Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**

Mining Rehabilitation Fund

Yearly report 2019–20

Welcome to the 2019–20 yearly report for the Mining Rehabilitation Fund.

This report outlines the functions and achievements relating to the Mining Rehabilitation Fund and Abandoned Mines Program from 1 July 2019 to 30 June 2020. DMIRS is committed to good governance and this report seeks to provide a transparent summary of the administration of the *Mining Rehabilitation Fund Act 2012* (WA).

Background

The Department of Mines, Industry Regulation and Safety's (DMIRS) Mining Rehabilitation Fund (MRF) is a pooled fund to which Western Australian (WA) mining operators contribute.

The MRF was enacted via the *Mining Rehabilitation Fund Act 2012* (WA) (MRF Act) and introduced in 2013 to ensure the community does not pay for the rehabilitation of abandoned mining operations that are abandoned. All tenement holders operating on *Mining Act 1978* (WA) (Mining Act) tenure (with the exception of tenements covered by State Agreements not listed in the regulations) are required to report disturbance data and contribute annually to the fund according to the environmental disturbance on tenements.

Money contributed into the fund is available to rehabilitate abandoned mines across the State in circumstances where the tenement holder/operator has failed to meet rehabilitation obligations and efforts to recover funds from the holder/operator have been unsuccessful. Interest earned on fund contributions is used to fund the administration of the MRF and to undertake rehabilitation work on legacy abandoned mine sites throughout the State.

The MRF is administered via a Special Purpose Account under the *Financial Management Act 2006* (WA) and funds must be spent in accordance with the purposes set out in the MRF Act for which the Director General of DMIRS is accountable.

DMIRS reports on the management of the fund in its Annual Report. In addition, the State Government considers and approves the projected revenue and expenditure for the MRF through the State Budget each year. This more detailed, supplementary report presents the activities and achievements of the MRF in 2019–20 FY, as well as providing an indication of future plans.

Activities of Mining Rehabilitation Advisory Panel

The Mining Rehabilitation Advisory Panel (MRAP), as prescribed in the Mining Rehabilitation Fund Regulations 2013, provides advice to the Director General of DMIRS on matters relating to the fund and associated Abandoned Mines Program (AMP). The current members of MRAP (pictured below), appointed for a three-year term from March 2019, are Sally Audeyev (Chairperson), Michelle Rhodes (Deputy Chairperson), Andrew Cuthbertson, Angela Bishop and Kapila Karunaratna.

SALLY AUDEYEV

is a leading projects and resources lawyer, specialising in environmental, indigenous, planning, mining and resources issues.

MICHELLE RHODES

is a director of a leading environmental consultancy company and has 22 years' experience in stakeholder engagement and the environmental sector.

ANDREW CUTHBERTSON

has more than 40 years' experience within the industry in senior management and executive roles. He has significant experience in community and stakeholder engagement, environment and safety best practice.

ANGELA BISHOP

has more than 20 years' experience working for government and industry in an operational and corporate capacity in the areas of environmental management and regulatory compliance, environmental approvals, rehabilitation, closure and relinquishment.

KAPILA KARUNARATNA

is a company director, with extensive experience in senior management roles, and a qualified mining engineer with more than 35 years' experience in all stages of natural resource planning and management from start to closure.

MRAP typically meets quarterly to discuss and provide independent advice on a range of matters relating to managing the MRF and work activities associated with the Abandoned Mines Program (AMP). During the 2019–20 FY, the frequency of quarterly meetings was impacted by the COVID-19 pandemic, with the March 2020 meeting cancelled.

During the 2019–20 FY, MRAP undertook a range of activities including the following:

- MRAP attended a Strategic Workshop in January 2020 and agreed to commence additional monthly workshop meetings with DMIRS to improve interaction and participation in AMP projects. These workshop meetings are in addition to the formal meetings of MRAP and act to provide a forum in which MRAP can contribute to the technical detail of the AMP.
- MRAP endorsed the publication of a notice to gazette the abandoned Ellendale Diamond Mine's borefield. The borefield was not part of the original triage of work that centred around the plant areas and contamination from hydrocarbons. The recent gazettal allows DMIRS to commence work to cap approximately 10–20 production bores including further removal of scrap that had not previously been identified between Ellendale's E4 and E9 open pit mines. The production bores are reportable to the Department of Water and Environmental Regulation (DWER), who will be updated as the project progresses.
- MRAP endorsed the publication of a notice to gazette the historic Wheal Ellen mine site to commence work to remediate abandoned shafts and an open pit mine. Wheal Ellen is part of the Department of Planning, Lands and Heritage (DPLH) Northampton Lead Tailings Project, to build new containment cells for lead tailings at the site. DPLH has requested the assistance of DMIRS to remediate the pit and shafts which are classed as high risk. The shafts are in close proximity to roads that require access by heavy machinery.

Mining Rehabilitation Fund

MRF Lodgement

In Western Australia, all tenement holders are required to submit disturbance and rehabilitation data for mining operations under the *Mining Act 1978* (WA) (Mining Act). The disturbance data submitted allows the department to calculate an appropriate levy that the holder will contribute to the MRF. Tenement holders are not required to pay a levy if they have a rehabilitation liability estimate below a threshold of $50,000, however they are still required to lodge an MRF report.

