

## Overview

This section provides an overview of the Minerals Research Institute of Western Australia (MRIWA or the Institute), our vision and values and the broader MRIWA team who work to deliver on our strategic plan.



## Highlights

### COLLABORATIVE RESEARCH LEADERSHIP

Industry, academic and government relationships activate innovation and research networks attracting investment in high value activities



MRIWA partnered with the Critical Raw Materials for Electric Vehicles to host a European webinar to showcase Western Australia’s assets and capabilities in the battery supply chain and rare earth minerals



Preparation is underway for MRIWA’s Net Zero Emission Mining WA conference to be held October 2021

### IMPACTFUL RESEARCH

Applied research creates capability and delivers economic and social benefit for Western Australia



Launch of \$1 million targeted funding round to attract investment in our Net Zero Emission Mining focus area and priority themes



MRIWA Indigenous Postgraduate Scholarship introduced to complement existing scholarships offered



## Highlights (continued)

### KNOWLEDGE TRANSFER

MRIWA is well-known and its minerals research outcomes are implemented



Establishment of fortnightly enewsletter to promote MRIWA’s latest news, upcoming events, and project updates



Evaluation and review of MRIWA-funded research projects completed 2013-2018 and preparation of technical summaries for these projects

### GOVERNANCE

Robust governance and contemporary fit-for-purpose corporate practices



Inaugural MRIWA College Colloquium held November 2020



Results of Office of the Auditor General of Western Australia focus audit on our grant administration showed MRIWA’s practice in this area to be of a high standard



## Message from the Chair

On behalf of the Board of MRIWA, I am delighted to present the Annual Report for 2020-2021. We are very proud of the achievements of our team this year, including the progress of our research portfolio, and the implementation of a number of new initiatives.

Under our **Impactful Research** pillar, MRIWA administers a research grants program which leverages financial and in-kind contributions from industry and research organisations to build knowledge, create capability and deliver economic and social value for Western Australia.

In addition to our research grants, MRIWA has historically awarded at least two PhD research scholarships annually. During the year, we enhanced the value of these scholarships by offering recipients tailored professional and communication skills training, and a number of opportunities to engage with the MRIWA Board and College to develop their networks.

In June we were pleased to launch the MRIWA Indigenous Postgraduate Research Scholarship to support the development of research champions and industry thought-leaders from the Aboriginal community.

Under our pillar of **Collaborative Research Leadership**, the MRIWA College comprises leading experts in disciplines relevant to MRIWA's Research Priority Plan.

In November we held the inaugural College Colloquium, designed to leverage the extensive academic and industry experience of this group to inform our strategic plan and focus areas for future initiatives.

Launches of the Green Steel and Net Zero Emission Mining challenges followed, signalling MRIWA's intention to set specific research agendas, alongside our conventional grant application process.

In support of the WA Government's Future Battery Industry Strategy, MRIWA is a participant in the Future Battery Industries Cooperative Research Centre (FBI CRC) and supports 10 FBI CRC projects, some of which are being completed in two stages. The Board has focused on those projects likely to bring the most benefit to Western Australia in line with our mineral endowments and other competitive advantages.

MRIWA's third pillar is **Knowledge Transfer**, which recognises that the job of delivering value from research does not finish with the publication of a report, but that an important next step is to clearly communicate the research findings to drive implementation and adoption.

To this end, the Board endorsed a comprehensive communication strategy during the year. Many of our stakeholders will have observed a significantly increased social media presence from MRIWA as one result of this.

Finally, I would like to thank our Minister, the Hon. Bill Johnston, for his unfailing support for MRIWA and demonstration of the long-term commitment required to invest in minerals research throughout the economic cycle.

Thank you also to Deputy Chair Helen Cook, and our fellow board members for their considered stewardship of our organisation, and to our College members for bringing their expertise to grant assessments and informing the future priorities of MRIWA.

I also acknowledge the considerable effort of our small but hardworking team, ably led by CEO Nicole Roocke. Nicole has brought many new ideas to MRIWA and strengthened our links to industry and government, laying the groundwork for MRIWA to contribute even more to the advancement of Western Australia through minerals research.

