustainable Development, *The Corporate Value Chain (Scope 3) Accounting and Reporting Standard*, April 16, 2014.

GHG emissions or other data and assumptions to estimate expected future emissions associated with the selected entity or entities. Then, the estimate is translated into a projected increase in global average temperature (in °C) above pre-industrial levels that would occur if all companies in corresponding sectors had the same carbon intensity as the selected asset(s).

MANAGEMENT refers to those positions a company or organization views as executive or senior management positions.

NET-ZERO refers to achieving an equal balance between GHG emissions produced and GHG emissions removed from the atmosphere.

RISK is defined in many ways. For purposes of this guidance, risk is defined as the possibility or likelihood that actual results (operational or financial) deviate from expected results in a manner that has an effect on objectives at different levels (such as strategic, organization-wide, project, product, and process). Risk is often characterized by reference to potential events and consequences, or a combination of these, and expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence. Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood. Risk conceptually equals the probability or likelihood of hazardous events occurring multiplied by the company's exposure and vulnerability to the event.

RISK ASSESSMENT consists of risks identification, risk analysis, and risk evaluation. The essential building blocks for comprehensively assessing risk (and establishing metrics) are hazards, exposure, vulnerability, risk, and impacts.

RISK MANAGEMENT refers to a set of processes that are carried out by a company or organization's board and management to support the achievement of its objectives by addressing its risks and managing the combined potential impact of those risks.

RISK PROFILE refers to each company's **risk attitude**, which may be described as risk-averse, risk-neutral, or risk-seeking, a **risk tolerance**, which looks at acceptable/unacceptable deviations from what is expected, and a risk appetite, which looks at how much risk one is willing to accept.

SCENARIO ANALYSIS is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organization to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.

SECTOR refers to a segment of companies performing similar business activities in an economy. A sector generally refers to a large segment of the economy or grouping of business types, while "industry" is used to describe more specific groupings of companies within a sector.

STRATEGY refers to an organization's desired future state. An organization's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organization's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment where it operates.

SUSTAINABILITY REPORT is a report that describes a company's or organization's impact on society, often addressing environmental, social, and governance issues.

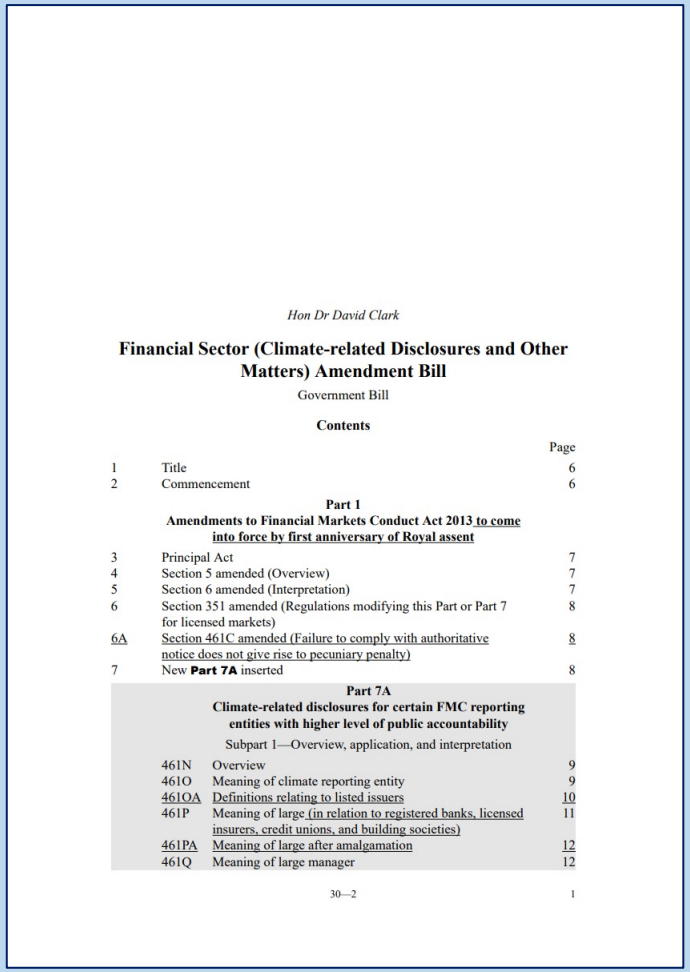
TRANSITION PLAN refers to an aspect of an organization's overall business strategy that lays out a set of targets and actions supporting its transition toward a low-carbon economy, including actions such as reducing its GHG emissions.

USER, or **PRIMARY USER**, refers to investors, lenders, and insurance underwriters. The Task Force recognizes that many other organizations, including credit rating agencies, equity analysts, stock exchanges, investment consultants, and proxy advisors also use climate-related financial disclosures, allowing them to push information through the credit and investment chain and contribute to the better pricing of risks by investors, lenders, and insurance underwriters. These organizations, in principle, depend on the same types of information as primary users.[90]

[90] TCFD, *Final Report*, 2017, pp. 2–3.

2. Financial Sector (Climate-related Disclosures and Other Matters) Amendment (Third Reading 21 October 2021)

NZKS will be required to disclose climate reporting entity



Hon Dr David Clark

Financial Sector (Climate-related Disclosures and Other Matters) Amendment Bill

Government Bill

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	Part 7A **Climate-related disclosures for certain FMC reporting entities with higher level of public accountability**	
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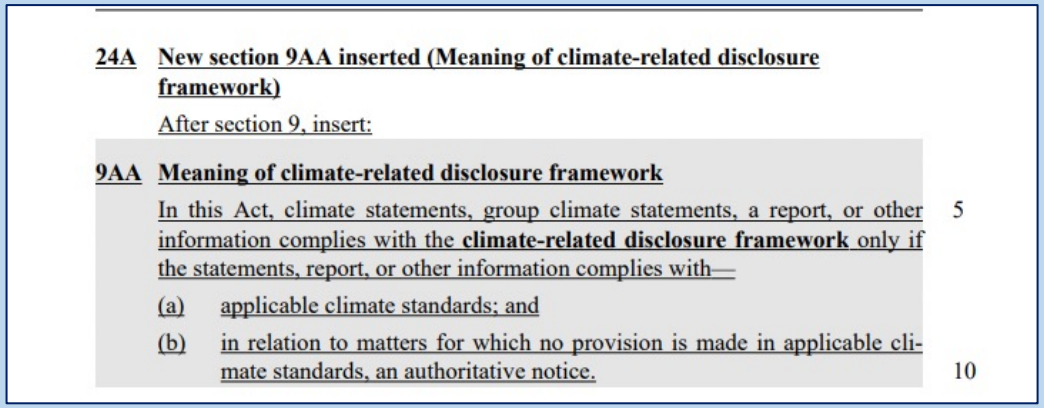


