PUBLIC DISCLOSURE STATEMENT

HARVEST ROAD OCEANS PTY LTD

PRODUCT CERTIFICATION (OYSTERS & AKOYA)

FY2020–21

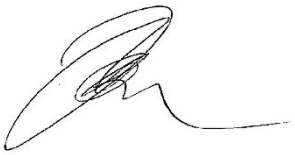
Australian Government

Climate Active
Public Disclosure Statement

HARVEST ROAD

An Australian Government Initiative

Climate Active

NAME OF CERTIFIED ENTITY	Harvest Road Oceans Pty Ltd
REPORTING PERIOD	1 July 2020 – 30 June 2021 True-up report
DECLARATION	*To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.*  Dr Justin Welsh General Manager of Aquaculture 29/10/21

Australian Government
Department of Industry, Science, Energy and Resources

Version September 2021. To be used for FY20/21 reporting onwards.

1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	281
THE OFFSETS BOUGHT	59% ACCUs, 41% VCUs
RENEWABLE ELECTRICITY	0%
TECHNICAL ASSESSMENT	6 November 2020 Andrew D. Moore Life Cycle Logic Next technical assessment due: 31 October 2023

Contents

2. CARBON NEUTRAL INFORMATION

Description of certification

This PDS provides an outline of the certification of the aquaculture produced mussel products of Harvest Road Oceans ("HRO") as carbon neutral using the Climate Active Carbon Neutral Standard for Products and Services (2019).

Our Life Cycle Assessment (LCA) covers all the shellfish grown and produced by HRO, of which this PDS covers our Rock Oysters and Akoya products. A separate PDS covers the footprint of our mussels. We have estimated the greenhouse gas intensity for the functional unit of "1 dozen Rock Oysters / Akoya supplied to customers". Carried out in accordance with the Greenhouse Gas Protocol Product Life Cycle Accounting and Reporting Protocol, this includes the carbon emissions from a third-party hatchery, the fuel used in the boats to the pre-processing of the materials used in the packaging, through to freight of the product to the customer and disposal of the empty shells. The detailed calculation for the LCA has been submitted to the Climate Active Carbon Neutral Program. The LCA data have been assessed by Life Cycle Logic under the Climate Active validation requirements for carbon neutral certification.

"Our decision to have our products certified as Climate Active carbon neutral is a direct result of our aim to produce sustainable seafood."

Product description

HRO is a business of Harvest Road Group and part of Tattarang, one of Australia's largest private investment groups. We grow and market a range of ethically and sustainably produced high quality Western Australian products for consumers and wholesale partners in domestic and export markets. Shellfish production is carried out in three areas of Western Australia: Garden Island (Cockburn Sound), Albany (Oyster Harbour and King George Sound) and Carnarvon (Fascine and Massey Bay).

Our seafood is grown under the Leeuwin Coast banner. We established the Leeuwin Coast brand to honour WA oceans, and our world at large. The swift flowing currents along the Leeuwin Coast give our produce a taste that is uniquely West Australian. It's as clean and pure as the pristine waters in which it is grown. We have built our aquaculture business on sustaining a vision of are creating solutions to prevent climate breakdown, enhance food security and revitalize local ecosystems. We're dedicated to supplying the world with the finest seafood grown and harvested from Western Australia.

3.EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

Quantified emissions have been assessed as 'attributable processes' that become the product, make the product and carry the product through its life cycle. These have been quantified in the carbon inventory.

