



**Newcastle Coal**  
INFRASTRUCTURE GROUP

# Environmental Management

Nathan Juchau

Manager Sustainability

---



This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

# Our Operation

- NCIG operations commenced in 2010
- 79 Mtpa Coal Export Terminal
- Facility lease until 2043 + extension options
- Modern, highly automated plant
- High productivity workforce
- Annual capacity entitlement and dedicated stockyard area distributed amongst customers



# Our Facilities



2 X Dump Stations

Inbound Sample Station

Ship load - 10,500 tph

3 X Berths (K8, K9, K10)

Outbound Sample Station

4 X Stacker / Reclaimers

Reclaim - 10,500 tph

2 X Shiploaders

Stacking - 10,000 tph

2 X Buffer Bins - 2,000 t

# Environmental Governance

## State

### Project Approval

- issued under EP&A Act, administered by NSW DPHI


### Environment Protection Licence

- issued under POEO Act, administered by NSW EPA

## Commonwealth

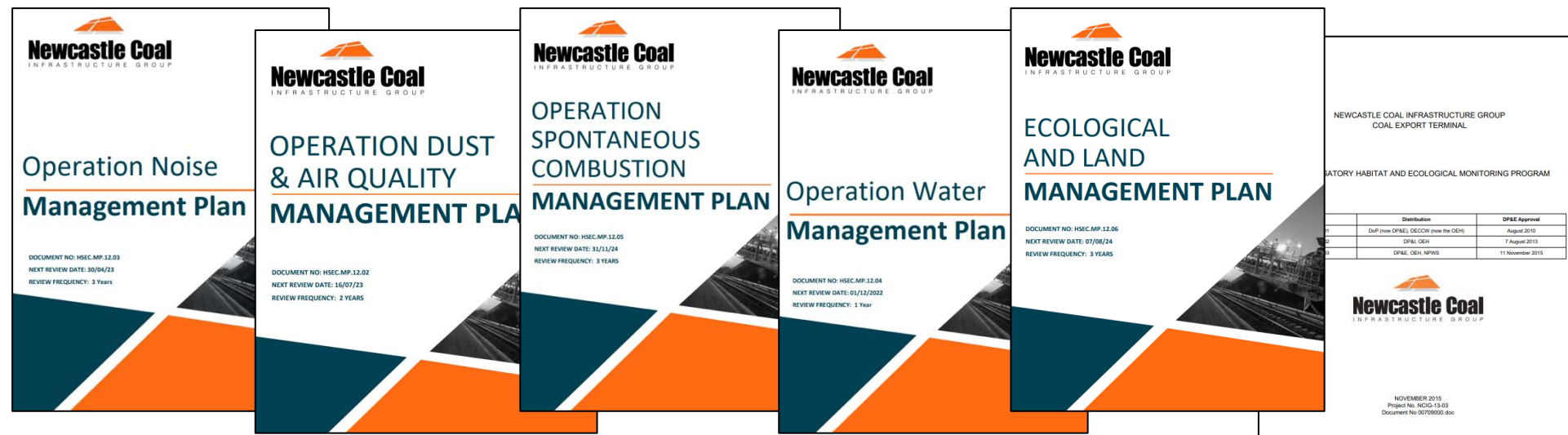
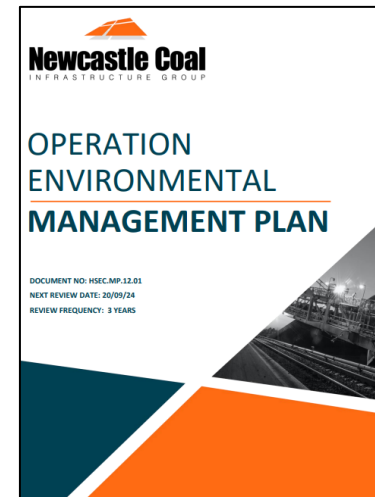
### Particular Manner Decision