24A New section 9AA inserted (Meaning of climate-related disclosure framework)

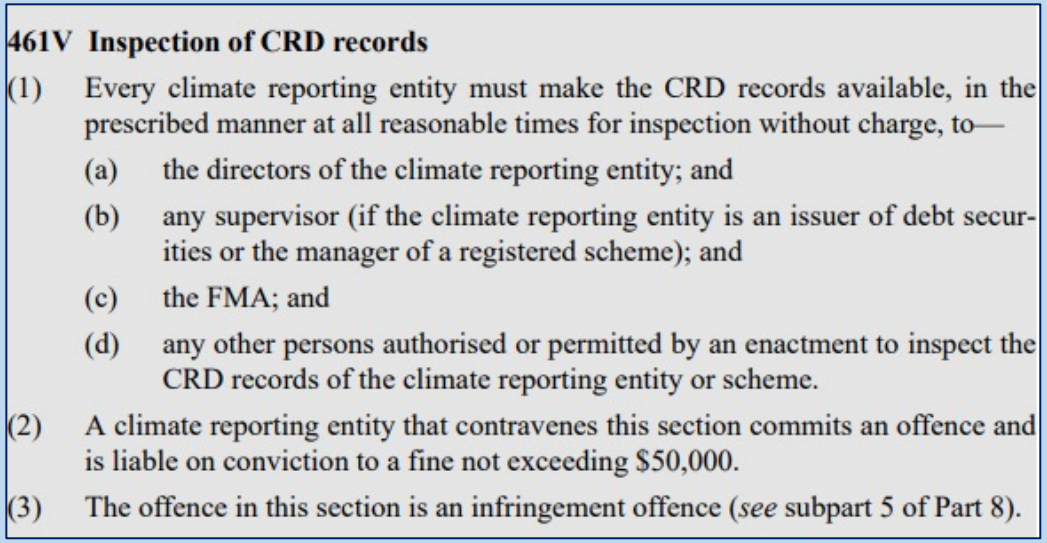
After section 9, insert:

9AA Meaning of climate-related disclosure framework

In this Act, climate statements, group climate statements, a report, or other information complies with the **climate-related disclosure framework** only if the statements, report, or other information complies with—

(a) applicable climate standards; and

(b) in relation to matters for which no provision is made in applicable climate standards, an authoritative notice.



461V Inspection of CRD records

(1) Every climate reporting entity must make the CRD records available, in the prescribed manner at all reasonable times for inspection without charge, to—

(a) the directors of the climate reporting entity; and

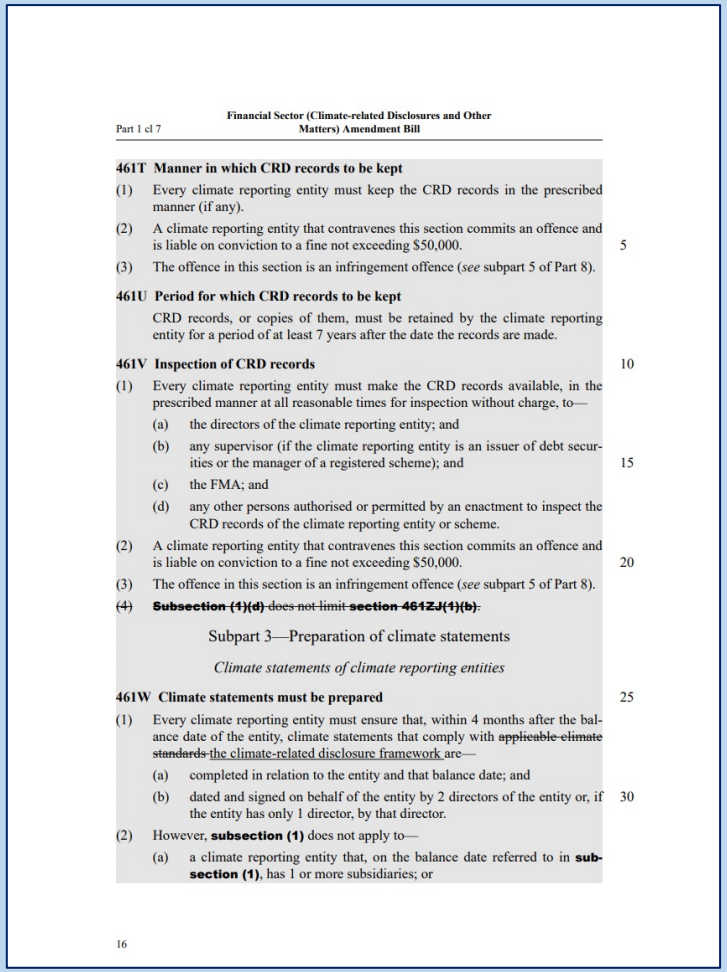
(b) any supervisor (if the climate reporting entity is an issuer of debt securities or the manager of a registered scheme); and

(c) the FMA; and

(d) any other persons authorised or permitted by an enactment to inspect the CRD records of the climate reporting entity or scheme.

(2) A climate reporting entity that contravenes this section commits an offence and is liable on conviction to a fine not exceeding $50,000.

(3) The offence in this section is an infringement offence (*see* subpart 5 of Part 8).



461T Manner in which CRD records to be kept

(1) Every climate reporting entity must keep the CRD records in the prescribed manner (if any).

(2) A climate reporting entity that contravenes this section commits an offence and is liable on conviction to a fine not exceeding $50,000.

(3) The offence in this section is an infringement offence (*see* subpart 5 of Part 8).

461U Period for which CRD records to be kept

CRD records, or copies of them, must be retained by the climate reporting entity for a period of at least 7 years after the date the records are made.