I invite you to read on, to find out more about the progress of our research portfolio and our collaborative research leadership initiatives.

**Miriam Stanborough**  
Chairperson of the MRIWA Board



## Responsible Minister

Hon. Bill Johnston MLA, Minister for Mines and Petroleum.

## About Us

The Minerals Research Institute of Western Australia (MRIWA or the Institute) is a statutory body established by the Western Australian Government in 2013 under the *Minerals Research Institute of Western Australia Act 2013 (WA)* (the MRIWA Act).

### Our Work

MRIWA fosters and promotes minerals research for the benefit of the State by:

- Undertaking, procuring or managing minerals research projects;
- Fostering academic activities;
- Conferring and collaborating on matters relating to minerals research;
- Maintaining current knowledge of minerals research;
- Promoting awareness of and fostering public interest in matters relating to minerals research; and
- Providing advice to the Minister.

MRIWA may administer and co-invest in research projects undertaken within Western Australia, nationally and internationally. MRIWA collaborates with industry, research institutions and government partners to support research which will deliver tangible economic, environmental or social benefit for Western Australia.

As well as directly supporting minerals research projects, MRIWA funds are available for projects, programs and events that promote public awareness of, and interest in, minerals research.

Through our Education Program, we fund scholarships for PhD and postgraduate candidates where the field of study is relevant to the MRIWA objectives. Tailored professional and communication skills training is provided for postgraduate students accepted into the MRIWA program.

## Vision and Values



## Message from the CEO

Over the last financial year, the MRIWA team have continued to focus on delivering high quality grants administration while also exploring new opportunities.

### Key highlights

- Commencement of the Net Zero Emission Mining Challenge, which aims to reduce the carbon footprint, lower overall energy costs and improve the energy efficiency of the Western Australian mining sector through harnessing collective efforts, enabling decarbonisation to become an opportunity for the sector, not a cost.  
  
This year the Challenge involved the launch of a competitive grants round and agreement to partner with CSIRO and Praxera to deliver the Innovate to Grow Program.
- Continuing discussions on the potential opportunities for Green Steel, engaging with iron ore producers, the research community and steel manufacturers seeking to understand how Western Australia can leverage its amazing iron ore assets.
- Delivery of our Education Program and the provision of additional professional development to our scholars, including cultural awareness training.
- Introduction of project evaluations and review of our historic projects to determine impact resulting from the research. Our Retrospectives will be published via social media to further promote the learnings contained in completed projects.

### Significant Issues and Trends

#### Current and Emerging Issues and Trends

MRIWA's research program is highly regarded and funded through a combination of state government appropriation, federal government research grants and sponsorship from third parties.

Strategic changes in government policy, exposure to variations in economic conditions resulting from COVID-19 and decisions by other research grant bodies all influence the success and efficiency of this model. Maintaining key sponsor relationships is crucial to ensuring the continuity and momentum of key research programs.

While this year has seen a smaller number of projects approved by the Board, it has not reduced the volume of work for the organisation as we have been continuing to work with those leading research projects supported by MRIWA to deliver quality outcomes in challenging circumstances.

#### Likely Developments & Forecast Results of Operations

In the upcoming period MRIWA will continue to focus on proactively initiating conversations to determine those areas of minerals research where we can deliver maximum impact back to the State.

Our Net Zero Emission Mining and Green Steel Challenges provide us with the opportunity to champion existing capability and activity in Western Australia.

Next year will see us progress work on specific topics in each Challenge area to ensure we can effectively position Western Australia to thought leaders in these topics.

Throughout the year we continued the deployment and implementation of system improvements which enable us to operate flexibly and productively regardless of work location.

We have again had changes in our team. However, this has not impacted on our ability to deliver results and I would like to acknowledge the fantastic efforts of the MRIWA team and the way they continue to embrace new opportunities and find avenues to deliver outstanding results with the limited resources we have.

The MRIWA Board continues to ensure there is robust decision making and breadth in consideration of issues. Their commitment to MRIWA is appreciated and their insights enable us to be well positioned going forward.

