



FINAL REPORT

Western Australian based Institute for Spiny Lobster Research Business Plan

Matt Taylor

February 2023

FRDC Project No **2018-117**

© 2023 Fisheries Research and Development Corporation.
All rights reserved.

ISBN: 978-0-6488948-3-4

FRDC Project Number 2018-117 Western Australian based institute for spiny lobster research business plan

2023

Ownership of Intellectual property rights

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Fisheries Research and Development Corporation and the Western Rock Lobster Council Inc.

This publication (and any information sourced from it) should be attributed to **Taylor, M, Western Rock Lobster Council Inc. 2023, Western Australian based institute for spiny lobster research business plan, Fremantle, February. CC BY 3.0**

Creative Commons licence

All material in this publication is licensed under a Creative Commons Attribution 3.0 Australia Licence, save for content supplied by third parties, logos and the Commonwealth Coat of Arms.



Creative Commons Attribution 3.0 Australia Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided you attribute the work. A summary of the licence terms is available from <https://creativecommons.org/licenses/by/3.0/au/>. The full licence terms are available from <https://creativecommons.org/licenses/by-sa/3.0/au/legalcode>.

Inquiries regarding the licence and any use of this document should be sent to: frdc@frdc.com.au

Disclaimer

The authors do not warrant that the information in this document is free from errors or omissions. The authors do not accept any form of liability, be it contractual, tortious, or otherwise, for the contents of this document or for any consequences arising from its use or any reliance placed upon it. The information, opinions and advice contained in this document may not relate, or be relevant, to a reader's particular circumstances. Opinions expressed by the authors are the individual opinions expressed by those persons and are not necessarily those of the publisher, research provider or the FRDC.

The Fisheries Research and Development Corporation plans, invests in and manages fisheries research and development throughout Australia. It is a statutory authority within the portfolio of the federal Minister for Agriculture, Fisheries and Forestry, jointly funded by the Australian Government and the fishing industry.

Researcher Contact Details

Name: Matt Taylor
Address: 28 Mews Road, Fremantle, WA 6160
Phone: 08 9432 7721
Email: matt@westernrocklobster.org
Web: www.westernrocklobster.org

FRDC Contact Details

Address: 25 Geils Court
Deakin ACT 2600
Phone: 02 6122 2100
Email: frdc@frdc.com.au
Web: www.frdc.com.au

In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

Table of Contents

Acknowledgments.....iv

Executive Summary.....v

Introduction..... 1

 The commercial Western Rock Lobster fishery1

 The Western Rock Lobster Council1

 Towards strategic investment in R, D&E: the formerly proposed Australasian Institute for Spiny (Rock) Lobster Research2

 The Western Rock Lobster (WRL) Research Network Proposal.....2

Objectives..... 2

Method 4

Results, discussion, and conclusion 6

Implications 7

Recommendations 7

 Further development.....7

Extension and Adoption 7

 Project coverage7

Project materials..... 7

Appendices 8

 Appendix 1: Stakeholders8

 Appendix 2: Outputs9

Acknowledgments

WRL would like to thank all those who contributed to the development of the research network business case and research priorities framework and plan.

See Appendix 1 for the list of people who contributed.

Executive Summary

What the report is about

The project commenced in November 2020, when the Western Rock Lobster Council (WRL) engaged Australian Venture Consultants (AVC) to examine the strategic case for a research network and prepare a business case for a proposed Western Rock Lobster Research Network.

WRL engaged with many stakeholders, ranging from its members (commercial rock lobster fishers and processors) to other Australian Spiny Lobster associations as well as State and Federal Government stakeholders. Initial discussions focused on whether a national network could be established, but through negotiations and further assessments a Western Rock Lobster network emerged as the preferred option, with linkages to other lobster-producing jurisdictions.

The proposal has since acknowledged that the concept could, after being in existence for several years, be transformed into a national research network focused on all Australia's wild catch lobsters. The Network could then consider and work towards formalising national research with other entities. The Network can provide a mechanism to collaborate on a project-by-project basis with other organisations such as Southern Rock Lobster (SRL) which SRL are supportive of.