461V Inspection of CRD records

(1) Every climate reporting entity must make the CRD records available, in the prescribed manner at all reasonable times for inspection without charge, to—

(a) the directors of the climate reporting entity; and

(b) any supervisor (if the climate reporting entity is an issuer of debt securities or the manager of a registered scheme); and

(c) the FMA; and

(d) any other persons authorised or permitted by an enactment to inspect the CRD records of the climate reporting entity or scheme.

(2) A climate reporting entity that contravenes this section commits an offence and is liable on conviction to a fine not exceeding $50,000.

(3) The offence in this section is an infringement offence (*see* subpart 5 of Part 8).

~~(4) **Subsection (1)(d)** does not limit **section 461ZJ(1)(b)**.~~

Subpart 3—Preparation of climate statements

Climate statements of climate reporting entities

461W Climate statements must be prepared

(1) Every climate reporting entity must ensure that, within 4 months after the balance date of the entity, climate statements that comply with ~~applicable climate standards~~ the climate-related disclosure framework are—

(a) completed in relation to the entity and that balance date; and

(b) dated and signed on behalf of the entity by 2 directors of the entity or, if the entity has only 1 director, by that director.

(2) However, **subsection (1)** does not apply to—

(a) a climate reporting entity that, on the balance date referred to in **subsection (1)**, has 1 or more subsidiaries; or

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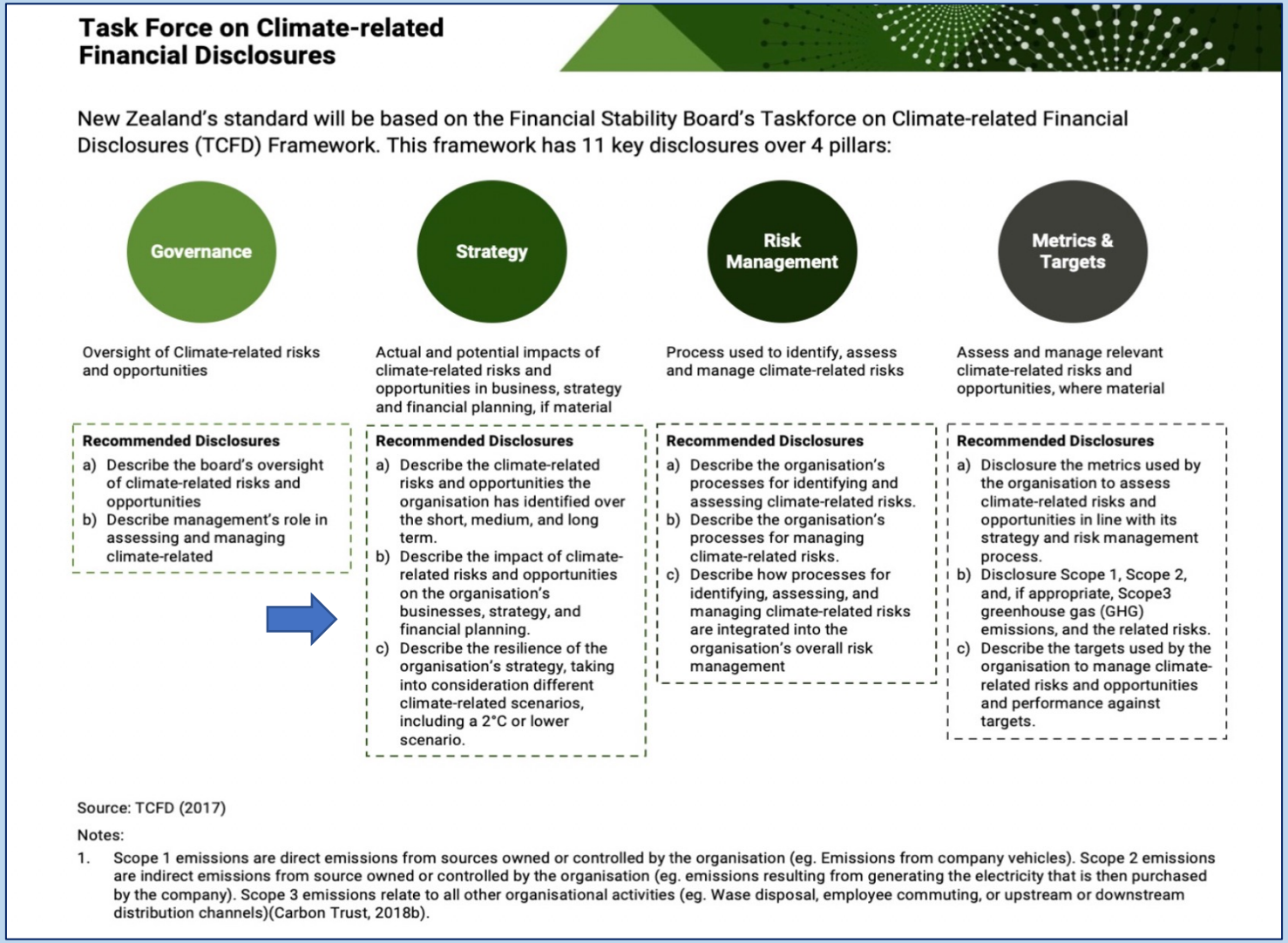
2. Financial Sector (Climate-related Disclosures and Other Matters) Amendment (passed 3rd Reading, 21 October 2021) & NZ External Reporting Board (XRB) (Published 20 October 2021)



Task Force on Climate-related Financial Disclosures

New Zealand's standard will be based on the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) Framework. This framework has 11 key disclosures over 4 pillars:

Governance	Strategy	Risk Management	Metrics & Targets
Oversight of Climate-related risks and opportunities	Actual and potential impacts of climate-related risks and opportunities in business, strategy and financial planning, if material	Process used to identify, assess and manage climate-related risks	Assess and manage relevant climate-related risks and opportunities, where material
Recommended Disclosures a) Describe the board's oversight of climate-related risks and opportunities b) Describe management's role in assessing and managing climate-related	**Recommended Disclosures** a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term. b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning. c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	**Recommended Disclosures** a) Describe the organisation's processes for identifying and assessing climate-related risks. b) Describe the organisation's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	**Recommended Disclosures** a) Disclosure the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process. b) Disclosure Scope 1, Scope 2, and, if appropriate, Scope3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