The MRF reporting period is aligned with the financial year (FY) 1July to 30 June and tenement holders are able to submit data at any time during this period. These reports may then be selected for compliance review to identify any discrepancies in reporting. This review process is a means of assuring DMIRS of the continued appropriateness of self-assessment of disturbance information, and also allows the department to undertake a more targeted approach for onsite inspections.

In the 2019–20 FY, the level of compliance with reporting obligations under the *Mining Rehabilitation Fund Act 2012* (WA) (MRF Act) remained very high with 99.1% of all reports provided by the due date (Figure 1). The level of compliance continues to increase every year, with this year's percentage also slightly higher than previous years.

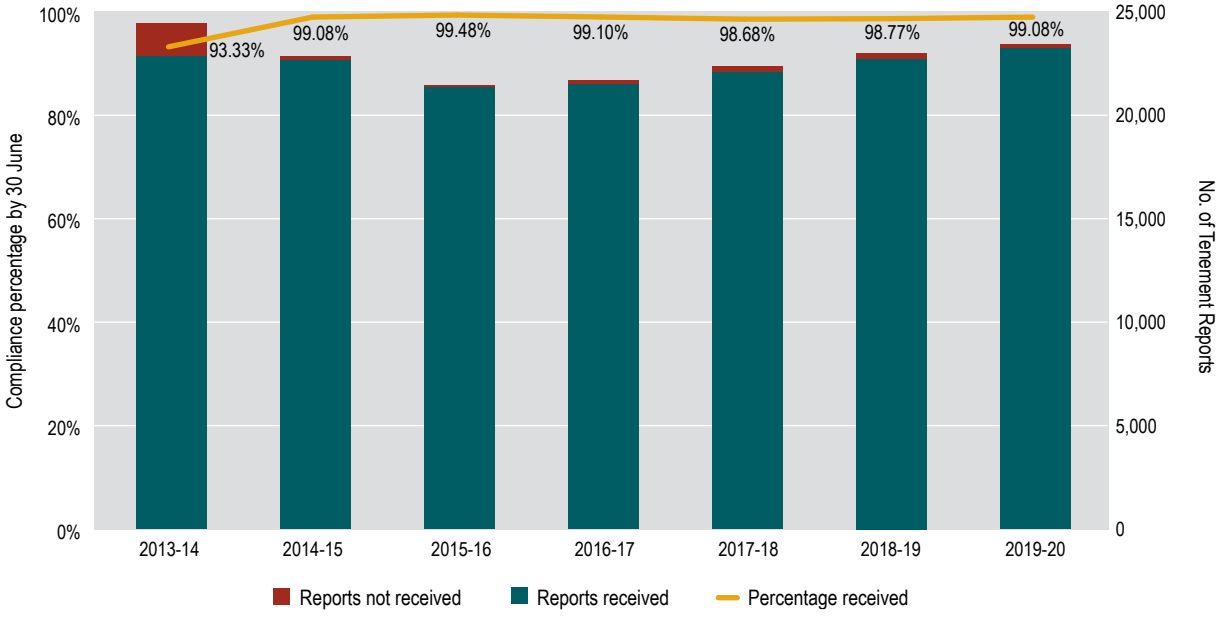

Figure 1 - Percentage of tenement reporting obligations met by 30 June for each levy period

Projected Levy for the 2019–20 Period

Levy payments totalling $35.1 million have been assessed for the 2019–20 FY period (Figure 2) based on assessment information provided up to 22 September 2020, in comparison to $32.7 million last year. This represents a 7.3% increase from the 2018–19 period.

Assessment information can be formally reassessed under the MRF Act for up to two years after the date of the original assessment. This means that the final total levy calculated for a levy period may vary from the amount initially reported.