Background

Reasons for this initiative and anticipated benefits

The project was initiated by WRL from a desire to better align research investments made under the WRL Industry Partnership Agreement (IPA) with the knowledge and technology needs of its members and to create greater opportunity to leverage that investment.

The WRL Research Network proposal anticipates achieving additional leverage on the amount hypothecated to the FRDC WRL IPA, in the range of 1:1 to 4:1, or an estimated additional \$3.2 million to \$12.9 million over its first five years of operation, in the pursuit of industry's innovation priorities.

Ultimately, government will receive an increasing return as the value of the Western Rock Lobster industry increases through these industry initiatives.

Aims and objectives of the project

1. To produce a comprehensive stakeholder, primarily industry-driven Research Priorities Plan which guides the Research, Development and Extension investments, activities and structure of the proposed research network and articulates the value it will deliver to stakeholders.
2. To produce a detailed Business Case which determines the organisational structure and business plan that will give effect to the Research Priorities Plan
3. To produce a detailed and appropriate Governance Framework for the WRL Research Network, which is optimised with respect to the governance context and gives effect to well understood principles of good governance.
4. To produce several variants of an Investment Proposal which reflects the requirements of different potential 'investors'

Methodology

The Western Rock Lobster Council engaged an appropriately experienced consultant to undertake the task and produce a Business Plan for the proposed Research Network, comprising the following key components (note: these are not separate documents):

- Research Priorities Plan
- Business Case
- Governance Framework
- Investment Proposal

Results/key findings

The project results and findings include:

- a) a comprehensive stakeholder-primarily, industry - driven Research Priorities framework which guides the activities and structure of the proposed Research Network as well as the current RD&E planning processes and articulates the value it will deliver to stakeholders. It is aligned with the needs of key stakeholders, primarily industry operators, and has sufficient support necessary to attract the resources required to establish the proposed Research Network and ensure that it is sustainable.
- b) a detailed Business Case which outlines the organisational structure and management approach that will give effect to the Research Priorities Plan.
- c) a detailed and appropriate Governance Framework for the WRL Research Network which is optimised with respect to the governance context and gives effect to well understood principles of good governance.
- d) several variants of an Investment Proposal which reflects the requirements of different potential 'investors.

The following key documents are the main outputs of the project and are available on the website of the Western Rock Lobster Council by following [this link](#)

- WRL Research Network – Research Priorities and Business Plan Publication (includes the research priorities, business case, governance framework and investment proposal)
- The WRL RD&E Plan provides direction to the FRDC-WRL IPA and the proposed Research Network

Implications for relevant stakeholders

Industry will have a greater say in research and development investment priorities.

- Western Australia government will be able to increase its ability to ensure WA's fisheries receive a greater return on research and development investments.
- FRDC increasing its strategic role in developing fisheries in Australia will have the opportunity to reduce administrative costs.
- Communities will experience more benefits from the fishing sector's investments in research and industry development.

Introduction

The commercial Western Rock Lobster fishery

The West Coast Rock Lobster (Managed) Fishery (WCRLMF) targets the Western Rock Lobster, *Panulirus cygnus*, on the west coast of Western Australia between Shark Bay and Cape Leeuwin, using baited traps (pots). It is Australia's largest commercial wild capture fishery by value.

In 2000 it became the world's first fishery to be certified as ecologically sustainable by the Marine Stewardship Council (MSC) in recognition of the high environmental values and sustainable practices maintained by its commercial fishers. The fishery has maintained its MSC certification since and is recognised as a world leader in innovation, fisheries management, and sustainability.

The Western Rock Lobster Council

Since 2001, the Western Rock Lobster Council Inc. (WRL) has represented the interests of Western Rock Lobster commercial fishers as its peak body. WRL is governed by a board comprised of eight directors elected by Western Rock Lobster managed fishery licence (MFL) holders, as well as a single independent director appointed by the Board. The WRL executive team is comprised of a Chief Executive Officer, an Executive Officer, a Finance and Administration Officer, a Communications Officer, and a Program Officer.