Source: TCFD (2017)

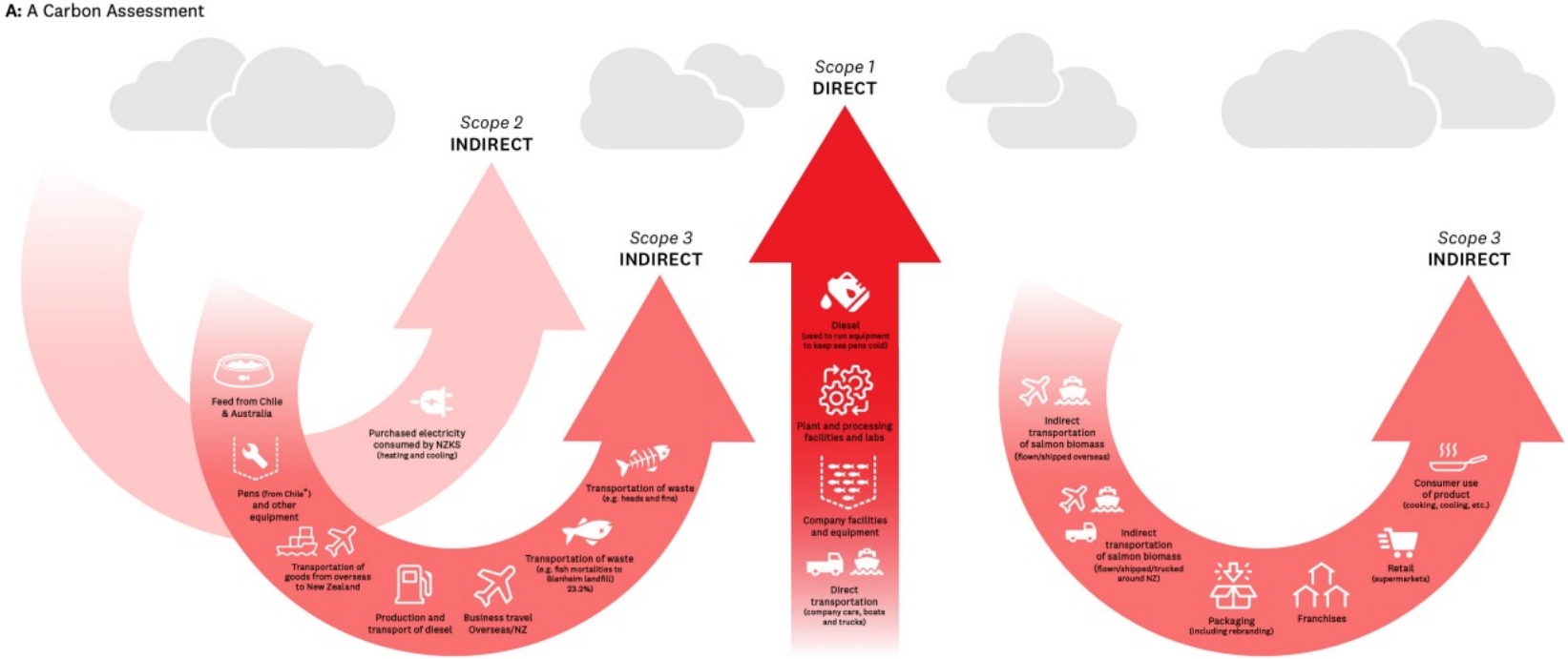
Notes:

1. Scope 1 emissions are direct emissions from sources owned or controlled by the organisation (eg. Emissions from company vehicles). Scope 2 emissions are indirect emissions from source owned or controlled by the organisation (eg. emissions resulting from generating the electricity that is then purchased by the company). Scope 3 emissions relate to all other organisational activities (eg. Wase disposal, employee commuting, or upstream or downstream distribution channels)(Carbon Trust, 2018b).

NZKS will be

Figure 1: Exploring Scope 1, 2 and 3 for New Zealand King Salmon – An external perspective

A: A Carbon Assessment



B: Life Cycle Analysis

SALMON FEED	IMPORTS	FEED VOLUME	DIESEL UPWELLING SYSTEMS	HARVESTED BIOMASS	MORTALITY	FAECES	SALES VOLUME	OVERSEAS (54%)
FY2019 (p. 42)	Feed from Chile and Australia. Pens from Chile. FY2019 (p. 86)	**19,593 t** FY2019 (p. 13)	Cool water is pumped up to the surface of farm pens. FY2019 (p. 10)	**9,013 t** (Live weight) FY2019 (p. 82)	**2,954 t (est)** FY2019 (pp. 12, 13)***	**3,919 t (est)** (20% of feed) (p. 13)**	**7,520 t** FY2019 (p. 12)	**4,060 t** FY2019 (p.59)

Disclaimer: This diagram is made by the McGuinness Institute based on information in the public arena. This diagram must not be relied upon for making investment decisions.

Sources: NZKS 2019 Annual Report; *Stuff 8/1/2015 Winter: 'Chilean firm wins King Salmon contract', **NZKS BOI June 2012 Wybourne: 'Skretting expects that about 20% of the dry matter consumed is excreted as faeces, for NZ King Salmon current salmon diet range'. Faeces estimate based on 20% of feed volume (1953x0.2), ***Mortality estimate based on feed volume converted less harvest (19593/1.8 - 7931).

BOI: 2012 Feed

Summary of Ingredients Used in NZ King Salmon Diets

Protein Sources

38. The proteins contained in fish food are a mixture of fishmeal, land animal proteins and vegetable proteins.

39. Fish require an appropriate mix of digestible amino acids (the building blocks of protein) as opposed to raw protein material (such as fishmeal) *per se*. The same necessary mix of amino acids can derive from various combinations of different raw materials. Understanding the amino acid availability from specific raw materials is an important topic of research at fish feed companies.