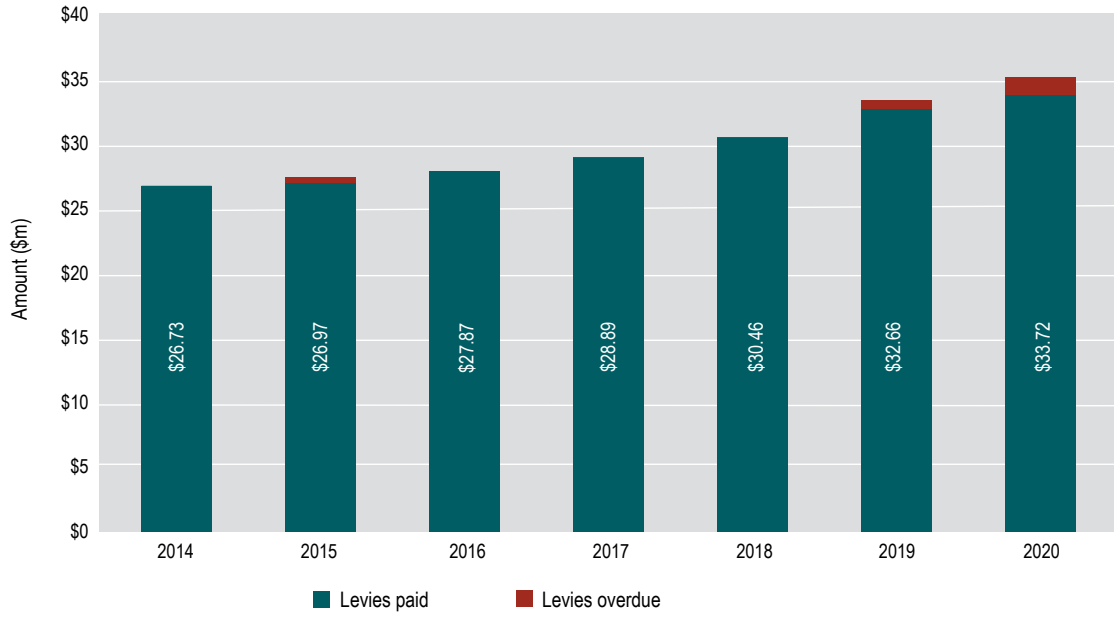

Figure 2 - Levies assessed and paid 2014-2020

Enforcement

The MRF was first introduced for the period ending 30 June 2013, at which time tenement holders that held Unconditional Performance Bonds (UPB) under the State's former mining securities system were able to apply to participate in the Fund voluntarily and to have their UPBs returned. The MRF became mandatory for the period ending 30 June 2014 when DMIRS began issuing infringement notices to tenement holders who failed to comply with their reporting obligations by 30 June. Under the *Criminal Procedure Act 2004* (WA), a modified penalty of $4,000 applies for each tenement.

For the 2019–20 FY, DMIRS served 193 infringement notices to tenement holders that failed to submit assessment information by the 30 June 2020 deadline. Most tenement holders that received an infringement notice provided the information before the Final Demand was served - that is, within 28 days of issue - and as such 183 notices were subsequently withdrawn. As at 29 September 2020, only eight of the 193 issued notices remain with the Fines Enforcement Registry. Figure 3 illustrates the changes in enforcement measures since 2014.

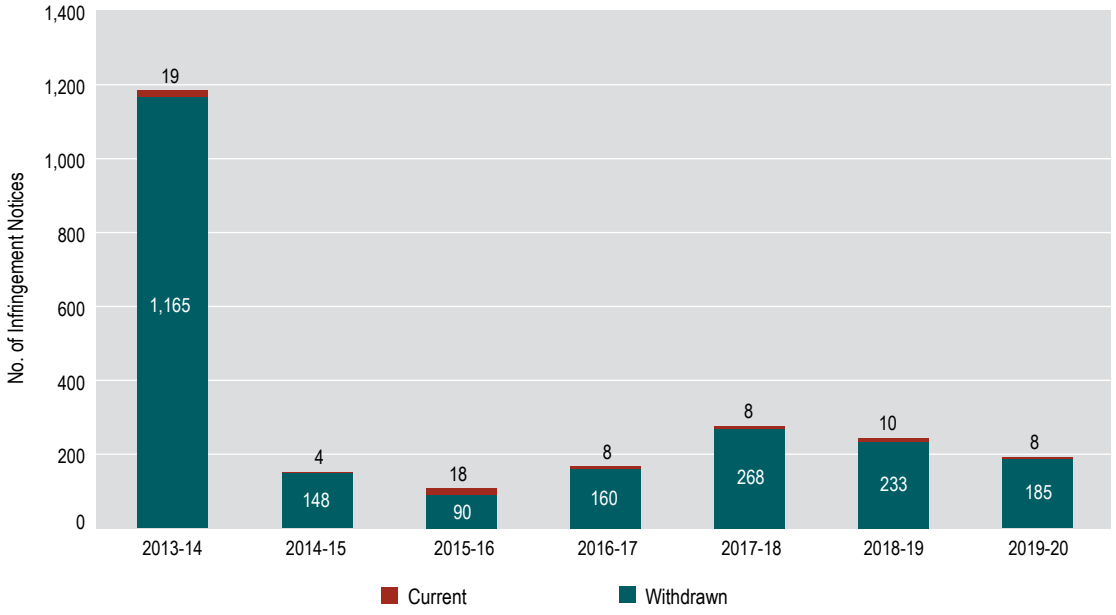

Figure 3 - Infringement notices issued for failure to provide Mining Rehabilitation Fund assessment information

Annual MRF Compliance Assessment

DMIRS undertakes compliance assessments of MRF reports to verify that the self-assessed data submitted by tenement holders is accurate and ensuing MRF levy contributions are correct.

In the 2019–20 FY, 2,166 tenements across 70 MRF reports for the 2018–19 FY levy period were reviewed and, of these, 279 tenements were confirmed to have incorrect assessment information that required amendment. The outcomes of the compliance plan were amendments of 327 individual ground disturbing activities resulting in additional levy payments of $375,934.31 and refunds of $25,709.51.

Figure 4 below illustrates the distribution of discrepancies reported as well as the type of discrepancy.