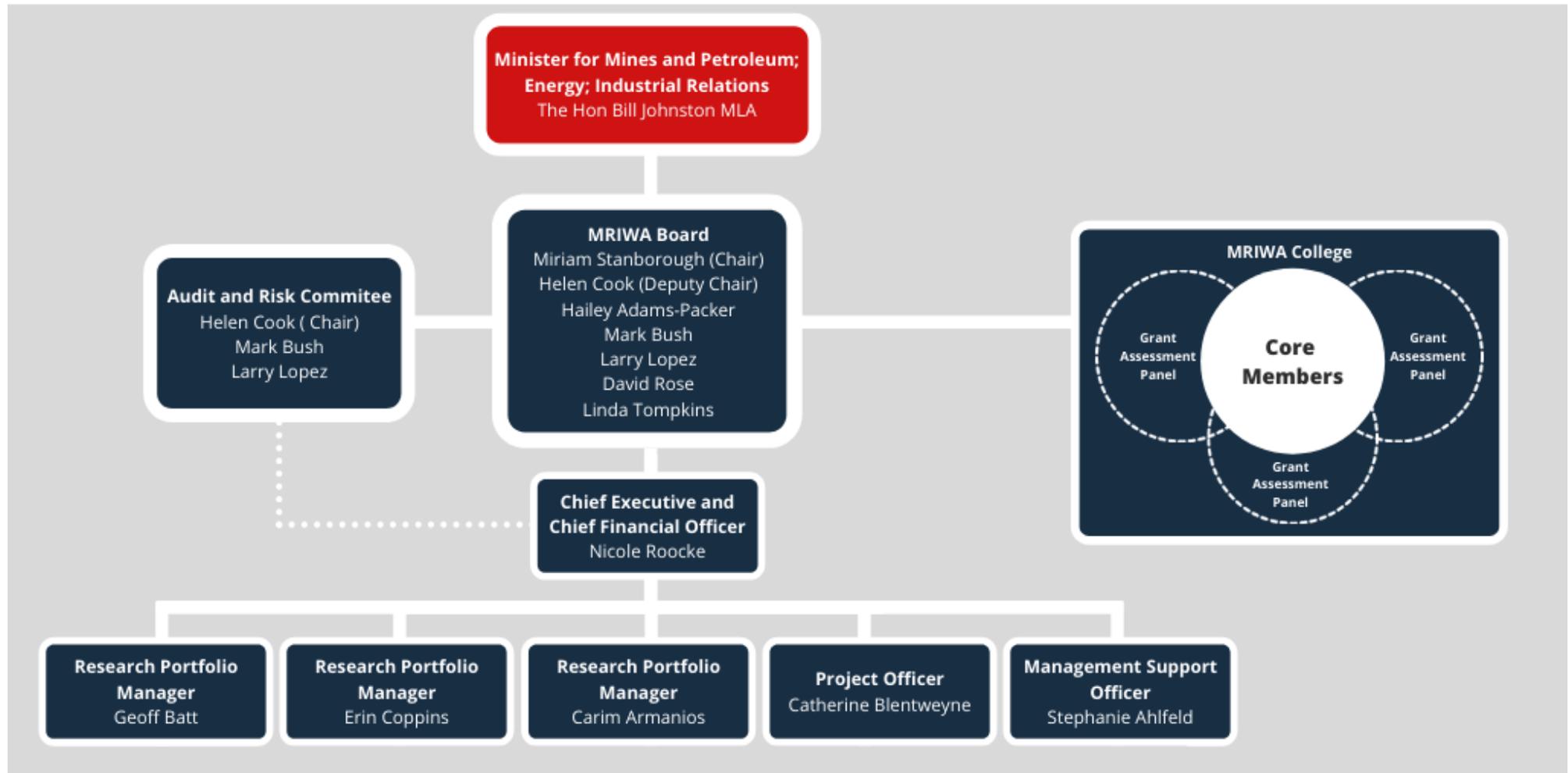
The Minister for Mines and Petroleum, the Hon. Bill Johnston continues to actively promote the capability of our organisation and his staff provide valued advice and support.

While the last twelve months have seen many challenges, MRIWA is well positioned to support minerals research in areas which will advance Western Australia over the coming years.