40. The choice of protein source varies with cost and availability, and within Skretting this varies around the world according to local conditions. Protein in New Zealand diets supplied from Skretting Australia typically derives from:

    a. Fishmeal; primarily Peruvian anchovy

    b. Poultry meals (bloodmeal, meatmeal, feathermeal); these rendered products are a by-product of poultry slaughtered for human consumption in Australia. These products are excellent nutritional materials for carnivorous fish.

    c. Mammalian meals; these rendered products are a by-product of cattle, sheep and pigs slaughtered for human consumption in Australia. Currently only mammalian bloodmeal (and not mammalian meatmeal) is included in New Zealand diets due to New Zealand import restrictions.

    d. Plant protein meals; Faba bean meal, lupin meal, corn gluten, wheat gluten and soya protein concentrate

41. Concerns around the presence of antibiotics and banned substances (e.g. growth hormones) in poultry products included in salmon diets have been raised.

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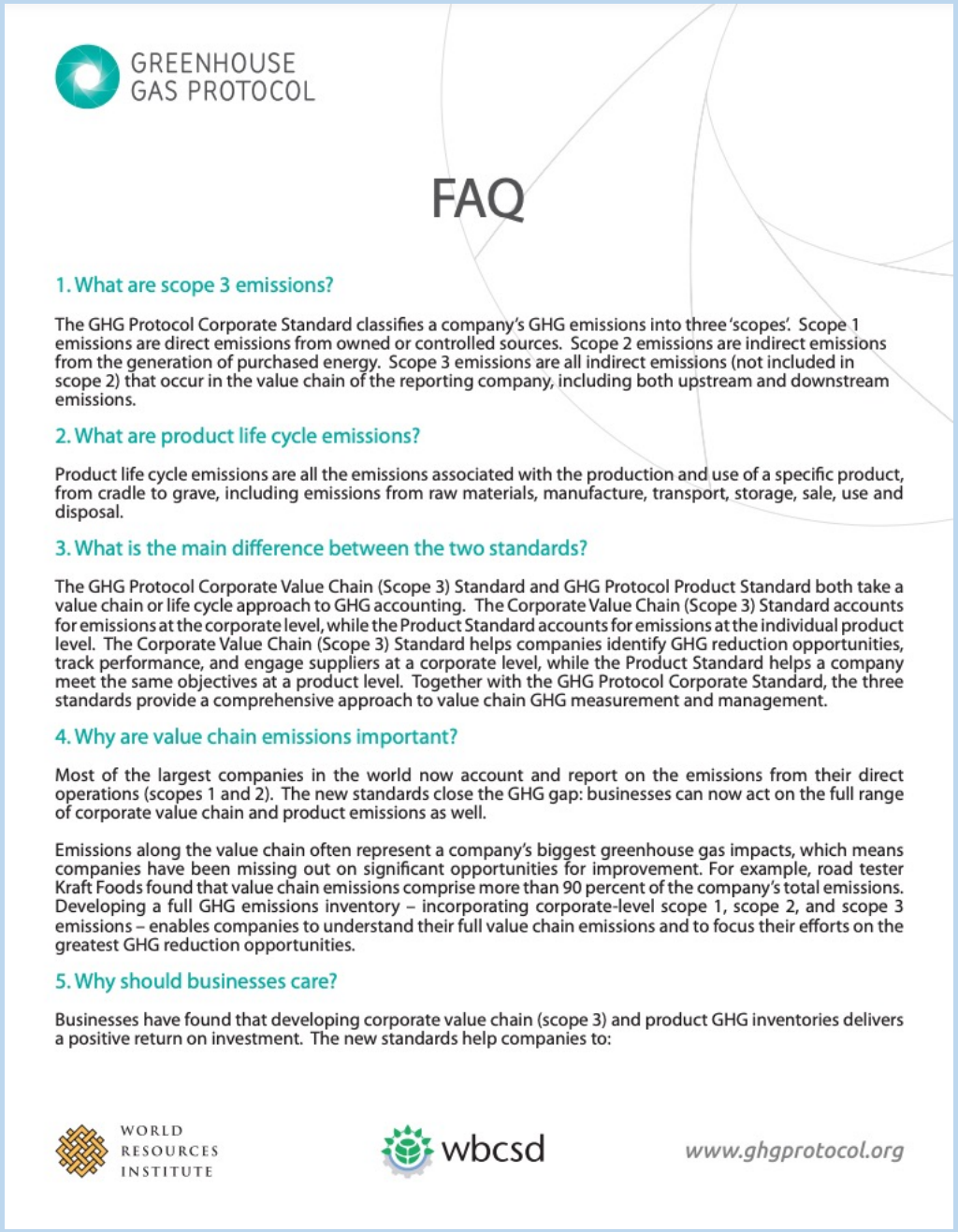


GREENHOUSE GAS PROTOCOL

FAQ

1. What are scope 3 emissions?

The GHG Protocol Corporate Standard classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

2. What are product life cycle emissions?

Product life cycle emissions are all the emissions associated with the production and use of a specific product, from cradle to grave, including emissions from raw materials, manufacture, transport, storage, sale, use and disposal.

3. What is the main difference between the two standards?

The GHG Protocol Corporate Value Chain (Scope 3) Standard and GHG Protocol Product Standard both take a value chain or life cycle approach to GHG accounting. The Corporate Value Chain (Scope 3) Standard accounts for emissions at the corporate level, while the Product Standard accounts for emissions at the individual product level. The Corporate Value Chain (Scope 3) Standard helps companies identify GHG reduction opportunities, track performance, and engage suppliers at a corporate level, while the Product Standard helps a company meet the same objectives at a product level. Together with the GHG Protocol Corporate Standard, the three standards provide a comprehensive approach to value chain GHG measurement and management.

4. Why are value chain emissions important?

Most of the largest companies in the world now account and report on the emissions from their direct operations (scopes 1 and 2). The new standards close the GHG gap: businesses can now act on the full range of corporate value chain and product emissions as well.

Emissions along the value chain often represent a company's biggest greenhouse gas impacts, which means companies have been missing out on significant opportunities for improvement. For example, road tester Kraft Foods found that value chain emissions comprise more than 90 percent of the company's total emissions. Developing a full GHG emissions inventory – incorporating corporate-level scope 1, scope 2, and scope 3 emissions – enables companies to understand their full value chain emissions and to focus their efforts on the greatest GHG reduction opportunities.

5. Why should businesses care?

Businesses have found that developing corporate value chain (scope 3) and product GHG inventories delivers a positive return on investment. The new standards help companies to:

Note: The other standard commonly used is ISO 14064-1:2018 *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*.