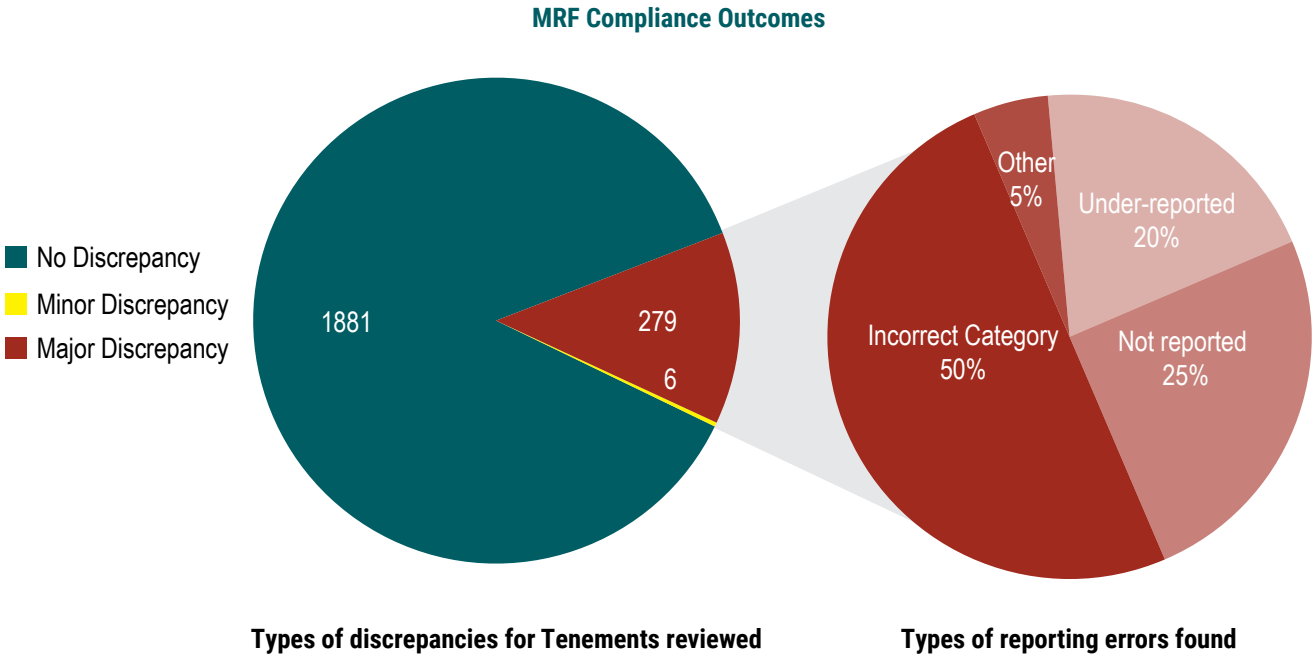

Figure 4 - Discrepancies found for tenements reviewed

The most common type of errors identified in reporting are summarised below:

- Under-reporting of transport or service infrastructure corridors (roads and tracks) continues to be a common type of error identified.
- 'Rehabilitation' and 'land under rehabilitation' continue to present a number of challenges. The following clarifications are provided to assist tenement holders with future submissions:
  - A mining activity can be categorised as 'rehabilitated' once rehabilitation works have been completed in accordance with all the closure obligations that apply to the tenement and signed off, by the appropriate officer. This may be under a tenement condition, programme of work, mining proposal or another approval.
  - A mining activity can be categorised as 'land under rehabilitation' once all required rehabilitation earthworks have been completed in accordance with closure obligations.

MRF Data for 2019–20 FY

Each year DMIRS publishes the MRF Data Release which makes available disturbance and rehabilitation data on tenure held under the Mining Act that is subject to the requirements of the MRF Act. It does not include tenure held under State Agreements.

The assessment information submitted under the MRF Act is considered the most comprehensive publicly available dataset of mine-site activities in Australia and is available for download through the DMIRS website. (www.dmp.wa.gov.au/Environment/What-is-the-MRF-19522.aspx). A summary of this dataset is also provided at the end of this report.

For the 2019–20 FY period, the area of land reported as 'under rehabilitation' (that is, where rehabilitation was in progress) increased by nearly 3,400ha (8.9%) to 41,535ha. In the same period, the area of 'active' disturbance increased by approx. 9,600ha (7.0%) to 147,196ha. This means that land under rehabilitation represents 22% of all disturbed land (that is, including land in the process of being rehabilitated) and 28% of the area of active disturbance.

A very similar result was achieved in the 2018–19 FY period and, with land under rehabilitation averaging 23% of the total since 2014–15 FY (Figure 5), it suggests that rehabilitation work is continuing to keep pace with increased mining activity.

