

Sustainability Financing Framework

2023 Annual Report



(YOU) us

Sustainability Financing Framework – Annual Report

Purpose

Macquarie University is pleased to present its fifth Annual Report under the University's Sustainability Financing Framework (the **Framework**), covering the year ended 31 August 2023. The report provides detailed information on the use of proceeds from Sustainability Bonds across a range of projects that meet the eligibility criteria established within the Framework.

The Annual Report comprises:

Part I: Overview of Sustainability Financing Framework

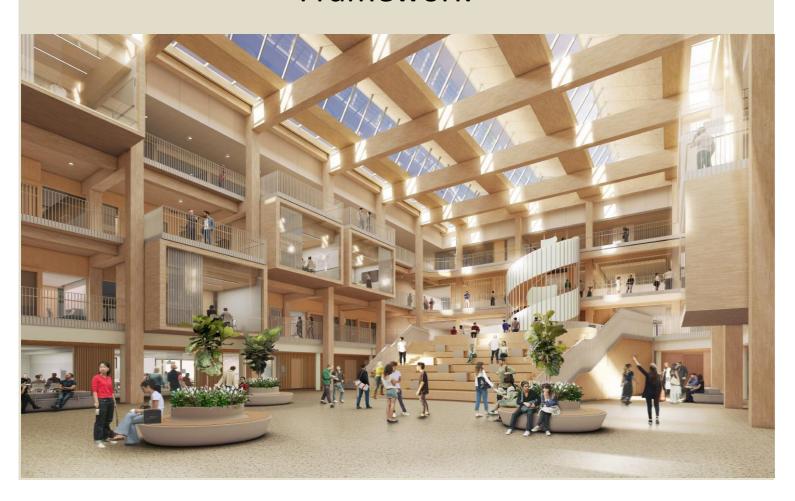
Part II: Sustainalytics report

Part III: Allocation of funds and use of proceeds

Part IV: Impact reporting



Part I
Overview of Sustainability Financing
Framework



Part I: Overview of Sustainability Financing Framework

Introduction

Macquarie University was the first Australian university to access debt capital markets, raising A\$250M in Australian medium-term notes in a 10-year transaction in September 2010.

During 2018 Macquarie University developed its *Sustainability Financing Framework*, anchored in the Sustainable Development Goals established by the United Nations. The move towards sustainability financing has been part of the University's overall commitment to embed environmental and social considerations in processes and practices across our core activity areas.

The Sustainability Financing Framework was developed to govern how Macquarie University will enter into future Sustainability Financing Transactions, with proceeds earmarked to finance projects that deliver positive environmental and social outcomes. Through the Framework, the University aims to fund eligible social and green projects in line with the ICMA Sustainability Bond Guidelines and APLMA Green Loan Principles.

In September 2018 the University issued its first A\$250M in medium term notes under the new Sustainability Financing Framework. This dual-tranche (10 year and 25 year) transaction involved 26 investors, 18 domestic and 8 international, expanding the University's already diverse investor base.

Macquarie University's 2018 A\$250M dual tranche transaction was named *Sustainability Bond of the Year* by Environmental Finance.

In November 2019 the University returned to the debt capital markets to issue a further A\$250M in medium term notes, again in a dual tranche (10.5 year and 25 year) transaction issued under the Sustainability Financing Framework. This issuance attracted 9 new investors, further diversifying the investors base.

Macquarie University launched in July 2023 a refinancing of \$450M of bank facilities through a 5-year Sustainability Linked Loans (SLL) Framework, further extending Macquarie University ambitions in sustainability financing. This facility is the largest in the higher education sector in Australia. It is linked to six key performance indicators and uniquely Macquarie has committed all savings made over the life of the facilities will be directed to disadvantaged students through scholarships. Further information is available on this link announcing the launch of the <u>Sustainability Linked Loan</u>.

Macquarie University Sustainability Financing Framework 2023 Annual Report

Details of the sustainability bonds issued under the Sustainability Financing Framework are outlined in Table 1 below. 100% of the allocations have now been authorized in accordance with the Sustainability Financing Framework.