Climate ‘Shocks’ to NZKS Risks, Costs and Benefits

1. Carbon tax and/or purchasing carbon credits to offset carbon
2. Regulation
3. Consumer backlash
4. Supply chain disruption (due to weather/feed/distribution product/ Air New Zealand Annual report)
5. Cost of fuel/transport/feed
6. Less access to capital from banks
7. Higher insurance costs (possibly no insurance)
8. Mortalities/fish escapes due to storms/rising temperatures

Reporting should help businesses pivot, so they make the right decisions for investors, employees, society and the planet.

Part 3: Financial Results

NZK 1H22 Half Results Investor Presentation

(30/9/2021, 9:54 am HALFYR Attached NZK 1H22 Results Investor Presentation)

FORECAST VOLUMES FY22 - FY28

Future harvest volumes dependent on consent approvals and successful Blue Endeavour application

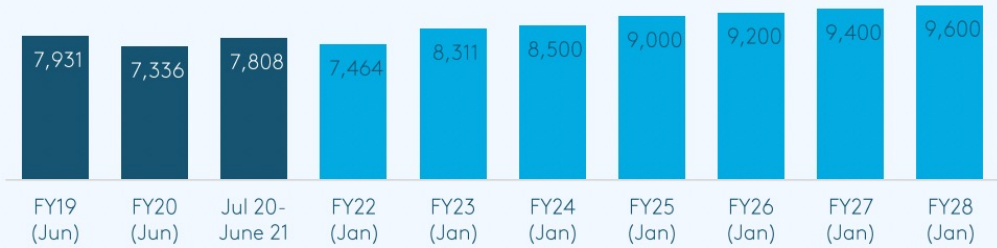
FY22 harvest volumes lower than previous guidance due to:

- Impact of single year class farming model.
- Harvest slowed to improve average fish size and available biomass for harvest

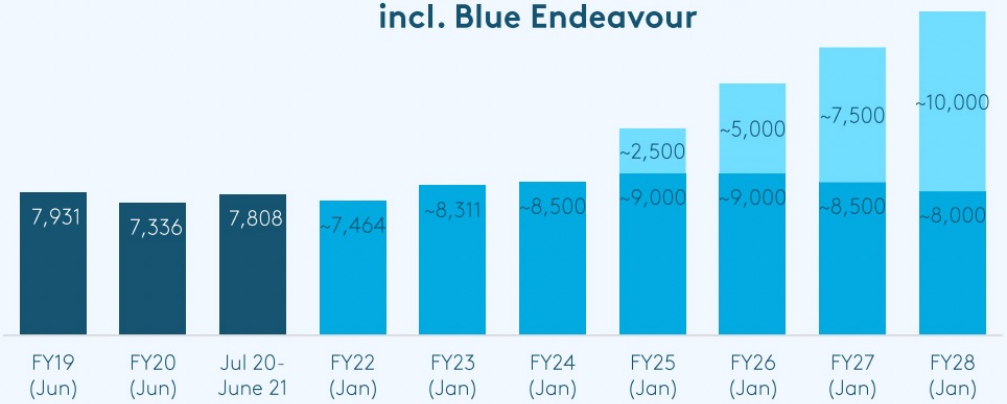
FY23 and future years includes the introduction of a hybrid farming model to minimise the use of warmer low-flow farms during peak summer months and the introduction of nursery farms to support Blue Endeavour growth

But there is a risk of the inshore consents not being renewed – see SoE Figure 5

Harvest Volumes (tonnes) *



Harvest Volumes (tonnes) incl. Blue Endeavour



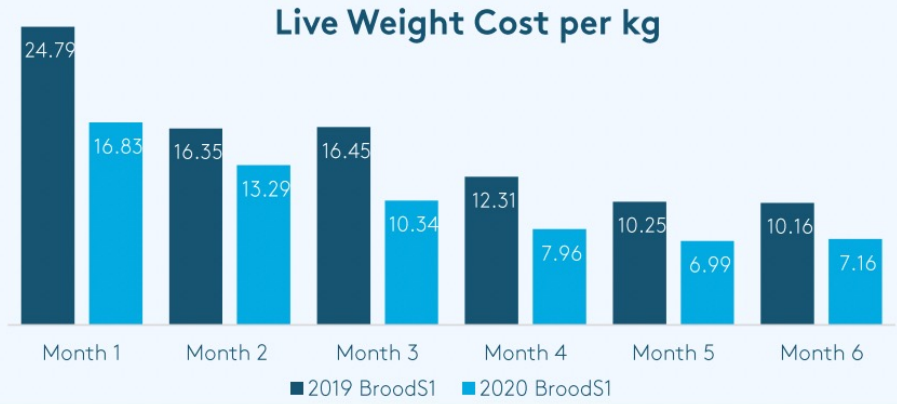
* Harvest volumes have been forecast based on utilisation of existing resource consents, historic performance and our new aquaculture model. They do not include any impact of farm relocation.

FISH PERFORMANCE

Fish performance continues to be a key focus for the business

- Single year class farming model adversely impacted our fish costs through mortality and lack of growth in size for the first 4 months of 1H22. Poor size growth and fish cost results in Pelorus Sound were due to fish being exposed to two summer periods.
- We continue to adapt our farming model to mitigate the impact of warmer summer waters. Upwelling is continuing to be used this coming summer to circulate cooler deeper water to our fish especially at low flow sites.
- New Aquaculture General Manager, Grant Lovell (20 years King Salmon experience), is combining the best of prior production models.
- Harvest volume 3,435t 1H22 slightly down on 1H21 3,543t. Harvest rates intentionally slowed in 1H22 to assist with fish size recovery and to rebuild available harvest biomass.

Biological Performance	1H22	1H21	% chg.	1H20	% chg.
Harvest Volume (t)	3,435	3,543	*-3%*	3,821	*-10%*
Average Harvest Weight (Kg)	3.19	4.35	*-27%*	3.78	*-16%*
Feed Conversion Ratio (FCR)	1.98	1.95	*1%*	1.79	*11%*
Closing Livestock Biomass	6,473	6,512	*-1%*	5,452	*19%*
Feed Cost ($ / Kg of feed)	2.39	2.42	*-1%*	2.58	*-7%*



HARVEST BY FARM

Total harvest for 1H22 was 3,435t. The smaller fish size impact was mitigated by reducing harvest to allow size growth.