- Issued under EPBC Act, administered by DCCEEW

<b>Project Approval</b> Section 75J of the <i>Environmental Planning and Assessment Act 1979</i>																																																					
I, the Minister for Planning, approve the project referred to in Schedule 1, subject to the conditions in Schedule 2. <small>Section 55 Protection of the Environment Operations Act 1997</small>																																																					
These conditions are required to: <ul style="list-style-type: none"> <li>prevent, minimise, and</li> <li>set standards and performance</li> <li>require regular monitoring</li> <li>provide for the ongoing</li> </ul>	<b>Environment Protection Licence</b> Licence - 12693 																																																				
Frank Sartor MP Minister for Planning  Sydney S06/00617	<table border="1"> <tr> <th colspan="2">Licence Details</th> </tr> <tr> <td>Number:</td> <td>12693</td> </tr> <tr> <td>Anniversary Date:</td> <td>26-October</td> </tr> <tr> <th colspan="2">Licensee</th> </tr> <tr> <td colspan="2">NEWCASTLE COAL INFRASTRUCTURE GROUP PTY LTD</td> </tr> <tr> <td colspan="2">LOCKED BAG 6003</td> </tr> <tr> <td colspan="2">HUNTER REGION MAIL CENTRE NSW 2304</td> </tr> <tr> <th colspan="2">Premises</th> </tr> <tr> <td colspan="2">NCIG COAL EXPORT TERMINAL</td> </tr> <tr> <td colspan="2">CORMORANT ROAD</td> </tr> <tr> <td colspan="2">KOORAGANG NSW 2304</td> </tr> <tr> <th colspan="2">Scheduled Activity</th> </tr> <tr> <td colspan="2">Coal works</td> </tr> <tr> <td colspan="2">Shipping in bulk</td> </tr> <tr> <th colspan="2">Fee Based Activity</th> </tr> <tr> <td colspan="2">Coal works</td> </tr> <tr> <td colspan="2">Shipping in bulk</td> </tr> <tr> <th colspan="2">Contact Us</th> </tr> <tr> <td colspan="2">NSW EPA</td> </tr> <tr> <td colspan="2">4 Parramatta Square</td> </tr> <tr> <td colspan="2">12 Darcy Street</td> </tr> <tr> <td colspan="2">PARRAMATTA NSW 2150</td> </tr> <tr> <td colspan="2">Phone: 131 555</td> </tr> <tr> <td colspan="2">Email: <a href="mailto:info@epa.nsw.gov.au">info@epa.nsw.gov.au</a></td> </tr> <tr> <td colspan="2">Locked Bag 5022</td> </tr> <tr> <td colspan="2">PARRAMATTA NSW 2124</td> </tr> </table>	Licence Details		Number:	12693	Anniversary Date:	26-October	Licensee		NEWCASTLE COAL INFRASTRUCTURE GROUP PTY LTD		LOCKED BAG 6003		HUNTER REGION MAIL CENTRE NSW 2304		Premises		NCIG COAL EXPORT TERMINAL		CORMORANT ROAD		KOORAGANG NSW 2304		Scheduled Activity		Coal works		Shipping in bulk		Fee Based Activity		Coal works		Shipping in bulk		Contact Us		NSW EPA		4 Parramatta Square		12 Darcy Street		PARRAMATTA NSW 2150		Phone: 131 555		Email: <a href="mailto:info@epa.nsw.gov.au">info@epa.nsw.gov.au</a>		Locked Bag 5022		PARRAMATTA NSW 2124	
Licence Details																																																					
Number:	12693																																																				
Anniversary Date:	26-October																																																				
Licensee																																																					
NEWCASTLE COAL INFRASTRUCTURE GROUP PTY LTD																																																					
LOCKED BAG 6003																																																					
HUNTER REGION MAIL CENTRE NSW 2304																																																					
Premises																																																					
NCIG COAL EXPORT TERMINAL																																																					
CORMORANT ROAD																																																					
KOORAGANG NSW 2304																																																					
Scheduled Activity																																																					
Coal works																																																					
Shipping in bulk																																																					
Fee Based Activity																																																					
Coal works																																																					
Shipping in bulk																																																					
Contact Us																																																					
NSW EPA																																																					
4 Parramatta Square																																																					
12 Darcy Street																																																					
PARRAMATTA NSW 2150																																																					
Phone: 131 555																																																					
Email: <a href="mailto:info@epa.nsw.gov.au">info@epa.nsw.gov.au</a>																																																					
Locked Bag 5022																																																					
PARRAMATTA NSW 2124																																																					
Application No: Proponent: Approval Authority:	<div style="text-align: center;"> <p>COMMONWEALTH OF AUSTRALIA</p> <p><i>ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999</i></p> <p><b>DECISION THAT ACTION IS NOT A CONTROLLED ACTION PROVIDED IT IS UNDERTAKEN IN A PARTICULAR MANNER</b></p> </div> <p>I, ALEX RANKIN, Assistant Secretary, Environment Assessment Branch, Department of the Environment and Heritage, a delegate of the Minister for the Environment and Heritage for the purposes of section 75 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i>, decide that the proposed action, set out in the Schedule, is not a controlled action. Provided that the proposed action is taken in the manner described in the Schedule, the provisions of Part 3 of the EPBC Act set out in the Schedule are not controlling provisions.</p> <p style="text-align: center;"><b>SCHEDULE</b></p> <p>The proposed action to develop a Coal Export Terminal, including associated rail and coal handling infrastructure and wharf/shiploading facilities on the south arm of the Hunter River, Kooragang Island, Newcastle, NSW, and as described in the referral received under the Act on 9 August 2006 and additional information received 11 September and 3 October 2006 (EPBC 2006/2987).</p> <p><b>Provisions of Part 3</b> The relevant provisions of Part 3 are:</p> <ul style="list-style-type: none"> <li>Sections 16 and 17B (Ramsar wetlands);</li> <li>Sections 18 and 18A (Listed threatened species); and</li> <li>Sections 20 and 20A (Migratory species).</li> </ul> <p><b>Manner in which the proposed action is to be taken:</b> The following measures must be taken to ensure that significant impacts are avoided on populations of the listed vulnerable Green and Golden Bell Frog (<i>Litoria aurea</i>), listed migratory shorebirds that utilise Deep Pond, and the ecological character of the Hunter Estuary Wetlands Ramsar site.</p>																																																				