In 2017, WRL commissioned ACIL Allen to undertake a study to model the economic contribution of the Western Rock Lobster industry to the Western Australian economy (FRDC 2017-084). The report revealed the industry contributed \$505 million to the State and supported more than 2,400 direct and indirect jobs across the State in 2016-17.

The WRL Strategic Plan 2017-21 sets out several strategic objectives, the achievement of which is, to a significant extent, dependent on strategic investment in Research, Development and Extension (R,D&E):

- The Western Rock Lobster industry is professionally managed to achieve an economic contribution of \$1billion GVP to the WA economy by 2028.
- The Western Rock Lobster harvest strategy ensures long-term access to the sustainable resource.
- The community has sufficient confidence in the Western Rock Lobster fishery to support continuing access to the resource.
- There is confidence in the Western Rock Lobster industry to attract and retain investment.
- WRL proactively manages industry risk, reputation, and development.

In 2020, the Strategic Plan was updated with the following strategic objectives for the period 2020 to 2023 that build on past achievements and support the vision going forward:

1. Secure resource access rights.
2. Ensure WRL is self-funded and well-resourced to deliver high-quality advocacy and co-management of the resource.
3. Collaborate and invest in targeted R&D and technology to drive GVP growth and maintain market competitiveness.
4. Ensure the social licence to operate is supported by government, community, and industry.
5. Market diversification and market development.

Again, the achievement of the new objectives is to a significant extent dependent on strategic investment in R,D&E.

Towards strategic investment in R, D&E: the formerly proposed Australasian Institute for Spiny (Rock) Lobster Research

Regardless of the specific objectives of the WRL Strategic Plan, as with all primary industries, ongoing strategic investment in R,D&E that leads to efficacious management of the natural resource, confidence in sensible resource management decisions, more efficient harvesting of the resource and evidence-based policy and practice that ensures an ongoing license to operate is of paramount importance.

By virtue of its relatively significant contribution to Australian fishing industry GVP, the Western Rock Lobster industry makes a commensurately significant indirect contribution to funds that are marshalled by the Fisheries Research and Development Corporation (FRDC) for co-investment with the Commonwealth Government in R,D&E to support Australian fisheries. Under this arrangement WRL has access to a FRDC Industry Partnership Agreement (IPA), whereby a portion of its indirect contribution is focused on the more specific R, D&E needs of the Western Rock Lobster industry. Ensuring that R,D&E investments under the Western Rock Lobster IPA are optimally strategically invested against industry identified R,D&E priorities, leveraged against external and internal sources and invested with the best research providers has been a priority of WRL for the past five years.

Investigations into research priorities and potential mechanisms for achieving optimal strategic investment in R, D&E outcomes commenced in 2017-18 with a concept study into a proposed Australasian Institute for Spiny (Rock) Lobster Research. The development of this Concept Study was undertaken by Australian Venture Consultants and involved engagement with many stakeholders, ranging from WRL's members, fishers, and processors to other Australian Spiny Lobster associations as well as State and Federal Government stakeholders. While the concept of a national lobster research institute was widely perceived as having merit, the general consensus was that its expense and challenges with respect to achieving adequate collaboration between relatively well-established research capability on the East Coast (pertaining mainly to the Southern Rock Lobster (*Jasus edwardsii*)) and while significant, relatively uncoordinated capability in Western Australia (pertaining mainly to the Western Rock Lobster (*Panulirus cygnus*)) would likely present considerable barriers at the time.

The Western Rock Lobster (WRL) Research Network Proposal

The outcome from the Australasian Institute for Spiny (Rock) Lobster Research Concept Study shifted the focus to a less administrative-intensive, Western Australian focused lobster research network – the proposed WRL Research Network – with acknowledgement by many stakeholders that once the WRL Research Network has some 'runs on the board' it could serve as a catalyst for a coordinated national approach not dissimilar to the formerly proposed Australasian Institute for Spiny (Rock) Lobster Research, bringing together national lobster research capabilities such as those within University of Tasmania (UTAS) and the South Australian Research and Development Institute (SARDI) and Southern Rock Lobster (SRL).