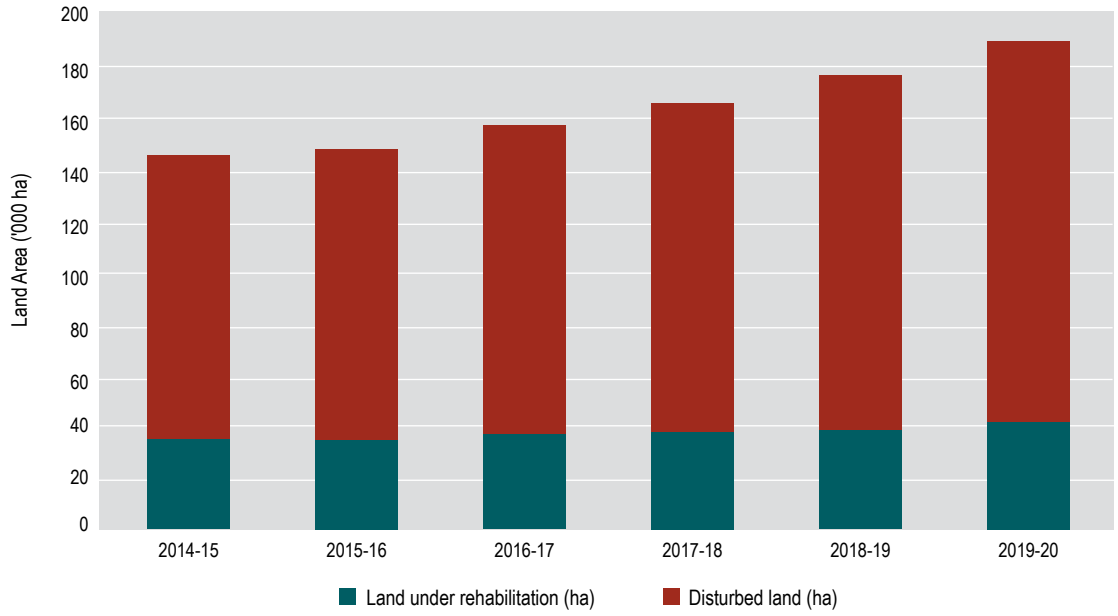

Figure 5 - MRF data reported for land under rehabilitation

In 2019–20 FY mine activity increased by 7%. Land under rehabilitation has averaged 23% since 2014–15 FY.

A summary of this year's data reported for each tenement type is provided in Table 1. Note that areas reported for the periods 2017–18 FY and 2018–19 FY reflect modified data provided during the period 2019–20 FY(in conjunction with reassessment of levies).

	Disturbed Land (ha)								Land Under Rehabilitation (ha)							
	2016–17	2017–18	2018–19	2019–20	Change 2016–17 (%)	Change 2017–18 (%)	Change 2018–19 (%)	Change 2019–20 (%)	2016–17	2017–18	2018–19	2019–20	Change 2016–17 (%)	Change 2017–18 (%)	Change 2018–19 (%)	Change 2019–20 (%)
Exploration Licences	9,646	10,527	12,442	12,163	24.8%	9.1%	18.2%	-2.2%	38	32	28	26	5.5%	-16.0%	-14.0%	-6.9%
General Purpose Leases	3,153	3,133	3,161	3,318	1.9%	-0.6%	0.9%	5.0%	789	1,002	755	958	-2.8%	27.1%	-24.7%	27.0%
Miscellaneous Licences	11,834	12,892	13,849	15,689	6.7%	8.9%	7.4%	13.3%	1,040	947	2,070	2,040	13.1%	-9.0%	118.6%	-1.5%
Mining Leases	93,952	99,317	107,065	115,003	4.9%	5.7%	7.8%	7.4%	34,707	35,580	35,243	38,457	5.9%	2.5%	-0.9%	9.1%
Prospecting Licences	641	602	636	754	-0.2%	-6.2%	5.7%	18.6%	63	65	53	54	-6.3%	3.6%	-19.3%	3.5%
Retention Leases	373	383	390	269	5.2%	2.6%	1.8%	-31.1%	0	0	0	0				
Total	**119,599**	**126,854**	**137,544**	**147,196**	**6.3%**	**6.1%**	**8.4%**	**7.0%**	**36,637**	**37,626**	**38,149**	**41,535**	**5.9%**	**2.7%**	**1.4%**	**8.9%**
Percentage of Total Area	76.6%	77.1%	78.3%	78.0%					23.4%	22.9%	21.7%	22.0%				

Table 1: MRF Summary Data Reported for the period through to 2019–20.

Note: Areas reported for the periods 2017–18 and 2018–19 reflect modified data provided during the period 2019–20 (in conjunction with reassessment of levies).

Disturbed land

In the 2019–20 FY, precious metals mining, (which includes gold), was the highest contributor to disturbed land of all commodity groups, comprising 52% of total disturbed land - steady on its share of 51% in the 2014–15 FY.

Steel alloy metals mining (which includes nickel) was the second largest contributor to disturbed land in the 2019–20 FY, comprising 20% of total disturbed land, down from 25% in the 2014–15 FY.

Iron ore mining was the third largest contributor to disturbed land in the 2019–20 FY, comprising 18% of total disturbed land, up from 13% in the 2014–15 FY (acknowledging the MRF data excludes State Agreement Act projects). Iron ore experienced the largest proportional growth in land disturbance over the period, with the volume of iron ore disturbance doubling over the period, at an average annual growth rate of 15%.