# Environmental Governance

- ▶ Operational risk management
  - ❖ Operation Environmental Management Plan (OEMP) has been developed to document the way in which NCIG manages activities that have the potential to impact the environment



# Risk Management

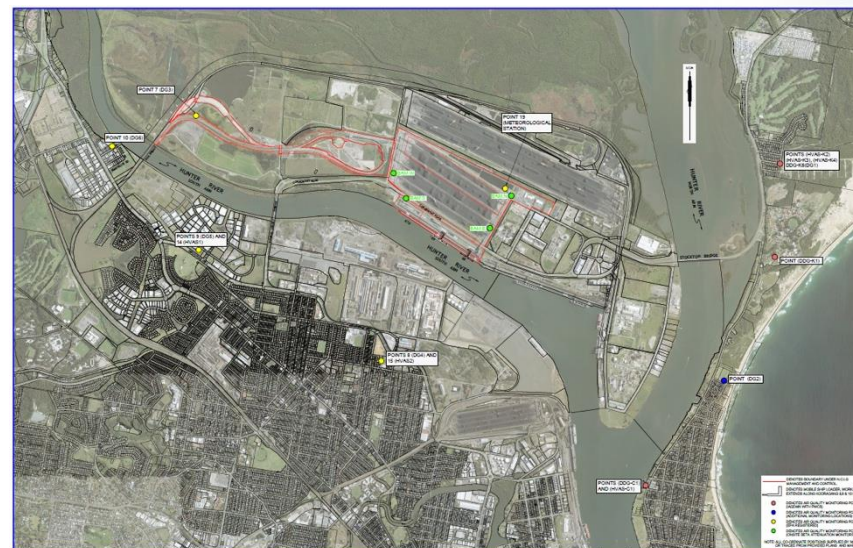
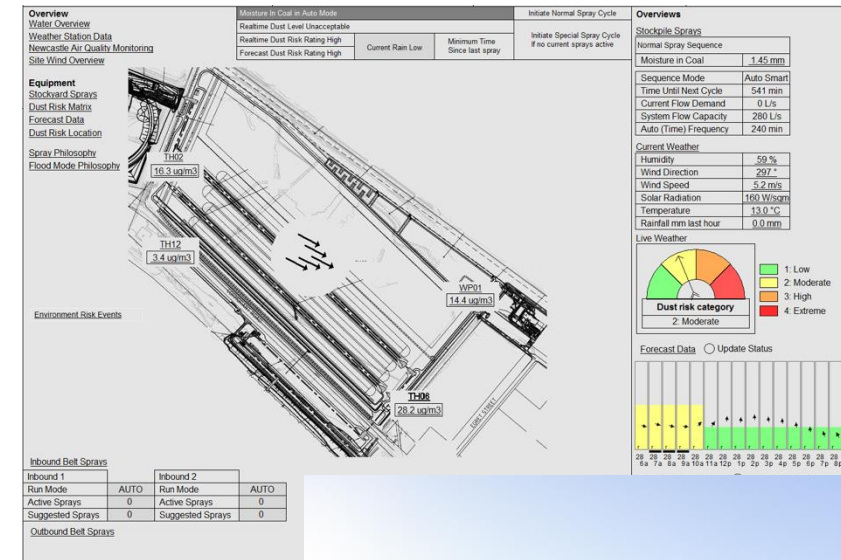
---