Farm		Volume Harvested*		
		1H20	1H21	1H22
Queen Charlotte	Ruakaka	151	-	364
	Otanerau	-	-	-
Tory Channel	Clay Point	1,282	1,395	-
	Te Pangu	1,295	1,940	7
	Ngamahau	258	13	1,530
Pelorus Sound	Waitata	352	-	1,391
	Kōpaua	478	-	131
	Waihinau	-	-	-
	Forsyth	-	186	-
		3,816	3,534	3,423

*Volume in t. Volume is based on harvests from sea farms. Note that minor additional volumes are harvested from our hatcheries (total of 12t in 1H22 and 9t in 1H21).

APPENDIX – 1H22 RECONCILIATION BETWEEN GAAP RESULTS AND PRO FORMA FINANCIALS

1H22 NZD 000s	Statutory Financial Statements	Fair Value Adjustments	IFRS 16 Lease Adjustments	FX Close-outs	Pro Forma Operating Financial Information
Revenue	**80,095**				**80,095**
Cost of goods sold	(86,621)	22,582	(980)		(65,019)
Fair value gain / (loss) on biological transformation	30,692	(30,692)			-
Freight costs to market	(11,286)				(11,286)
Gross Profit	**12,880**	**(8,110)**	**(980)**		**3,790**
Other operating income	327			13,495	13,822
Overheads					
Sales, marketing and advertising	(6,480)				(6,480)
Distribution overheads	(2,800)				(2,800)
Corporate expenses	(4,939)				(4,939)
Other expenses	(102)				(102)
EBITDA	**(1,114)**	**(8,110)**	**(980)**	**13,495**	**3,291**
Depreciation and amortisation	(5,170)		850		(4,319)
EBIT	**(6,284)**	**(8,110)**	**(129)**	**13,495**	**(1,029)**
Finance income	16				16
Finance costs	(1,186)		128		(1,058)
Net finance costs	(1,170)	-	128		(1,042)
Profit / (loss) before Tax	**(7,454)**	**(8,110)**	**(1)**	**13,495**	**(2,070)**
Income tax (expense) / credit	1,858	2,271	0		4,129
Net Profit / (loss) for the Year	**(5,596)**	**(5,839)**	**(1)**	**13,495**	**2,059**

UNDERSTANDING OUR GAAP RESULTS

The impact of *NZ IAS-41 Agriculture, NZ IAS-2 Inventory, NZ IFRS-16 Leases and NZ IFRS-9 Financial Instruments*

Our GAAP results are impacted by Fair Value gains or losses arising from the application of *NZ IAS-41 Agriculture, NZ IAS-2 Inventory* and the classification of leases under *NZ IFRS-16*. The impact of these standards are explained below:

Fair Value under *NZ IAS-41 Agriculture* and *NZ IAS-2 Inventory*

When we record a change in biomass at sea, or where the expected future profit we realise on fish that we sell changes, these standards require us to quantify and recognise the gain or loss in the current period. This applies to both biomass at sea and inventories of finished products.

Our Statement of Financial Position shows biological assets at their fair value, with 1H22 seeing an increase in fair value as the value of biomass in the sea was revalued upwards reflecting margin recovery after COVID driven margin compression especially in offshore sales. Pro Forma Operating Financial Performance removes gains / losses associated with the application of these standards. The company will present Pro Forma results for future reporting periods on this basis.

NZ IFRS-16 Leases

Under *NZ IFRS-16* a lessee will no longer make a distinction between finance leases and operating leases; all (material) leases will be treated as finance leases.

In the statement of financial position we are required to recognize the asset (or right to use the asset) and the liability for the lease, while in the statement of profit and loss we recognize the interest cost and the depreciation of the leased asset instead of the operating lease expenses. The application of this standard increases EBITDA, assets and liabilities, however this impact is reversed in our Pro Forma results.

NZ IFRS-9 Financial Instruments

IFRS 9 requires an entity to recognise a financial asset or a financial liability in its statement of financial position when it becomes party to the contractual provisions of the instrument. At initial recognition, an entity measures a financial asset or a financial liability at its fair value plus or minus, in the case of a financial asset or a financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or the financial liability. We closed out a number of foreign exchange contracts early that resulted in $13.5m being disclosed in the flow hedge reserve.

The sustainable growth pathway

Towards our goal of $3 billion in annual sales by 2035

Current state

Existing industry

+ $600 m+ in annual sales
+ 3000+ regional jobs
+ Sustainable production
+ Efficient farming
+ $100 m in innovation
+ 7% average annual growth

Towards $1 billion

Maximise the value of existing farm space through a strong research, innovation and commercialisation system

Lift industry confidence to invest in growth across the work programme

Wharf and hatchery infrastructure to support growth

Beyond $1 billion

World-leading frameworks to enable sustainable open ocean and land-based farming – transformational growth away from many competing uses and values

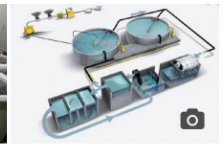
Extend farming into open ocean

World-leading trials of open ocean shellfish and seaweed farming

Enable transitional fish farms to build skills and expertise *(6m waves)*

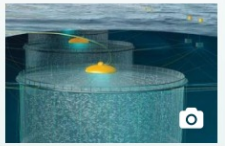
Extend farming onto land-based systems

Hatchery-raised juveniles for greater resilience, value and efficiency



Growing juveniles for longer to make best use of space and avoid unfavourable conditions

Potential $3 billion industry



Open ocean farms *(11m waves)*

Farms producing high value seafood and extracts for market

Image credit: AKVA group

Future state 2035

Future industry

+ $3 b+ in annual sales
+ 6000+ regional jobs
+ Sustainable lifecycle
+ Highly efficient farming