The case for the WRL Research Network as set out in Appendix 2 comprises the research priorities plan, business case, governance framework and investment proposal.

Objectives

1. To produce a comprehensive stakeholder, but primarily Western Rock Lobster industry-driven Research Priorities Plan (RPP) which serves to focus the R,D&E undertaken by the WRL Research Network on identified priorities and articulates the value the WRL Research Network will deliver to stakeholders.
2. To produce a detailed Business Case which sets out the financials of the WRL Research Network.
3. To produce a detailed and appropriate Governance Framework which is optimised with respect to the governance context and gives effect to well understood principles of good governance for the WRL Research Network.

4. To produce several variants of an Investment Proposal which reflects the requirements of different potential investors.

Method

WRL Australian Venture Consultants (AVC) to produce a Business Plan for the proposed Research Network, which included the following key studies:

- Research Priorities Plan
- Business Case
- Governance Framework
- Investment Proposal

These work packages were staged, but all underpin optimal likelihood of successful establishment of the proposed Research Network and its sustainable operation as detailed below.

1. Research Priorities Plan (RPP)

The Research Priorities Plan (RPP) determines the areas of R, D&E that the WRL Research Network will focus, guiding the investments, activities and structure of proposed network and articulating the value it will deliver to stakeholders.

The RPP considers the RD&E plan underpinning the FRDC-WRL Industry Partnership Agreement (IPA), as well as other priorities that have been identified by stakeholders, particularly industry participants, that are outside of the strategic or legislative remit of the FRDC.

The process for developing the RPP included the following:

- Through extensive consultation, identification of the key new knowledge and technology needs of industry participants and other key stakeholders, including why the knowledge or technology is required, what form it is required in, when it is required and the consequences of not having it and having it.
- Through an extensive literature review, determination of the current state-of-the-art with respect to the identified knowledge and technology needs.
- Based on a synthesis of the above, development of a RPP framework at a thematic and programmatic level that will be used to guide WRL Research Network investment decisions.
- Determine prioritisation criteria and undertake a program and subprogram prioritisation process based on those criteria.
- Determine existing Western Australian and Australian scientific resources and capabilities that can be bought to bare on the priorities identified by the RPP, as well as gaps in that capability.
- Where resource and capability gaps have been identified, determine a strategy for addressing those gaps, which may include national or international partnerships and investment in local capability.
- Produce a research priorities plan that identifies and prioritises the needs, discusses how research undertaken by the Proposed Institute will address the gaps and deliver on the need, a set of research programs and subprograms that are required to address this, how they will be resourced.
- Describe and quantify the impact on industry, the State, and the Nation of successful outcomes from the RPP.

The RPP was developed through an exhaustive consultation process. This was necessary to ensure that it is aligned with the needs of key stakeholders, primarily industry operators, and that it has sufficient support to attract the resources required to establish the WRL Research Network and ensure that it is sustainable.

2. Business Case

Once the RPP was completed (i.e., it has been determined what it is that the Proposed Research Network will be doing), the next stage was to determine the organisational structure and business plan that will give effect to the RPP (i.e. how the research network will implement the RPP). This analysis provided an options-based analysis that explored:

- The relative merits of different organisational structures, including outsourcing its operations to an established marine science management structure.
- Infrastructure requirements and options for accessing that infrastructure.
- Management and human resource requirements
- Partnership and collaboration requirements
- Marketing and business development strategy
- Administrative and operational requirements
- A full capital and operational cost forecast
- Resourcing options

3. Governance Framework

Once the RPP and business case were agreed, a governance framework was developed and optimised with respect to the governance context and giving effect to well understood principles of good governance, including:

- Principles that reflect the strategic intent of the WRL Research Network that will be embedded in any constitutional documentation or future decision-making body charters.
- Articulation of decision pathways and procedures and accountabilities for policy, strategic and operational decisions pertaining to the proposed WRL Research Network
- Decision and accountability frameworks for projects funded or undertaken by the proposed WRL Research Network
- Composition of decision-making bodies, and the relationships between those bodies.