**Nicole Roocke**  
Chief Executive Officer and Chief Financial Officer



### Our Structure



The Organisation Chart is published on the MRIWA website <https://www.mriwa.wa.gov.au/about-us/our-people/>



## Our Team

### **Ms Nicole Roocke, Chief Executive Officer and Chief Financial Officer**

Appointed CEO in November 2018, Nicole joined MRIWA after spending 15 years at the Chamber of Minerals and Energy of Western Australia coordinating industry input on a variety of government regulatory and policy issues and facilitating collaboration within the resources sector.

Nicole holds a Master of Science in Industrial and Organisational Psychology from the University of Western Australia (UWA) and a Master of Risk Management from the University of New South Wales (UNSW).

### **Ms Stephanie Ahlfeld Management Support Officer**

Stephanie's career in the public service includes roles in administration, finance and human resources within a Regional Local Authority. She commenced as the Institute's Management Support Officer at the end of 2015 with a focus on customer service, compliance and continuous process improvement.

Stephanie holds a Bachelor of Commerce (Accounting) from Curtin University.

### **Dr Carim Armanios Research Portfolio Manager**

Carim joined MRIWA in January 2021 as Research Portfolio Manager and brings with him over 25 years' experience working in R&D, with roles in mineral refining, environmental solutions, research management, technology deployment and commercialisation as well as business improvement and strategy.

He holds a first-class honours in Applied Chemistry and a PhD in Petroleum Geochemistry from Curtin University and later in his career obtained an MBA from the University of Western Australia.

### **Ms Catherine Blentweyne Project Officer**

Catherine has over 12 years' experience supporting research, with roles in libraries, administration and research development.

She maintains a strong interest in scholarly communication and metrics-based evaluation of research quality and impact.

Catherine holds a Master of Information Studies in Information Architecture from Charles Sturt University (CSU).

### **Dr Geoffrey Batt Research Portfolio Manager**

Geoff has been a Research Portfolio Manager providing strategic direction and project management services for MRIWA since 2019. He leads MRIWA's education and scholarship programs and maintains a strong focus on science communication, supporting the accessibility and transferability of research innovation in the applied mining sector.

An experienced research scientist and manager, Geoff came to MRIWA from a private sector consulting role and has spent 20 years as a successful and respected researcher and educator at leading institutions around the globe.

He holds a PhD in Earth Science from the Australian National University (ANU), and an MBA from UWA.

### **Ms Erin Coppins Research Portfolio Manager**

Erin joined the MRIWA team as a Research Portfolio Manager in May 2021, bringing experience in strategic advice, project and contract management across the public and private sectors. She is leading the MRIWA Challenge on Net Zero Emission Mining and has a strong focus on strategic development and stakeholder engagement.

With a passion for sustainability and a background in clean energy and regional development, Erin came to MRIWA having been involved in the development of State Government renewable energy priorities including COVID-19 recovery projects and the WA Renewable Hydrogen Strategy.

Originally from the United Kingdom, she holds an MSc in International Development and a Bachelors degree in Law from the University of Bristol.



## Our Board Members



**Ms Miriam Stanborough** became Chair of MRIWA in January 2020.

Miriam is a chemical engineer with more than 20 years' experience in the minerals processing industry, across commodities including copper, uranium, gold, silver, alumina and mineral sands. Miriam is currently Group Manager – Productivity and Innovation with Monadelphous.

Miriam has held roles in technical development, production management, project management, business improvement, HR & diversity strategy, and sales and marketing.

She holds additional degrees in Arts and Mineral Economics, is a member of the Australasian Institute of Mining and Metallurgy and is a graduate of the Australian Institute of Company Directors.

Miriam's other current board roles include Deputy Chair of the Northern Agricultural Catchments Council and Director of Scouts WA. With her husband, she runs a beef cattle operation, and she also sits on the Independent Assessment Committee for the Federal Government's Boosting Female Founders Initiative.



**Ms Helen Cook** has longstanding board experience across various sectors and has been Deputy Chair of the MRIWA Board since 2017 and Chairman of the Audit and Risk Committee since 2014.

The National Partner in charge of KPMG's Energy and Natural Resources Group until 2014, she then commenced Non-Executive Directorship roles with RAC Holdings, RAC Finance and RAC Insurance.