- ▶ Key areas of environmental management include:
  - ❖ Dust and air quality
  - ❖ Water management
  - ❖ Spontaneous combustion
  - ❖ Resource Management
  - ❖ Waste
  - ❖ Noise
  - ❖ Ecology
  - ❖ Land management
  - ❖ Compensatory Habitats



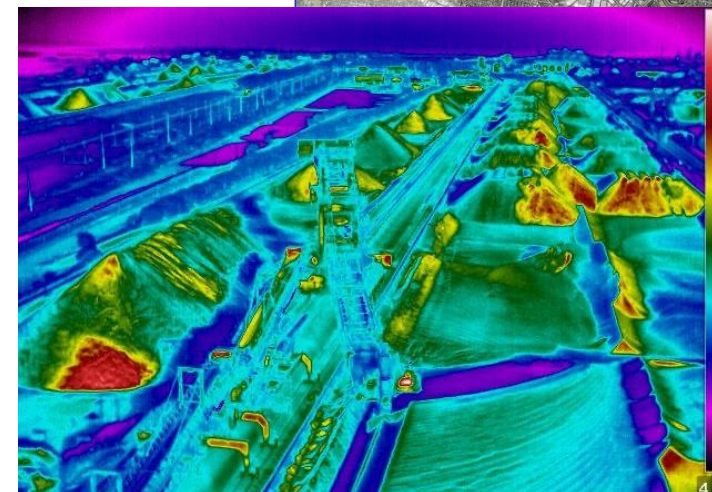
# Dust Management

- ▶ Integrate system with multiple aspects to manage dynamic nature of the risk.
  - ❖ Inherent design feature.
  - ❖ Operational planning and delivery.
  - ❖ In-line moisture measurement.
  - ❖ Automated dust suppression based on calculated stockpile moisture
    - ✓ Reactive: Real-time weather data
    - ✓ Proactive: Weather forecasting
  - ❖ Monitoring and alerting networks.



# Environmental Management

- ▶ Surface Water: stormwater infrastructure, routine and event monitoring, weather forecasting, extreme rainfall preparation.
- ▶ Noise: equipment integrity, community monitoring.
- ▶ Groundwater: routine monitoring.
- ▶ Spontaneous combustion: temperature monitoring, residency management.
- ▶ Resources: recycled water, water efficiency, electricity efficiency.
- ▶ Waste: minimisation and segregation.
- ▶ Ecology: critical habitat management



# Sustainability



## People & Culture

We cultivate a safe, healthy, inclusive and innovative working environment for our people.

- FOCUS ISSUES**
- Safety
  - Health & Wellbeing
  - Diversity & Inclusion
  - Training & Development



## Plant & Environment

We ensure the resilience of our operations while minimising our impacts on the environment.