4. Investment Proposal (known as the “Research Network Publication”, see Appendix 2)

This is a summary document that consolidates the RPP, Business Case and Governance Framework into one document describing:

- What the research network is
- What research it will undertake and what impact that research will have (RPP)
- How it will operate (the selected business case)
- How it will be governed (the select governance framework)
- Resources that are required (investment requirements)

This is a living document designed for publication and to reflect the requirements of different stakeholders, such as the Western Australian Government, Fisheries Research and Development Corporation and other research organisations, but particularly the Western Rock Lobster industry.

Results, discussion, and conclusion

The Business Case for the WRL Research Network was developed over a year and incorporated numerous stakeholder reviews and input. Its path can be summarised as follows:

- **Consultation** – In consultation with WRL, a total of 72 fishers, processors, regulators, scientists, financiers, and other key industry stakeholders were identified. AVC reached out to each of these target interviewees and conducted a series of interviews. These interviews provided important insights into the perceived need for research and preferred models for managing and governing research projects and decisions.
- **Preliminary Research Priorities Framework** – A preliminary draft research priorities framework was established based on key themes that were derived from the consultation.
- **Literature review** – to determine the ‘state-of-the-art’ in each of the program areas identified in the research priorities framework, AVC undertook a literature review designed to identify relevant historical research under each program dating back to 1970. This literature review assessed a total of 130 publications and has been incorporated into the research priorities framework.
- **FRDC Analysis** – the FRDC is the principal source of funding for fisheries research in Australia. The limited leverage that WRL receives under its IPA is widely acknowledged. Furthermore, circumstances around FRDC, its future funding and research priorities are fluid. Because these circumstances impact on the importance of the WRL-FRDC relationship now and into the future, a detailed analysis of the FRDC’s finances and operations was undertaken. The Business Case was reviewed by FRDC who provided valuable input.
- **Business case** – the business case options; their analysis and prioritisation were articulated.
- **Governance framework** – a governance framework designed to ensure transparent, accountable, and efficient decision-making was articulated.
- **Draft Report to WRL Board** – AVC completed a draft business case for the proposed Western Rock Lobster Research Network for review and comment by the WRL Board.
- **Board approved Final Report issued to Industry** for further comment.
- **Industry responses** – were received and incorporated into the artefacts.

Subsequently, the WRL Board agreed to adopt the WRL Research Network – Research Priorities and Business Plan Publication for ongoing discussion towards implementation, while the research priorities plan will also continue to be reviewed by the IPA Committee and industry, to inform the WRL RD&E Plan ongoing.

At the FRDC-WRL IPA Committee meetings it was agreed that the research network document is a living document that will evolve as stakeholder needs around implementation develop.

Conclusion

The project is deemed to be successful because it has conducted:

- a) a comprehensive stakeholder, primarily Western Rock Lobster industry-driven Research Priorities framework which guides the activities and structure of the proposed Research Network and articulates the value it will deliver to stakeholders. It is aligned with the needs of key stakeholders, primarily industry operators, and has sufficient support necessary to attract the resources required to establish the proposed Research Network and ensure that it is sustainable.
- b) a detailed Business Case which outlines the organisational structure and management approach that will give effect to the Research Priorities Plan at a cost that is more aligned to the research investment that will be under management.
- c) a detailed and appropriate Governance Framework which is optimised with respect to the governance context and gives effect to well understood principles of good governance.

d) provides several variants of an Investment Proposal which reflects the requirements of different potential investors.

Implications

The WRL Board will embark on implementation planning discussions with all key stakeholders including Members, processors, researchers, and government. Implementation activities are not in scope for this project. The Research Network Publication will be used as the basis for discussion to determine the appropriate implementation activities, as it is a living document designed to reflect the evolving nature of the Research Network concept.

In the longer term, the impact of the Research Network is anticipated to be as follows:

- An increase in research directly linked to the industry's needs and goals may encourage new entrants into spiny rock lobster scientific and commercial fishing research.
- Increased ability to invest in research aimed at developing the industry's resilience and longevity through effective economics, innovation, and technology.
- Reduced decision-making timeframes.
- Increased transparency of investment decisions against industry priorities.
- Increased focus of management and administration costs.