She currently serves on the UWA Mining Energy and Natural Resources Law Advisory Board, Juniper Aged Care Board, and a Finance and Governance Panel for the Australia Council, and is a Councillor of the National Gallery of Australia, WA Councillor of the Australian Institute of Company Directors, and a member of Chief Executive Women.

Helen's past board roles include Deputy Chair of Fremantle Ports, Chair of the Art Gallery of WA, Director of the Perth Theatre Trust and various roles in the resources and commercial sectors.



**Ms Hailey Adams-Packer** has considerable public policy experience having worked across a number of portfolios within Western Australia's public service.

She has worked within the mining and petroleum portfolio since 2013. Currently in the role of General Manager Title Compliance, Hailey is well recognised for her leadership, strategic thinking and policy development.

Hailey is also the Managing Director of Pacmentality Consulting, a digital business support agency and brings a unique blend of experience in technology, business, organisation development and government relations.

Outside of the workplace, Hailey represents Western Australia in lawn bowls and actively gives back to her sport through her involvement as a member of the BowlsWA Board's Club Development committee.



## Overview

## Our Projects

## Financial Statements and Notes

## Our Governance

## Our Performance



**Professor Mark Bush** has over 30 years of experience in research, research leadership, grant assessment and grant administration, while holding various academic and leadership positions with UWA.

Mark brings with him a broad knowledge of Engineering. He is currently Emeritus Professor with UWA and has served as Head of Department of Mechanical and Materials Engineering; Dean of the Faculty of Engineering, Computing and Mathematics; and Director of Animal Research Services.

He is an Honorary Fellow of Engineers Australia (Hon FIEAust), Chair of the National Engineering Accreditation Board and Chartered Professional Engineer (CPEng), and Fellow of the Academy of Technological Sciences of Engineering (FTSE), and has served in various leadership positions in these organisations.



**Mr Larry Lopez** is a Partner at Perth-based Australian Venture Consultants. Larry has over 35 years of experience financing innovative projects and companies. He has held numerous executive roles in government agencies, and private and public companies that enable the commercialisation of research outputs and intellectual property.

Larry is the Chair of Fulbright Australia and a non-executive director of several private companies. He also sits on a number of not-for-profit boards including the Centre for Entrepreneurial Research and Innovation. He has been a director or partner in four venture capital funds, including funds investing in technology that enables the mining sector. Larry is currently a General Partner at AC Ventures, a venture capital fund focussed on investing in and growing early-stage Australian Companies.

Larry obtained a BSc from Menlo College, School of Business Administration and is a graduate of the Pacific Coast Banking School at the University of Washington.



**Mr David Rose** is a Director in mining consulting with KPMG, with 35 years of diverse experience in the mining industry across gold, base metals, coal, diamonds and iron ore, in both open pit and underground operations.

David's most recent executive roles were Chief Operating Officer, St Barbara Ltd, and Managing Director, Rio Tinto (Argyle Diamonds and Rio Tinto Iron Ore).

His consulting engagements have included expert panel reviews, operational improvement projects and management systems upgrade projects for mature operating mines. He has also undertaken operational readiness and systems design engagements for pre-start-up and transitional mines, in Australia and overseas.

David is a past Deputy Chairman and now Honorary Fellow of Leadership WA, a Fellow of the AusIMM, a Graduate of the AICD, President of Rowing WA and the Deputy Chair of St Catherine's College (UWA).



**Dr Linda Tompkins** has over 35 years of global experience in the resource sector through professional roles as a research and exploration geologist, technical director of an ASX- and AIM- (London) listed exploration company, corporate and resource lawyer, and group general counsel and company secretary of an ASX-listed company with overseas mining interests.

She has on-site experience in Australia, Brazil, China, and Africa in exploration, development, and mining operations for diamonds, lead-zinc, nickel and gold.

Linda has a PhD (Geology) and LLB (Hons) from The University of Western Australia (UWA), and is a member of the Geological Society of Australia and the Resources and Energy & Resources Law Association (formerly AMPLA).

She is also a director of the Munda Biddi Foundation. Her past board roles include director of the AMPLA national board, member of the advisory board of the UWA Geoscience Foundation, and other roles in the resources sector.