- FOCUS ISSUES**
- Energy & Emissions
  - Water
  - Waste
  - Biodiversity



## Community & Stakeholder

We collaborate with communities, Industry partners and government to achieve positive economic & social outcomes.

- FOCUS ISSUES**
- Procurement
  - Employment
  - Engagement
  - Support

	FOCUS ISSUES	COMMITMENTS	GOALS	2024 TARGETS	ALIGNMENT TO SDG'S
<b>People &amp; Culture</b>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Health &amp; Wellbeing</li> <li>• Diversity &amp; Inclusion</li> <li>• Training &amp; Development</li> </ul> <p>We cultivate a safe, healthy, inclusive and innovative working environment for our people.</p>	<ul style="list-style-type: none"> <li>• Put our people's safety, physical and mental health first</li> <li>• Integrate agility, diversity, and inclusion in all areas of our business</li> <li>• Provide training and development opportunities that ensure our people remained engaged and are ready for their next career challenge</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain safe work environment and industry best practice standards</li> <li>• Maintain a workplace that protects and promotes good mental health and wellbeing – focus on leaders</li> <li>• Increase the diversity of employee group</li> <li>• Increase knowledge and skill capacity to stimulate innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Total recordable injury frequency rate of less than 5.0</li> <li>• ISO 45001 accreditation</li> <li>• 80% of employees receive mental health training</li> <li>• 90% of recruitment activities with shortlist involving female candidates</li> <li>• 40% of employees receive training and development to increase skill base above role requirements per year</li> </ul>	 
<b>Plant &amp; Environment</b>	<ul style="list-style-type: none"> <li>• Energy &amp; Emissions</li> <li>• Water</li> <li>• Waste</li> <li>• Biodiversity</li> </ul> <p>We ensure the resilience of our operations while minimising our impacts on the environment.</p>	<ul style="list-style-type: none"> <li>• Proactively manage our risks through robust systems, processes and scenario planning</li> <li>• Achieve Net Zero by 2030</li> <li>• Optimise our air, water and waste management</li> <li>• Nurture positive outcomes for local biodiversity through our projects and partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce our total scope 1 and 2 emissions in accordance with our Net Zero pathway</li> <li>• Minimise reliance on potable water network in particular during times of high water stress (drought)</li> <li>• Achieve minimum possible waste footprint by proactively managing reduction, reuse and recycling where possible</li> <li>• Increase habitat value of existing biodiversity lands through active management and partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• 30% reduction in operational emissions (includes Scope 1 and 2)</li> <li>• 50% reduction in potable water use per year</li> <li>• 70% waste recycled (of total waste) per year</li> <li>• 102 Ha managed annually for biodiversity conservation</li> <li>• \$250,000 committed to biodiversity conservation per year</li> </ul>	 
<b>Community &amp; Stakeholder</b>	<ul style="list-style-type: none"> <li>• Procurement</li> <li>• Employment</li> <li>• Engagement</li> <li>• Support</li> </ul> <p>We collaborate with communities, industry partners and government to achieve positive economic &amp; social outcomes.</p>	<ul style="list-style-type: none"> <li>• Contribute to local economic prosperity through local employment and procurement</li> <li>• Invest in the STEM talent pipeline of today and tomorrow and contribute to building local technical capability</li> <li>• Commit our capabilities and resources to support our community education, health and environmental sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Support local economy and prosperity</li> <li>• Establish and maintain strong relationships with local community and other stakeholders that lead to positive business outcomes</li> <li>• Maintain positive interactions with local community groups to maintain social licence to operate</li> </ul>	<ul style="list-style-type: none"> <li>• 70% of total procurement \$ spent locally per year</li> <li>• 5 STEM related initiatives supported</li> <li>• 25 community events actively participated in by employees</li> <li>• 30 community groups supported annually</li> <li>• \$360,000 per year spent on community initiatives per year</li> </ul>	 

# Providing transparency

- Website
- Management approach suite
- Policy suite
- Half-yearly and annual scorecard
- Sustainability Reports
- ESG data tables
- Compliance reporting

## SUSTAINABILITY SCORECARD SAFETY

Our people are at the heart of our business and the prevention and active management of any injuries to our workers is our number one priority. Our culture encourages safe behaviours and fosters an environment where workers feel safe to speak freely about and prevent.