Recommendations

Australian fisheries which face similar challenges to those of the Western Rock Lobster fishery may consider using this project's methods to investigate the feasibility of establishing similar research networks. It is imperative that industry's commercial Members collaborate with other industry stakeholders to determine research and development priorities.

Further development

The next step after this project is to consult key stakeholders on developing the WRL Research Network's implementation plan.

Extension and Adoption

Project coverage

The proposed WRL Research Network will continue to be discussed at WRL Board Meetings, FRDC-WRL IPA Committee Meetings, WRL-DPIRD Operational Meetings, Industry Forums, Industry Coastal Tours, AGMs, and through industry newsletters and emails to Members.

The concept and the documents/artefacts which support it are alive and will evolve as new stakeholder needs and information emerge.

Project materials

The following key documents are the main outputs of the project and are available on the website of the Western Rock Lobster Council by following [this link](#)

- WRL Research Network – Research Priorities and Business Plan Publication (includes the research priorities, business case, governance framework and investment proposal)

- The WRL RD&E Plan provides direction to the FRDC-WRL IPA and the proposed Research Network

Appendices

Appendix 1: Stakeholders

Significant input has been in the form of insights and professional opinions provided by participants in the Western Rock Lobster industry and other stakeholders and experts during 2020.

Western Rock Lobster fishers and processors

- Brad Arnup (WRL Board)
- Bruce Cockman (WRL Board)
- Greg Cole (Dongara PFA)
- Linda Cole (Dongara PFA)
- Glen Davidson (GFC)
- Kurt Glass (WRL FOC)
- Greg Hart (Wild Oceans)
- Marc Jurinovich (WRL FOC)
- Roger King (WRL Board)
- Basil Lenzo (GFC)
- Terry Lissiman (WRL Board)
- Clinton Moss (WRL Board)
- James Paratore (Fremantle PFA)
- Adam Radford (WRL FOC)
- Ian Ralph (Kalbarri PFA)
- Matt Rutter (GFC)
- Nic Sofoulis (CZCA PFA)
- Bruce Starling (Charter)
- Dave Thompson Jnr (CWC PFA)
- Linda Williams (CZCA PFA)

Scientific researchers and funders

- Crispian Ashby, General Manager- Research and Investment, Fisheries Research and Development Corporation
- Caleb Gardner, Researcher, University of Tasmania
- Patrick Hone, Managing Director, Fisheries Research and Development Corporation
- Janet Howieson, Researcher, Curtin University
- Tim Langlois, Researcher, University of Western Australia
- Chari Pattiaratchi, Researcher, University of Western Australia

Regulators

- Heather Brayford, Director General, WA Department of Primary Industries and Regional Development
- Nathan Harrison, Fisheries Manager, WA Department of Primary Industries and Regional Development
- Rick Fletcher, Director – Research, WA Department of Primary Industries and Regional Development

Other stakeholders and experts

- Colin Buxton, Chair, Southern Rock Lobster Limited
- David Carter, CEO, Austral Fisheries

- Kim Colero, former Chair, WRL
- John Fitzhardinge, Dongara Marine
- Annie Jarrett, CEO, NPF Industry Pty Ltd
- Brian Jeffries, researcher
- Sabine Ivey, ANZ Bank
- Terry Mouchemore, commercial fisher
- Clayton Nelson, Austral Fisheries
- Peter Rogers, independent consultant
- Luke Twomey, CEO WAMSI
- Paul Vogel, EPA Western Australia
- Tony Westerberg, formerly WAFIC

Appendix 2: Outputs

The following key documents are the main outputs of the project and are available on the website of the Western Rock Lobster Council by following [this link](#).

- WRL Research Network – Research Priorities and Business Plan Publication (includes the research priorities, business case, governance framework and investment proposal).
- The WRL RD&E Plan provides direction to the FRDC-WRL IPA and the proposed Research Network.