Table 1: Sustainability Bonds on Issue – 31 August, 2023

Transaction	Identifier/ISIN	Coupon	Term	Maturity	Principal Amount (A\$ m)	Allocation (A\$ m)	Spent up to 31 st Aug 2023(A\$ m)	Further to Spend (A\$ m)
2018 MTN	AU3CB0256279	3.50%	10yr	Sep 2028	200.0	200.0	200.0	-
2018 MTN	AU3CB0256295	4.50%	25yr	Sep 2043	50.0	50.0	50.0	,
2019 MTN	AU3CB0268399	2.25%	10.5yr	May 2030	160.0	160.0	46.7	113.3
2019 MTN	AU3CB0268472	3.10%	25yr	Nov 2044	90.0	90.0	73.2	16.8
	Total				500.0	500.0	369.9	130.1

Use of Proceeds

Proceeds from bonds issued under the Sustainability Financing Framework are allocated to eligible projects under the direction of the University's Finance and Facilities Committee (a committee of Council). As at 31 August 2023 the full \$500M has been allocated to projects under the Framework (see Table 2).

Full details of funds allocated to projects can be found in Part III and are summarised in Table 2.

Table 2: Allocation of Proceeds – 31 August, 2023

(A\$m)

		Allocation of Projects						
Identifier/ISIN	Principal	MUCCP Stages 2, 4, 5 & 7 ¹	Endoscopy Clinic at MQH	MQH Clinic at Trafalgar Place	Law Building	Engineering & Astronomy	MUCCP Stage 6a.2 - 18 Wally's Walk	Total Allocation
AU3CB0256279	200.0	200.0	-	-	-	-	-	200.0
AU3CB0256295	50.0	50.0	-	-	-	-	-	50.0
AU3CB0268399	160.0	-	12.0	1.0	3.0	117.0	27.0	160.0
AU3CB0268472	90.0	10.0	-	-	70.0	10.0	-	90.0
Total	500.0	260.0	12.0	1.0	73.0	127.0	27.0	500.0

¹ Includes 1 Central Courtyard, Residential Student Accommodation R1 & R2, Lincoln Building Refurbishment and Mars Creek Rehabilitation Works.

A. Green Buildings



\$252M of the sustainability bonds have been allocated to the Macquarie University Central Courtyard Precinct ("MUCCP") – Stages 2 & 5a (1 Central Courtyard), 4 (Lincoln Building), 5b (Residential Student Accommodation R1 & R2) for the construction of Green Buildings, to be assessed by the Green Building Council of Australia ² (GBCA).

Stages 2 and 5a (1 Central Courtyard), Stage 5b (Residential Student Accommodation R1 & R2) and Stage 4 (Lincoln Building) have all been awarded a 5 Star Green Star Rating (Design and As Built) by the Green Building Council of Australia.

\$73M of the sustainability bonds have been allocated to the Michael Kirby Law Building ("Law Building") and \$127M allocated to the new School of Engineering and Australian Astronomical Optics Building ("Engineering and Astronomy Building") for the construction of Green Buildings, to be assessed by the Green Building Council of Australia ³ (GBCA).

\$27M of the sustainability bonds have also been allocated to the interior fitout and refurbishment of 18 Wally's Walk, across multiple levels of Macquarie University's original library building. This has been completed and is to be assessed by the Green Building Council of Australia ⁴ (GBCA).

MUCCP Stages 2 & 5a (1 Central Courtyard):

New Development consisting of formal and informal learning and teaching spaces, graduation hall and food and beverage retail spaces, totaling approximately 15,400m².

Eligibility Criteria: Green Building ✓ Granted



MUCCP Stage 4 (Lincoln Building): Major Refurbishment of 3 levels of workplace accommodation and provision of 6 new retail spaces, totaling approximately 2,570m².

Eligibility Criteria: Green Buildings ✓ Granted



² Green Building Council of Australia, Design & As Built v1.2.

³ Green Building Council of Australia, Design & As Built v1.3.

⁴ Green Building Council of Australia, Interiors v1.3.

MUCCP Stage 5b (Residential Student

Accommodation R1 & R2): New Development consisting of Residential Student Accommodation spread across two buildings (with common podium) and a 342-bed capacity, totaling approximately 11,950m².

Eligibility Criteria: Green Buildings ✓ Granted

Michael Kirby Law Building: Major re-build of four levels including shared lecture theatres & tutorial rooms, academic and HDR workplaces, Moot Court, Law Commons and law student breakout spaces totalling 9,887m².