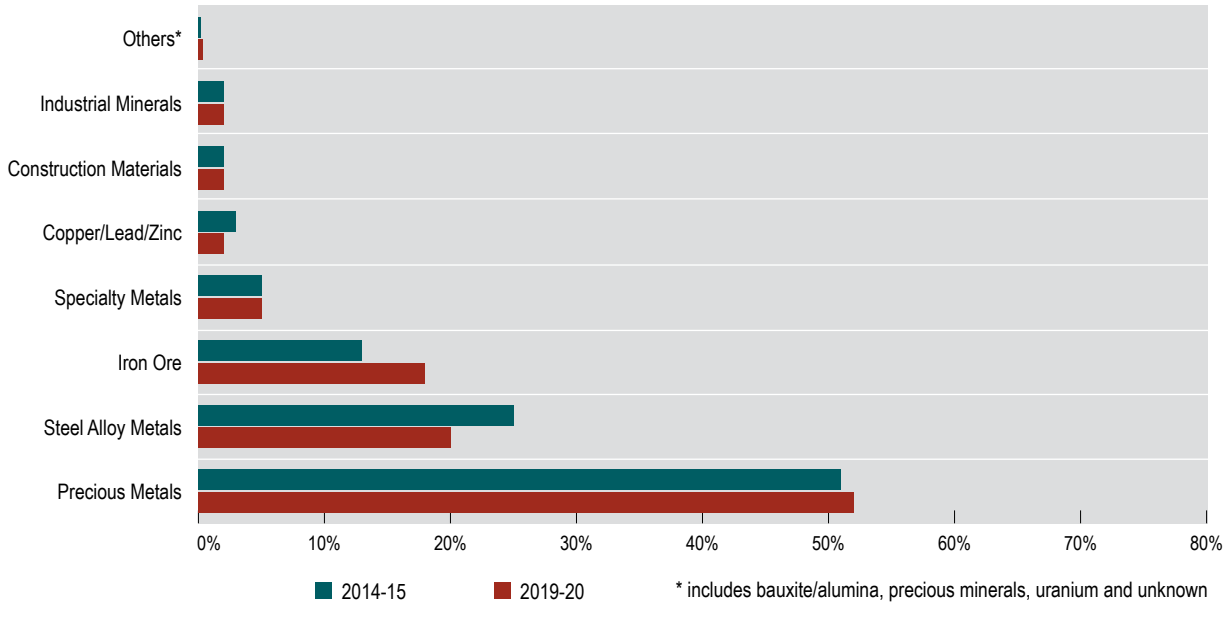

Figure 6 - Share of total disturbed land, by commodity type

Land under rehabilitation

While precious metals mining contributed the most to disturbed land over the period, it also accounted for the largest volume increase in land under rehabilitation over the period and accounted for the largest share of total land under rehabilitation in the 2019–20 FY (73%), however this share decreased slightly from 76% in the 2014–15 FY.

Proportionally, iron ore experienced the largest growth in land under rehabilitation over the period, with the volume of land under rehabilitation increasing 217% from the 2014–15 FY to 2019–20 FY, an average annual growth rate of 26%.

The volume of land under rehabilitation in Western Australia has seen significant growth over the past five years and many companies in the mining sector have worked to maintain the proportion of progressive rehabilitation being undertaken, in line with historical performance.

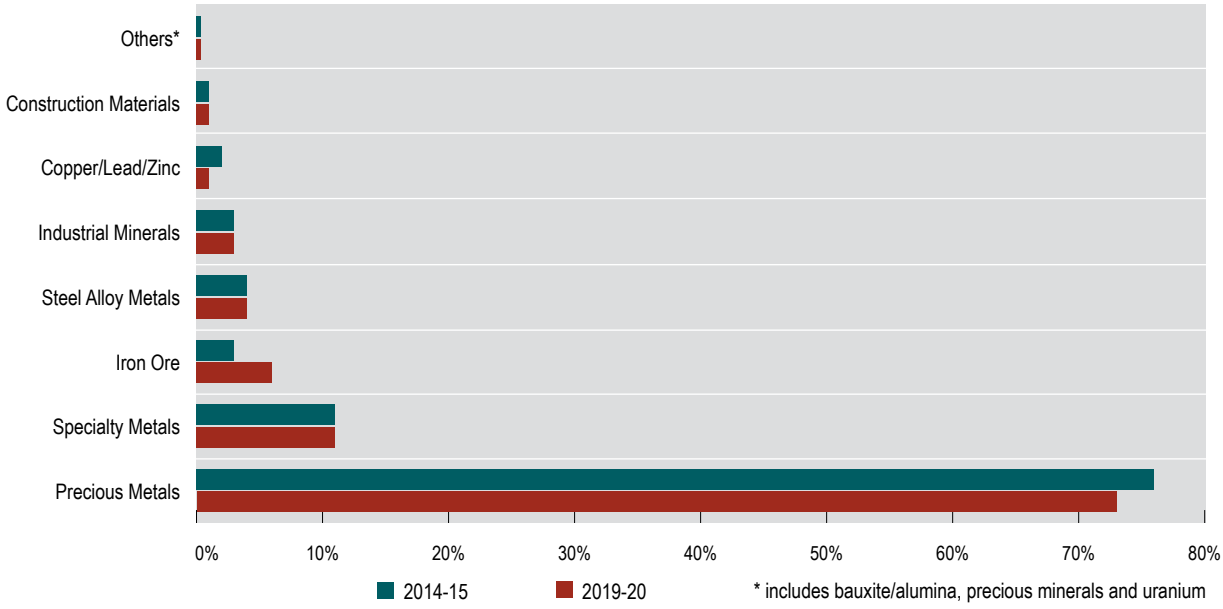

Figure 7 - Share of total land under rehabilitation, by commodity type

Financial Summary

The MRF is a Special Purpose Account under Section 18 of the *Financial Management Act 2006* (WA) and, in accordance with Section 10 of the MRF Act, principal funds are used to rehabilitate abandoned mine sites after exhausting all other avenues to recover expenses from the tenement holder. Interest generated from the MRF is used to rehabilitate legacy abandoned mine sites (sites that have not had an MRF reporting obligation).