Non-quantified emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

Outside the emissions boundary

Non-attributable emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

Inside emissions boundary

Quantified

Water

Waste

Electricity

Fuels used in vessels and company vehicles

Stationary energy

Refrigerants for our cool room

Ropes and floats

Freight of inputs

Freight of products to customers

Repairs/Maintenance of vessels

Quality assurance

Packaging materials

Hatchery electricity use (oysters and Akoya)

Transport of empty shells to landfill

Sequestration in landfill

Non-quantified

Fuels used by hatcheries

Fuel used by 3rd party packer

Refrigerants used by 3rd party packer

Refrigerants used for refrigerated transport

Outside emission boundary

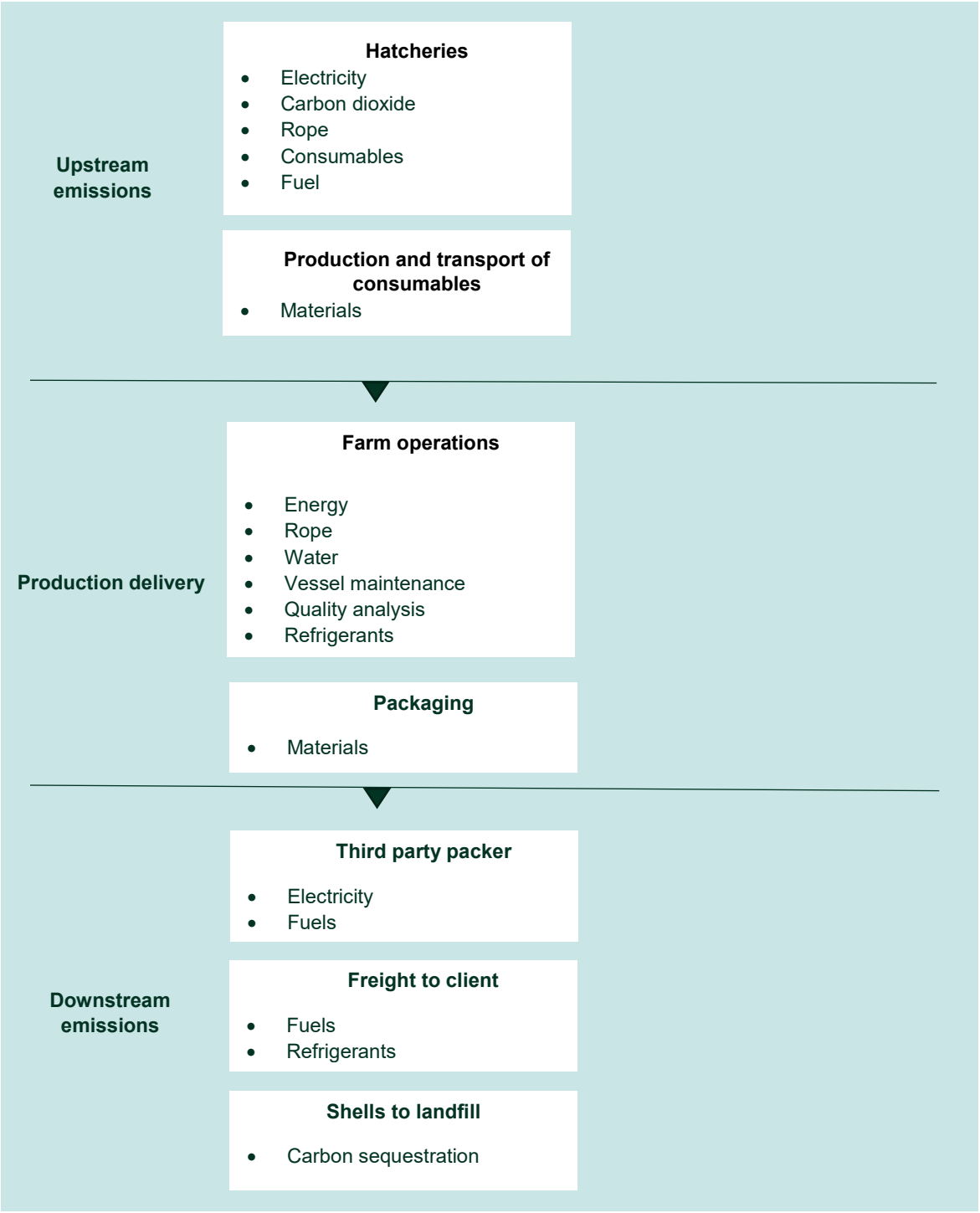
Non-attributable

Organisational overhead

Downstream storage of product before food preparation and consumption

Food preparation and consumption

Product/service process diagram



Data management plan for non-quantified sources

Emissions from non-quantified emission sources are estimated to contribute less than 0.2% to our footprint. Nonetheless, our data management plan consists of:

- Water use at Mangles Bay is not metered. This will remain to be the case for the foreseeable future, as the investment costs for metering would far outweigh the benefits.
- Fuel use at the hatcheries and third-party packer. We have not received any information regarding fuel use by these external parties. We do know that, due to the nature of their activities, electricity is their most important energy source (which is included in the LCA). We are not able to collect data on third-party fuel use, nor can we extrapolate this or use proxy data to fill the data gap. Furthermore, we believe the third-party fuel use is not material, and therefore we have applied uplift factors these emission sources.
- The use of uplift factors for refrigerant use and emissions associated with our third-party packer and refrigerated transport is considered appropriate for the foreseeable future. We will attempt to get better data on refrigerant use from our third-party packer. For refrigerated transport, it would be a significant exercise to establish refrigerant use and attribute this to HRO. The impact is estimated to be negligible, so we will continue our current approach.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Our decision to have our products certified as carbon neutral is a direct result of our aim to produce sustainable seafood. Harvest Road is leading the way in trialing new methods of food production that pave the way for a better earth – taking what we need, whilst striving to leave it better than how we found it.

This is supported by our vision to increase the efficiency of our operation as far as possible, reducing our emissions wherever possible, and to fully offset remaining emissions. We also closely monitor the creation of 'blue carbon' credit farming projects in Australia and invest in innovative technology and methods to constantly improve our sustainable farming practices.

Although HRO is a young business that is currently undergoing rapid expansion, our emissions reduction strategy is currently supported by the following commitments:

- We aim to reduce our scope one and two emissions to net zero by 2025 and scope 3 emissions to net zero by 2030.
- Relocating our oyster barge to act as a staging platform and reduce boat movements and fuel use.

Together with carbon emission reduction strategies, HRO has taken other actions to demonstrate strong environmental stewardship in the marine environment in which we work:

- HRO has committed to completing routine beach clean-ups around its operational areas. Removing rubbish from the natural environment and protecting the areas in which we operate.
- We are using floating oyster infrastructure where practical which has a smaller seabed footprint and reduces sea floor disturbance.
- HRO was awarded "Friends of the Sea" certification for "Sustainable Shellfish' and "Sustainable Chain of Custody'.

Emissions reduction actions

During FY21 HRO continued to undergo rapid expansion, but during this time we implemented:

- New larger vessels with a greater capacity which improved efficiency and now we require less trips to and from the mussel leases, thereby reducing the amount of diesel consumed per unit of product.
- We invested in more efficient oyster handling technology, reducing vessel time on lease per production unit.

5.EMISSIONS SUMMARY

Emissions over time

Emissions since base year				
		Total tCO_2-e	**Emissions intensity of the functional unit (1 dozen Akoya)**	**Emissions intensity of the functional unit (1 dozen Oysters)**
Base year:	2020–21 (projected)	115	*0.000671 t CO_2-e*	*0.000485 t CO_2-e*
Year 1:	2020–21 (true-up)	281	0.00526 *t CO_2-e*	0.00645 *t CO_2-e*

True up information

True up of total net emissions

1)	Projected emissions for reporting period	24.9
2)	Actual emissions for reporting period	281.4
3)	Difference	-256.5 t CO2-e

Significant changes in emissions

Our emissions are expected to show an upward trend due to the significant growth of our business. Compared to our initial (projected) inventory, we have received better quality activity data from two of our key value chain partners. Unfortunately, this resulted in an increase of emissions compared to our original estimates for the oyster and Akoya hatchery and for the packaging of our products.