Eligibility Criteria: Green Buildings ▲ Under construction



Engineering and Astronomy Building: A

combination of new build and refurbishment of existing building for the School of Engineering and Australian Astronomical Optics including formal and informal learning and teaching laboratories and related spaces, academic and HDR workplaces, workshops and industry workplaces totalling 14,400m²

Eligibility Criteria: Green Buildings ▲ Under construction



MUCCP Stage 6a.2 - 18 Wally's Walk: Internal fit out of the original library to convert it to professional work spaces housing up to 600 people including meeting rooms, social spaces and breakout zones.

Eligibility Criteria: Green Buildings ▲ Awaiting Certification



B. Sustainable water and wastewater management



\$8M of the sustainability bonds have been allocated to the Macquarie University Central Courtyard Precinct ("MUCCP") — Stage 7 (Mars Creek Rehabilitation Works), to improve the restoration of natural landscapes and wetlands, such as the Mars Creek.

This project has reduced the impact of storm flows for the MQ community and improved flood mitigation both on campus and to the downstream flows of Lane Cove River.

It also brought about significant enhancements of native plants along the project's creek edge.

Eligibility Criteria: Environmentally Sustainable Management of Living Natural Resources & Land Use



C. Access to Essential Services



\$13M of the sustainability bonds have been allocated across the fitout and refurbishment of the Endoscopy Clinic (\$12M) and MQ Health Clinic (\$1M) at Trafalgar Place to facilitate:

Endoscopy Clinic at Macquarie University Hospital: Fitout and refurbishment within the Macquarie University Hospital to expand the capacity and capability of Endoscopy Services to the community.

Over 5000 diagnostic and therapeutic specialist procedures annually (incremental uplift of c. 50%).

Eligibility Criteria: Social – Access to Essential Services

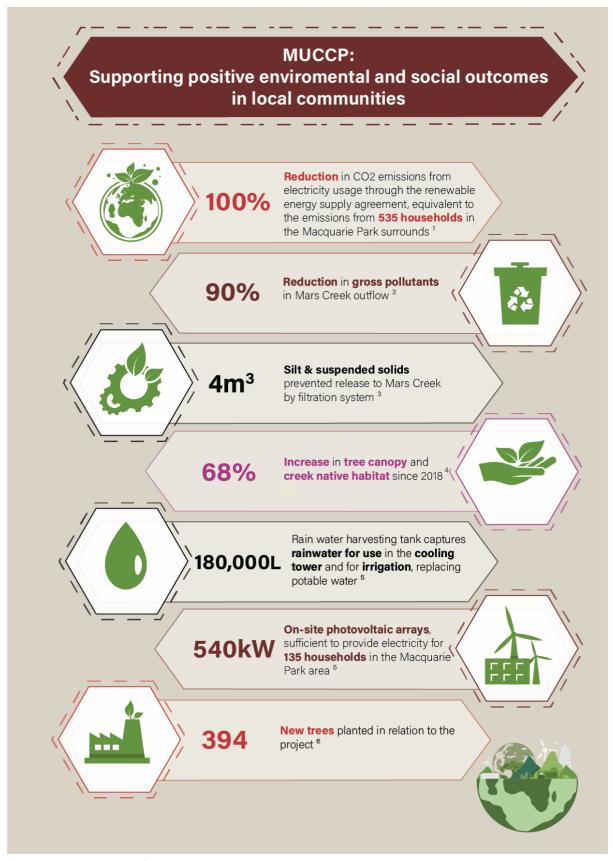


MQ Health Clinic at Trafalgar Place: Fitout and refurbishment of tenancy to accommodate MQ Health Clinic to expand the capacity and outreach of General Practitioner health services to the community.

Up to 20,000 patient visitations annually.

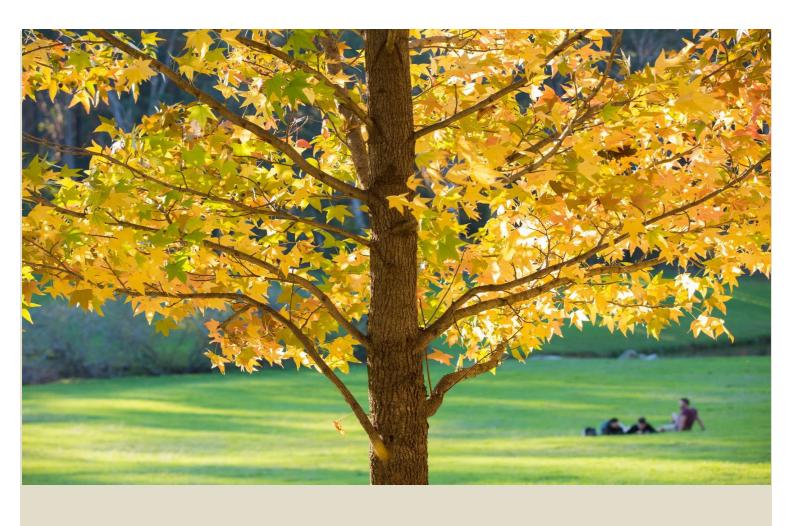
Eligibility Criteria: Social – Access to Essential Service