DMIRS reports the performance of the MRF in its Annual Report, which is available on its website. A summary of this information is provided in Table 2. This report is an expanded summary to showcase the activities within the MRF and the Abandoned Mines Program.

		2016-17 Actual	2017-18 Actual	2018-19 Actual	2019–20 Actual	2020-21 Estimated
		$'000	$'000	$'000	$'000	$'000
Opening Balance		**63,377**	**92,400**	**122,616**	**150,473**	**185,237**
Add receipts						
	Contribution from Industry	28,348	28,653	30,723	33,902	32,000
	Interest Received	1,654	2,223	3,094	1,644	4,000
	Other	16				
	RECEIPTS SUBTOTAL	30,018	30,876	33,817	35,546	36,000
Less payments						
	Salaries	163	144	163	388	
	Operational Expenditure	832		479	94	
	Other		516	5,318*	300	5,000**
	PAYMENTS SUBTOTAL	995	660	5,960	782	5,000
Balance at the end of the period		**92,400**	**122,616**	**150,473**	**185,237**	**216,237**

Table 2: MRF Financial Summary

* *MRF's Treasury Advance repayment.*

** *MRF expenditure budget including administration and rehabilitation.*

At the end of the MRF Levy reporting period of 30 June 2020, levies received into the fund inclusive of net interest, less disbursements totals $185.2 million, including $3.7 million in accumulated net interest since 1 July 2014. Table 3 provides a breakdown of the expenditure by the AMP in the 2019–20 FY.

Project	Expenditure from MRF Principal $'000	Expenditure from MRF Interest $'000	Total Expenditure to 30 June 2019 $'000
	Project Costs	Project Costs	
Ashmore and Seppelt Diamond Mines (Striker / Merlin Diamonds)	0	0	0
Bulong Nickel Tailings Storage Facility Pilot Site	0	125	125
Donnybrook shaft remediation	0	0	0
Ellendale Diamond Mine	122	0	122
Elverdton Pilot Site	0	55	55
Emerald Reward mine shaft - Yalgoo	0	10	10
Wheal Ellen shaft remediation	0	0	0
Total	**122**	**190**	**312**

Table 3: Breakdown of sources and applications of funds for Abandoned Mine projects 2019–20

Abandoned Mines Program (AMP) – Project Status

Funds contributed to the MRF can be used to rehabilitate mine sites that have become abandoned by companies that have previously paid into the MRF, after all other avenues to ensure rehabilitation have been exhausted. Interest generated on the funds contributed to the MRF can be used to rehabilitate legacy abandoned mine features for which contributions to the MRF were not made.

While the second half of the 2019–20 FY proved challenging for the Abandoned Mines Program team due to COVID-19, DMIRS continued to manage Western Australia's historic abandoned mine features through the delivery of the following projects and short-term initiatives.

Ashmore and Seppelt Diamond Mines

The Ashmore, Seppelt 1 and Seppelt 2 mine sites are located within the North Kimberley region, approximately 75km east of Kalumburu and 150km northwest of Wyndham. Exploration of the area commenced in the early 1990s and the Ashmore mining tenement was granted in 1999. Open pit mining ceased at Ashmore in 2001 with results of the evaluation indicating a commercial scale operation was not feasible at that time.

The Seppelt 1 and Seppelt 2 tenements were granted in 2003. All mining works ceased in 2004 for similar reasons.

The three tenements were forfeited in November 2019 and liquidators were appointed in April 2020. Project planning remains in the preliminary stages as site visits intended to be completed in the 4th quarter of the 2019–20 FY were postponed due to the COVID-19 pandemic. Whilst travel restrictions remain in the Kimberley region, desktop investigations continue, and it is hoped that easing of health based travel restrictions will allow the initial site visit to be completed in the 2020–21 FY.

Bulong Nickel Tailings Storage Facility Pilot Site

The former Bulong Nickel mining operation is located approximately 40km east of Kalgoorlie. Mining operations commenced on the former tenement in the 1990s with the construction of a tailings storage facility (TSF) and evaporation ponds. The operating company went into receivership and effectively abandoned the site in 2005. The rehabilitation associated with the mining operations became a state liability after the mining lease expired in 2013. Concerns were raised regarding issues associated with seepage and dust from the TSF potentially escaping into the surrounding environment.

During the 2019–20 FY, the contaminated site investigation process continued with the preparation of a sampling and analysis quality plan (SAQP) and the completion of a detailed site investigation (DSI). Due to the presence of registered Aboriginal heritage sites, consultation with the traditional owners and knowledge holders was undertaken prior to any ground disturbing works.