NGC is an industrial site and as such, many of our people work extensive collaboration and coordination. We take great pride in the safety of all employees, contractors, visitors, and the NGC has a responsibility to uphold our organization's high commitment to safety can only be achieved with personal commitment. Integrated HSEC Management System is certified to ISO45001.

**COMMITMENT** Put our people's safety, physical and mental health first.

**GOAL** Maintain a workplace that protects wellbeing – focus on leaders

**FY22 TARGET** Total Recordable Injury Frequency

**SDG CONTRIBUTION**

**PROGRESS AGAINST FY22 INTERIM TARGET**

Total Recordable Injury Frequency Rate (TRFR)<sup>1</sup> of less than 1.98% is defined as the total number of recordable injuries requiring medical treatment and operations based contractors in PL35E.

**Achievement status** ■ On track ■ Behind ■ Off track

### OTHER PERFORMANCE DATA

	FY21
Total Recordable Injury Frequency Rate (TRFR)	0
Fatalities	0
Lost Time Injuries	0
Occupational Health Illness*	1
Medical Treatment Injuries	0
Lost Time Injury Frequency Rate (LTFR)	0
Hours worked (Employees + Contractors)	466,916

\* Prior to FY21 Occupational Health Illness was monitored and reported as

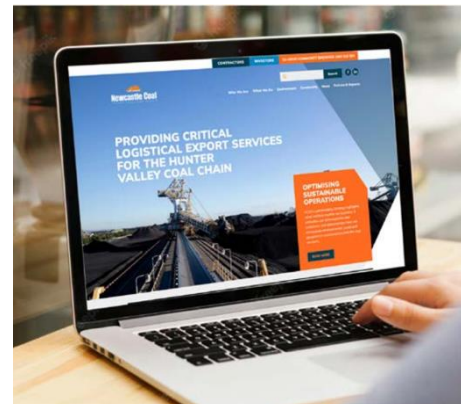
Find out more about NGC's [Safety Management Approach](#)

© NGC 2022



## 2022 SUSTAINABILITY REPORT

	FY22	FY21	FY20	FY19	FY18
<b>SAFETY</b>					
Fatalities	0	0	0	0	0
Lost Time Injuries	0	0	1	0	1
Medical Treatment Injuries**	3	-	-	-	-
First Aid Injuries	8	50	16	10	2
Occupational Illness	0	2*	0	0	0
Lost Time Injury Frequency Rate (LTFR)	0.01	0	2.55	0	2.53
Total Recordable Injury Frequency Rate (TRFR)	0.01	0	2.55	7.52	7.58
Hours worked (Employees + Contractors)	374,370	466,916	391,456	391,178	391,959
<small>* Prior to FY22, Occupational Health Illness was monitored and reported as Occupational Health Illness requiring medical treatment. ** Occupational Health Illness requiring medical treatment.</small>					
<b>HEALTH AND WELLBEING</b>					
Unplanned absenteeism (% of total hours)	4.2%	2.7%	3.4%	3.2%	2.8%
Employees receive mental health training (%)	84%	-	-	-	-
<b>DIVERSITY AND INCLUSION</b>					
Number of female employees	20	23	19	21	18
% Women in total workforce	19%	21%	18%	19%	17%
% Recruitment activities with shortlist involving female candidates*	88%	-	-	-	-
<b>TRAINING AND DEVELOPMENT</b>					
Total average hours of training per employee	34	55	47	30	-
% Employees receive training and development above role requirements*	58%	-	-	-	-
<b>Our Community and Stakeholders</b>					
	FY22	FY21	FY20	FY19	FY18
Total community investment (\$)	302,000	292,000	275,000	260,000	240,000
Number of community groups supported	47	45	30	39	54
Number of STEM related initiatives supported*	4	-	-	-	-
Number of employees engaged in community events*	32	-	-	-	-
<b>ENGAGEMENT</b>					
Number of registered complaints	0	0	2	0	1
<b>FINANCIALS</b>					
Total local spend (\$ million)	34.5	40.5	41.3	40.3	47.9
Proportion of total expenditure spent locally (%)**	76%	-	-	-	-



## MANAGEMENT APPROACH POLICIES

**COMMITMENT** We put our people's safety, physical and mental health first.

Our people are at the heart of our business and the prevention and active management of any injuries to our workers is our number one priority. Our culture encourages safe behaviours and fosters an environment where workers feel safe to speak freely about and prevent.