## MRIWA Board

MRIWA Board members are appointed by the Minister for Mines and Petroleum, in accordance with Section 27(1) of the MRIWA Act and are remunerated by an annual fee set by the Public Sector Commissioner. The fee has not been varied since first established on 20 December 2013.

Membership as at 30 June 2021	Initial Appointment	Term Expiry	No. of Meetings Attended	Sitting fees (\$)
Miriam Stanborough (Chair)	1 Oct 2017	31 Dec 2022	5 of 5	22,691 <sup>(a)</sup>
Helen Cook (Deputy Chair and Chair, Audit and Risk Committee) <sup>(b)</sup>	28 Jan 2014	31 Jan 2023	4 of 5	13,614
Hailey Adams-Packer	1 Feb 2020	31 Jan 2023	5 of 5	0 <sup>(c)</sup>
Mark Bush <sup>(b)</sup>	1 Feb 2016	31 Dec 2021	5 of 5	11,405 <sup>(a)</sup>
Larry Lopez <sup>(b)</sup>	1 Jan 2016	31 Dec 2021	5 of 5	11,405 <sup>(d)</sup>
David Rose	1 Jun 2018	31 Apr 2024	5 of 5	11,405 <sup>(d)</sup>
Linda Tompkins	1 Mar 2020	28 Feb 2023	5 of 5	11,405

(a) Foregoes a portion of remuneration and donates back to the MRIWA Directors' Scholarship

(b) Audit and Risk Committee Member - the Committee assists the MRIWA Board by providing an objective review of the effectiveness of the financial management and reporting, risk management, audit and compliance framework. The Chief Financial Officer and Deloitte attend ex-officio

(c) Ineligible for remuneration in accordance with Premier's Circular 2019/07 State Government Boards and Committees

(d) Foregoes all remuneration and donates back to the MRIWA Directors' Scholarship



## Legislation

### *Enabling and Administered Legislation*

MRIWA was established as an agency in February 2014, under the *Minerals Research Institute of Western Australia Act 2013* (WA).

The Institute administers only the *Minerals Research Institute of Western Australia Act 2013* (WA).

### *Other Key Legislation Impacting on our Activities*

In the performance of its functions, the Institute complies with other relevant written laws including the following Western Australian legislation:

- *Auditor General Act 2006*
- *Disability Services Act 1993*
- *Electoral Act 1907*
- *Equal Opportunity Act 1984*
- *Financial Management Act 2006*
- *Freedom of Information Act 1992*
- *Government Employees Superannuation Act 1987*
- *Industrial Relations Act 1979*
- *Interpretation Act 1984*
- *Library Board of Western Australia Act 1951*
- *Limitation Act 1935*
- *Minimum Conditions of Employment Act 1993*
- *Occupational Safety and Health Act 1984*
- *Public Interest Disclosure Act 2003*
- *Public Sector Management Act 1994*
- *Salaries and Allowances Act 1975*
- *State Records Act 2000*
- *State Supply Commission Act 1991*
- *Workers' Compensation and Injury Management Act 1981*



MRIWA staff and PhD scholars participating in a Cultural Awareness Workshop March 2021

## Report on Operations

### Actual Results versus Budget Targets

	2021 Target \$	2021 Actual \$	Variation \$
Total cost of services	9,610,901	7,668,515	1,942,386
Net cost of services	6,228,199	4,867,085	1,361,114
Total equity	6,964,520	9,860,619	2,896,099
Net increase / (decrease) in cash held	(811,531)	600,061	1,411,592
Approved salary expense level	785,155	828,373	43,218

For detailed information on MRIWA's financial performance, refer to the *Financial Statement and Notes* section of this report.

### Summary of Key Performance Indicators

Key Effectiveness Indicator	2020-21 Target	2020-21 Actual
Ratio of total cash investments in research projects to total approved MRIWA cash investment in those research projects	4	239.34
Key Efficiency Indicator	2020-21 Target	2020-21 Actual
Total administration cost for the year as a percentage of the total cash value of research projects and the education program under management during the year	4%	1.31%

For detailed information on MRIWA's Key Performance Indicators, refer to the *Our Performance* section of this report.