Within our own organization we have seen a significant increase in emissions from waste. This is because we are currently renewing and upgrading existing facilities, and old infrastructure on our farms has to be disposed of. We expect that emissions from waste will come down again once we have completed these upgrades. Finally, we have airfreighted some of our fresh oysters to Sydney and Melbourne, which we had not anticipated in the original footprint. This alone resulted in an increase in our footprint of almost 60 tones.

Use of Climate Active carbon neutral products and services

Harvest Road Oceans does not claim to have used any carbon neutral products or services in the reporting period that would be accounted towards this product.

Product/Service emissions summary

Baby oysters and Akoyas (spat) are grown in a hatchery. On HRO's farms, Akoya grow out (15 months) on ropes hanging in the water, while oysters grow (2-3 years) in submerged baskets. During this period, they filter nutrients from the water, which allows them to grow. Grown oysters and Akoyas are harvested, cleaned, packaged and transported to customers. After consumption, the empty shells are disposed of and

assumed to go to landfill. The carbon that has been captured in the shells will remain sequestered.

Stage	Project emissions (Oysters) tonnes CO_2-e	Actual Emissions (Oysters) tonnes CO_2-e	Project emissions (Akoya) tonnes CO_2-e	Actual Emissions (Akoya) tonnes CO_2-e
Hatchery – electricity	0	12.7	0	8.8
Hatchery – liquid CO_2	-	15.9	-	10.9
Transport from hatcheries to farm	0	0.7	0	0.2
Rope used on farm	-	-	0.1	0.6
Packaging materials	0	6.0	0	1.5
Upstream freight	-	2.7	-	0.7
HRO Fuel use	4	55.4	10	22.5
HRO Land base electricity use (location-based approach)	0.1	12.1	1.8	3.9
HRO Land base waste	0.8	5.3	7.9	17.2
HRO Cold storage (refrigerants)	0	0.7	0	0.7
HRO Land base water supply (Uplift factor)	0	0.8	0.2	0.3
Boat repairs and maintenance	0	10.8	0	10.8
Quality analysis	0	2.6	0	2.6
3rd party packer - electricity	-	-	-	19.1
3rd party packer – uplift for fuel and refrigerants	-	-	-	1.0
Freight to customers	0	60.0	0	1.5
Empty shells transported to landfill	0	0.3	0	0.1
End-of-life disposal (carbon in shells is sequestered in landfill)	0	-5.7	0	-0.9
Total Net Emissions	4.9	180.3	20	101.1

Emissions intensity per functional unit	6.45 kg CO_2e/doz	5.26 kg CO_2e/doz
Number of functional units to be offset	27,962 doz of Oysters	19,234 doz of Akoya
Total emissions to be offset	180.3 t CO_2e	101.1 t CO_2e

6.CARBON OFFSETS

Offsets strategy

Offset purchasing strategy: **Forward purchasing**		
1.	Total offsets previously forward purchased and banked for this report	115
2.	Total emissions liability to offset for this report	281
3.	Net offset balance for this reporting period	166
4.	Total offsets to be forward purchased to offset the next reporting period	618
5.	Total offsets required for this report	784

Co-benefits

Credits were purchased from the Tallering Station Human Induced Regeneration project, Yarra Yarra Biodiversity Corridor and Fortaleza Ituxi REDD project.

The Tallering Station Human Induced Regeneration project is located in remote Western Australia. Tallering Station is regenerating over 7,500ha of native shrubland and forest. Over time the project will provide much needed habitat for endangered and critically endangered native species in the region and aiding restoration of some of the most at-risk landscapes in Australia.

The Yarra Yarra project is the largest revegetation project based in the Western Australian Wheatbelt. This key project will help to protect and recover the endangered and declining woodland while sequestering carbon. Due to sampling constraints, these credits will become available for retirement in 2022.

The Fortaleza Ituxi REDD project in Brazil, mitigating deforestation in the Amazon in Brazil.