NGC is an industrial site and the prevention and active management of any injuries to our workers is our number one priority. Our culture encourages safe behaviours and fosters an environment where workers feel safe to speak freely about and prevent.

- SYSTEMS AND PROGRAMS**
- Accreditations and standards**
- Our integrated HSEC Management System is certified to ISO45001
  - Leadership and accountability
  - Legal requirements and duties
  - Risk and change management
  - Planning, goals, and targets
  - Awareness, competence, and capability
  - Health & hygiene
  - Communication, consultation and engagement
  - Business conduct, human rights

NGC's waste management strategy is to manage waste responsibly and efficiently. It applies the principles of Avoid - go without, or use a friendlier alternative; Reduce - reduce the use of materials; Reuse - reuse or repurpose materials; Recycle - recycle waste appropriately.

There are several legislative and regulatory requirements that apply to the management of waste at our facility. These are primarily broken down into state government departments, such as the Environmental Planning and Assessment Act 1979, the Environmental Operations Amendment (Waste) Regulation 2014, and the Waste Act 2000.

**SYSTEMS AND PROGRAMS**

**Waste Management Plan**

NGC's Waste Management Plan (WMP) outlines the way in which we manage waste generated at our facility. It also outlines the procedures that manage these risks, and includes, its effectiveness.



## MANAGEMENT APPROACH Community Support

**COMMITMENT** We commit our capabilities and resources to support our community's education, health and environmental sustainability.

**GOAL** To establish and maintain strong relationships with local community and other stakeholders that lead to positive business outcomes.

**FY24 TARGETS**

- To support 5 STEM related initiatives
- For 25 NGC employees to actively participate in community events
- To support 10 community groups
- To spend \$300,000 on community initiatives.

We believe we have a responsibility to support our local community and contribute to the creation of long-term social, environmental, and economic value. Actively participating locally enables us to connect with and develop deeper relationships with our neighbours, as well as contribute to the broader prosperity of our region and boost employee morale. Our community investment strategy comprises two core programs: our Community Support Program (CSP), and our Community Partnership Program (CPP). Both programs promote physical and mental health, improve access to quality education, and improve local amenities and the environment.

We believe it is important that we actively contribute to our local community to help create long-term social, environmental, and economic value. Through our community support programs, which includes grants and partnerships, we support and create long-lasting relationships with local organisations and community groups that reflect and share our values. We provide financial and in-kind support aiming to create outcomes that benefit and improve the lives and wellbeing of people living in Newcastle and the Hunter Region. By supporting our local communities, we hope to promote physical and mental health, increase and improve access to education, and improve local amenities and the environment.

Organisations and community groups eligible to apply for our community impact grants and/or partnerships biannually include those whose program or project focuses on education, health and the environment. They must also be able to demonstrate:

- their capacity to use funds effectively for the benefit of communities in the Hunter Region, particularly those close to our facilities at Kooragang
- that the benefits generated are not for one specific interest group or individual but the broader community
- tangible and quantitative outcomes as well as social well-being benefits.



## PERFORMANCE AGAINST FY22 TARGETS

FOCUS AREA	METRIC	FY22 TARGET	FY22 ACTUAL	FY22 PERFORMANCE
Community support	Number of employees participating in community events per year	25	32	
Community support	Number of STEM related initiatives supported per year	3	4	
Community support	Number of community groups supported per year	30	47	
Community support	Spend on community initiatives per year	\$290,000	\$303,000	
Procurement	% of total expenditure spent locally per year	70%	76%	



Thank You