Our four outcomes

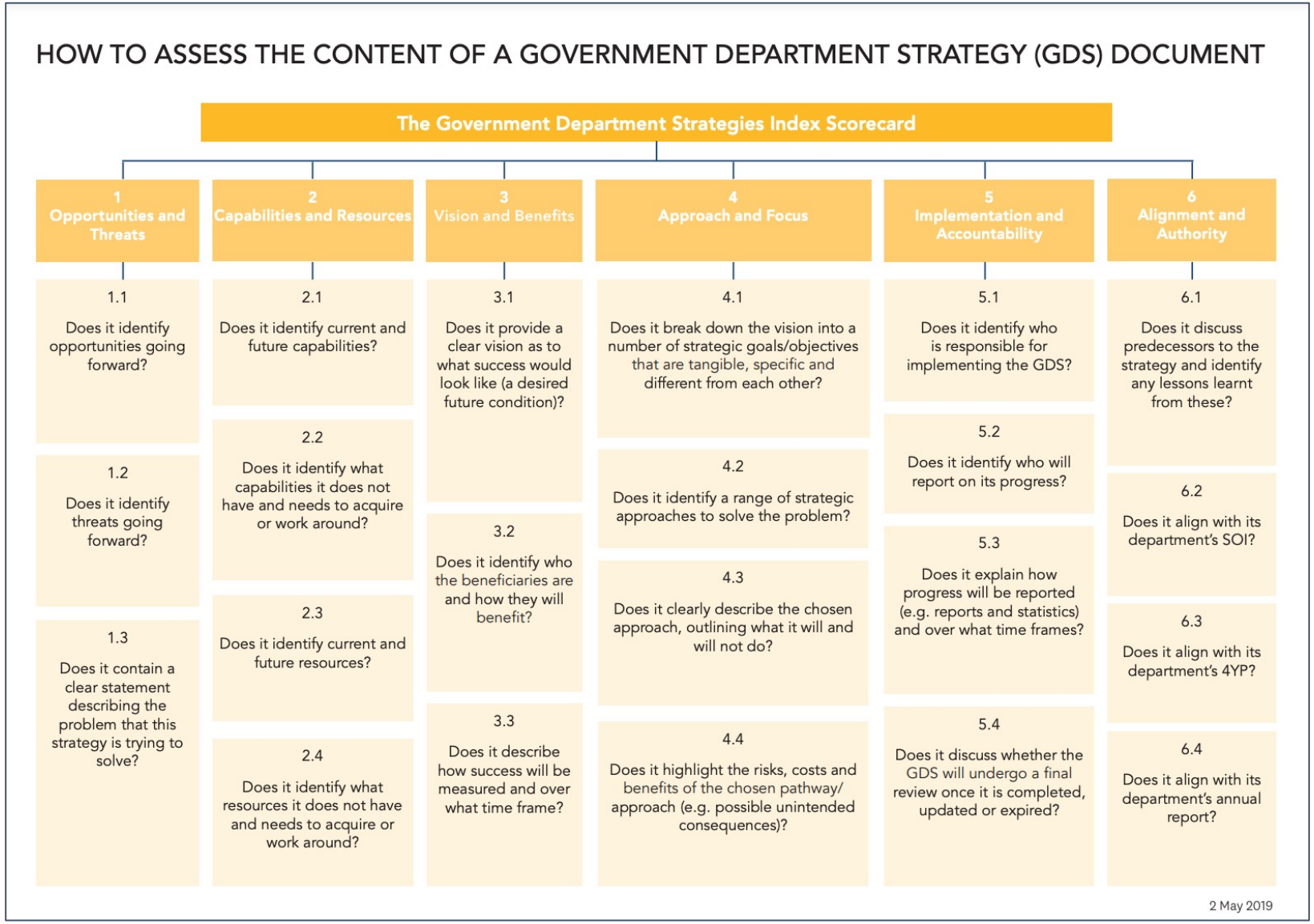
Sustainable: A primary industry leading in environmentally sustainable practices across the value chain

Productive: Aquaculture growth supports regional prosperity

Resilient: Aquaculture is protected from biological harm and supported in adapting to climate change

Inclusive: Partnering with Māori and communities on opportunities to realise meaningful jobs, wellbeing and prosperity

Government Department Strategies Index Scorecard



Government Department Strategies Index Scorecard

STRATEGY DEVELOPMENT

Strategy concerns choice. What we choose to focus on, as individuals, communities and a nation, indicates the direction we are likely to travel. Depending onthe intensity of our focus and the quality of our strategic instruments, we might drift slowly on a fixed trajectory, only changing direction in response to a disruptive event, or we may move rapidly and purposefully, working hard to be proactive, agile and open to emerging opportunities and challenges.

A strategy maintains a balance between ends and means. The cone of plausibility (Figure 1) illustrates the connection between hindsight, insight and foresight. It helps distinguish between the preferred future (the desired end) and possible and probable futures.

Improved strategy development can contribute to better stewardship in terms of publishing better strategy documents, improving transparency, delivering better public engagement and critical assessment, and developing a deeper understanding of trade-offs and the way forward.

Figure 1: The cone of plausibility

MCGUINNESS INSTITUTE
TE HONONGA WAKA

GLOSSARY

Government Department Strategy (GDS)

A government department strategy must:

i. Be a publicly available statement or report;

ii. Be generated by government departments with a national rather than a local focus;

iii. Demonstrate long-term thinking presented in such a way that the strategy links to a long-term vision or aim, and ideally provide clarity over the factors that may impinge on the attainment of that vision or aim; and

iv. Guide the department's thinking and operations over the long-term (i.e. contain a high-level work programme to achieve change over two years or more).

Plan

A plan is operational in nature; it focuses on who will do what and when. It does not explore tensions/trade-offs in the external environment or the strategic options in any detail.

Possible futures

Possible futures are the wide range of potential outcomes (including probable and improbable futures). Possible futures speak to the idea of 'what we know, what we know we don't know and what we don't know we don't know'.

Preferred future

A preferred future is a future most desired by an individual or group.

Probable future

The probable future is the most likely outlook.

Strategic approach

Describes the agreed means to achieving the desired vision.

Strategy

A strategy maintains a balance between ends and means. Professor Lawrence Freedman suggests that strategy is to do with determining objectives and the 'resources and methods available for meeting such objectives. This balance requires not only finding out how to achieve desired ends but also adjusting ends so that realistic ways can be found to meet them by available means'.

Strategy maps

Strategy maps provide 'the visual framework for integrating the organization's objectives [and] illustrates the cause-and-effect relationships that link desired outcomes'.