The results of the DSI determined that immediate remediation activities with regard to the TSF and evaporation ponds were not considered warranted, however, the need to undertake an ecological risk assessment (ERA) to determine if there were potential risks to ecological receptors was required. As such, an ERA assessment will be completed during the 2020–21 FY to close this knowledge gap and help inform if remediation or management measures are required.

Image 2: An example of the abandoned mine shafts located within the Boyanup State Forest

Donnybrook shaft remediation

In May 2018, the Department of Biodiversity, Conservation and Attractions (DBCA) reported the presence of old mine workings within the Argyle Forest Block to DMIRS. Following assessment of the site in accordance with the Abandoned Mines Program's (AMP) risk assessment and prioritisation process, the Donnybrook site was confirmed a priority for remediation due to operational and community safety risks.

The project site is located approximately 2km south of Donnybrook within a small section of the Boyanup State Forest. There are 36 features recorded on the abandoned mines inventory within the forest area. A further six that have been identified during site inspections and it is possible that additional features exist within the forest area that have not yet been recorded.

The focus of the first stage of the project is on 10 shafts, located within proximity to the primary access track. The AMP is currently investigating engineering options to remediate these 10 high risk features. Environmental consultants have been engaged to complete flora and Phytopthora dieback surveys of the project area, to ensure any potential impacts to the environment can be safely managed when remediation commences. It is anticipated that the ecological surveys and assessment of engineering options to make the shafts safe will be progressed during the 2020–21 FY.

Image 3: Infrastructure associated with the Ellendale Diamond Mine

Ellendale Diamond Mine

Ellendale Diamond Mine is located approximately 120km east of Derby in the West Kimberley region of Western Australia. It includes the E4 and E9 pits, waste rock landforms, TSF's and other associated infrastructure. Mining at the Ellendale site commenced in 2002 and continued to 2015. The mining tenements were held by Kimberley Diamond Company NL (KDC) who entered into administration in 2015 and creditors voted for the company to be placed into liquidation.

After the mine was abandoned in 2015, the Minister for Mines and Petroleum created an exemption area under Section 19 of the Mining Act. This allowed the Minister to invite a mining company or consortium to apply for a new mining lease which was undertaken through an Expression of Interest process. In December 2019, Mines and Petroleum Minister Bill Johnston announced that Gibb River Diamonds Limited accepted an offer to apply for new tenements at Ellendale, with India Bore Diamond Holdings Pty Ltd also accepting an offer to apply for new tenements.

During the 2019–20 FY, the AMP conducted a geotechnical assessment of the two largest TSF's, and undertook an inventory audit across the remaining infrastructure and equipment across the sites. The audit confirmed that the obsolete and redundant plant and equipment pose significant safety risks. Planning is underway to enable a program of works to facilitate making these areas safe.

DMIRS will continue to manage the site through the AMP and will work with stakeholders, including the companies invited to apply for new tenements, to minimise the safety, health and environmental risks at the site whilst ensuring the resource value of the tenements is not diminished. This will ensure that the site remains a viable option for future responsible resource development.

Image 4: Historic tailings stockpile associated with the Elverdton Pilot Site

Elverdton Pilot Site

The Elverdton mine site is located approximately 10km south-east of Ravensthorpe and can be defined as a cluster of abandoned mine features comprising tailings dumps, underground mine shafts, water dams and mine infrastructure. Gold and copper mining began in the area during 1899 with major periods of copper ore production between 1901–18 and 1957–71.

During the 2019–20 FY, a contaminated site investigation process commenced with the completion of a preliminary site investigation (PSI) and a sampling analysis quality plan (SAQP). The SAQP will guide further site investigations related to soil, air, groundwater and surface water through a detailed site investigation (DSI) process. It is intended that the DSI will be progressed during the 2020–21 FY.

Emerald Reward mine shaft – Yalgoo

The historic Emerald Reward mine shaft is located approximately 250m north of the Yalgoo Primary School in the town of Yalgoo. The shaft was assessed as a high risk due to the proximity of the shaft to the school, evidence of previous access to the shaft and, evidence of recreational use of the area surrounding the shaft.

In October 2019, the area surrounding the shaft was declared an abandoned mine site in accordance with Section 9(1) of the *MRF Act 2012*. This declaration allowed access to MRF funds and fencing was installed around the shaft later that month to prevent uncontrolled access and minimise the associated risk.

Image 5 - Abandoned mine feature at Wheal Ellen

Wheal Ellen shaft remediation

The historic Wheal Ellen mine site is located approximately 2.4km south east of Northampton and 46km north of Geraldton. It contains a tailings stockpile, a temporary TSF and has been selected as the site for a containment cell to receive lead contaminated tailings that originate from the former state battery located in Northampton. The permanent containment cell will expand the temporary facility and require the rehandling of the tailings stockpile, which will require significant works and machinery. Multiple abandoned mine features are located within the proposed work area for the containment cell, posing a potential safety risk to workers.

The AMP is working in conjunction with the Department of Planning, Lands and Heritage (DPLH) at the site to comprehensively characterise the abandoned mines features. A geotechnical consultant has been engaged to assess ground stability around the high risk features and identify potential remedial options to ensure the containment cell works can progress in a safe manner during the 2020–21 FY.

Government of Western Australia

Department of Mines, Industry Regulation and Safety

8.30am – 4.30pm

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OCT20_6740