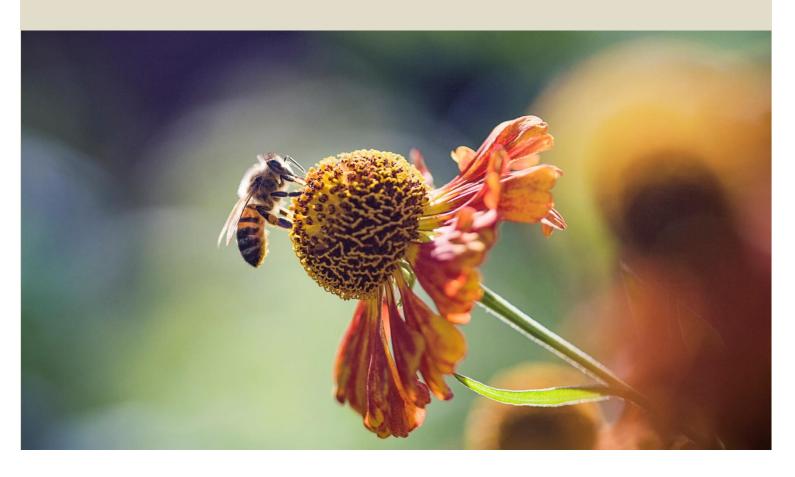


Above statistics sourced from:

- 1. 100% renewable electricity provided by Red Energy;
- 2. Reduction in pollutants based on system design performance standards;
- 3. Silt was calculated based on first clean out report and size of retention chamber;
- 4. Tree canopy is a direct comparison for air photo series between late 2018 and early to mid-2023;
- 5. Specifications on installed equipment;
- 6. Number of trees provided by project planting list.



Part II
Sustainalytics Report



Part II: Sustainalytics Report 2023

MORNINGSTAR SUSTAINALYTICS

Macquarie University

Type of Engagement: Annual Review

Date: October 17, 2023

Engagement Team:

Amrita Kaur, <u>amrita.kaur@morninsgtar.com</u> Ankita Mani, ankita.mani@morningstar.com

Introduction

In 2018 and 2019, Macquarie University (MQU) issued four sustainability bonds (the "Sustainability Bonds") aimed at financing green projects such as the construction and refurbishment of green buildings and rehabilitation of the creek on MQU's campus, as well as social projects such as the capacity expansion of endoscopy clinic and health clinic at MQU to improve access to health care services. In September 2023, MQU engaged Sustainalytics to review the projects funded with proceeds from the Sustainability Bonds between September 2018 and August 2023 and provide an assessment as to whether the projects met the use of proceeds criteria and the reporting commitments outlined in the Macquarie University Sustainability Financing Framework (the "Framework"). Sustainalytics provided a Second-Party Opinion on the Framework in August 2018. This is Sustainalytics' fourth annual review of allocation and reporting of the instruments issued under the Framework, following a previous review in October 2022. 2

Evaluation Criteria

Sustainalytics evaluated the projects and assets funded with proceeds from the Sustainability Bonds between September 2018 and August 2023, based on whether the projects and programmes:

- 1. Met the use of proceeds and eligibility criteria defined in the Macquarie University Sustainability Financing Framework; and
- 2. Reported on at least one key performance indicator (KPI) for each use of proceeds category defined in the Macquarie University Sustainability Financing Framework

Table 1: Use of Proceeds Categories, Eligibility Criteria and Associated KPIs

Use of Proceeds Category	Eligibility Criteria	Key Performance Indicators
Green Buildings	 New construction or renovation of existing buildings that follow strong Ecologically Sustainable Design (ESD) Principles.³ New construction or renovation of existing buildings that have or will receive any one of the following certifications and ratings or demonstrate equivalent performance: National Australian Built Environment Rating System (NABERS) — minimum 4.5 Star or above Green Building Council of Australia (GBCA) Green Star — minimum 5 Star or above 	 Green or equivalent certifications obtained ESD principles scorecard Materials sourced sustainably (including certified products, recycled content) (%)

¹ Macquarie University's Sustainability Financing Framework and Sustainalytics' Second Party Opinion on the Framework are on Macquarie University Website, at: https://staff.mq.edu.au/support/office-and-property-services/property-planning-and-management.