Offsets summary

Proof of cancellation of offset units

Offsets cancelled for Climate Active Carbon Neutral Certification											
Project description	**Type of offset units**	**Registry**	**Date retired**	**Serial number (and hyperlink to registry transaction record)**	**Vintage**	**Quantity**	**Eligible Quantity (tCO_2-e)**	**Quantity used for previous reporting periods**	**Quantity banked for future reporting periods**	**Quantity used for this reporting period claim**	**Percentage of total (%)**
Tallering Station, Human Induced Regeneration, Mullewa, Western Australia	ACCUs	ANREU	27 Oct 2021	8,332,306,567-8,332,307,406	2021-2022	840	166*	0	618	166	59%
Gold Standard-accredited Yarra Yarra Biodiversity Corridor, WA	CDM-CER	GSR		GS1-1-AU-GS3039-21-2022-19221-5789-6071	2022	283	0	0	0	0	
Stapled to Fortaleza Ituxi REDD Project, Brazil	VCU	Verra	3 Mar 2021	7623-412957081-412957363-VCU-053-MER-BR-14-1654-15122013-14122015-0	15/12/2013-14/12/2015	283	115**	0	0	115	41%
Total offsets retired this report and used in this report										281	
Total offsets retired this report and banked for future reports									618		

* Please note that 55 of the eligible 840 offsets are used in our Mussels PDS (Product Certification FY2020-21). 618 have been banked for future years and shown in this PDS.

** Please note that 168 of the eligible 283 offsets are used in our Mussels PDS (Product Certification Projected FY 2020-21).

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Australian Carbon Credit Units (ACCUs)	166	59%
Verified Carbon Units (VCUs)	115	41%

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

NA

APPENDIX A: ADDITIONAL INFORMATION

NA

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location approach.

Location-based method

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

Market-based method

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

Market-based approach summary

Market-based approach	Activity data (kWh)	Emissions (kgCO2-e)	Renewable % of total
Behind the meter consumption of electricity generated	0	0	0
Total non-grid electricity	**0**	**0**	**0**
LGC purchased and retired (kWh) (including PPAs & Precinct LGCs)	0	0	0
GreenPower	0	0	0
Jurisdictional renewables (LGCs retired)	0	0	0
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0
Large Scale Renewable Energy Target (applied to grid electricity only)	4,310	0	19%
Residual electricity	18,463	19,813	0%
Total grid electricity	22,773	19,813	19%
Total electricity consumed (grid + non grid)	22,773	19,813	19%
Electricity renewables	4,310	0	
Residual electricity	18,463	19,813	
Exported on-site generated electricity	0	0	
Emission footprint ($kgCO_2$-e)		19,813	

Total renewables (grid and non-grid)	**18.93%**
Mandatory	**18.93%**
Voluntary	**0**
Behind the meter	**0**
Residual electricity emission footprint (tCO_2-e)	**20**

Figures may not sum due to rounding. Renewable percentage can be above 100%

Location-based approach summary

Location-based approach	Activity data (kWh)	Emissions ($kgCO_2$-e)
WA	22,773	15,941
Grid electricity (scope 2 and 3)	**22,773**	**15,941**
WA	0	0
Non-grid electricity (behind the meter)	**0**	**0**
Total electricity consumed	**22,773**	**15,941**
Emission footprint (tCO_2-e)	**16**	

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following sources emissions have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant-non-quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
Fuels used by hatcheries	Yes	No	Yes	No
Fuel used by 3rd party packer	Yes	No	Yes	No
Refrigerants used by 3rd party packer	Yes	No	Yes	No
Refrigerants used for refrigerated transport	Yes	Yes	No	No

Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected **(no actual data).**
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**).

	No actual data	No projected data	Immaterial
Not applicable			

APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

Relevance test					
Non-attributable emission	*The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions*	*The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.*	*Key stakeholders deem the emissions from a particular source are relevant.*	*The responsible entity has the potential to influence the reduction of emissions from a particular source.*	*The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.*
Organizational overhead	Not relevant for the product	No	No	Yes	No
Storage by our customers	Possibly	No	No	No	No
Food preparation and consumption	Possibly	No	No	No	No

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