² Sustainalytics, "Macquarie University Annual Review", (2022) at: https://mstar-sustops-cdn-mainwebsite-s3.s3.amazonaws.com/docs/default-source/spos/mq-university-annual-review-2022.pdf?sfvrsn=7df23809 1

³ The ESD Principles Scorecard requires design initiatives in the construction of a building that provide the equivalent of a 5 Star-rated project under the nominated Green Star tool.

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	 For renovations or upgrades of existing buildings, deliver a minimum 30% reduction in carbon emissions intensity Any other good green design label that can be demonstrated to be equal or better than above Procurement of sustainably sourced building materials, including certified products (such as FSC timber) or products containing recycled content (such as concrete and glass) 	
Environmentally Sustainable Management of Living Natural Resources and Land Use	 Preservation or restoration of natural landscapes, including biodiversity conservation and wetland projects such as the Mars Creek and Bushcare programmes. Facilities and infrastructure or upgrades that contribute to research programmes that contribute to the conservation of oceans, seas and marine reserves; the protection, restoration and sustainable use of ecosystems; or the reduction and reversal of land degradation and biodiversity such as the Biological Science Research Facility 	 Amount of land covered by open space (in hectares and percentage of total land) Amount of land covered by trees, plants, shrubs, etc. (in hectares and percentage of total land) Number of trees planted Avoidance or reduction of biodiversity loss (in number of species) Quality enhancement of soil, land or water through management practices associated with land-use specific projects For new builds and upgrades: number of research programmes contributing to the protection, restoration and sustainable use of ecosystems and forests; and the halting or reversal of land degradation and biodiversity loss For new builds and upgrades: number of research programmes contributing to the conservation and sustainable use of oceans, seas and marine resources
Access to Essential Services	 New buildings and upgrades to facilities providing clinical care Expenditure to support access to facilities and services that are disability- and gender-sensitive and provide safe, non-violent, inclusive and effective learning environments for all Enhance capacity for scientific research, including upgrading technological capabilities, to ensure universal access across campus and encourage innovation and research and development 	 Number of people reached with new or improved healthcare facilities Proportion of campus covered by a reliable WiFi network or technological upgrades to improve learning outcomes Number of new or upgraded facilities that are disability- and gender-sensitive and provide safe, non-violent, inclusive and effective

Issuer's Responsibility

MQU is responsible for providing accurate information and documentation relating to the details of the projects, including description of projects, amounts allocated and project impact.

Independence and Quality Control

Sustainalytics, a leading provider of ESG research and ratings, conducted the verification of the use of proceeds from MQU's Sustainability Bond. The work undertaken as part of this engagement included collection of documentation from MQU and review of said documentation to assess conformance with the Macquarie University Sustainability Financing Framework.

Sustainalytics relied on the information and the facts presented by MQU. Sustainalytics is not responsible, nor shall it be held liable for any inaccuracies in the opinions, findings or conclusions herein due to incorrect or incomplete data provided by MQU.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight of the review.

Conclusion

Based on the limited assurance procedures conducted,⁴ nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed projects do not conform with the use of proceeds criteria and reporting commitments in the Macquarie University Sustainability Financing Framework. MQU has disclosed to Sustainalytics that from the four sustainability bonds that MQU issued, the proceeds of the first two bonds were fully allocated as at 27 May 2019, proceeds of the third bond were fully allocated as at 26 July 2022, and the proceeds of the fourth bond were fully allocated as at 25 May 2021.

Detailed Findings

Table 2: Detailed Findings

Framework Requirements	Procedure Performed	Factual Findings	Error or Exceptions Identified
Use of Proceeds Criteria	Verification of the projects funded with proceeds from the Sustainability Bonds between September 2018 and August 2023 to determine if projects aligned with the use of proceeds criteria outlined in the Macquarie University Sustainability Financing Framework	All projects reviewed complied with the use of proceeds criteria.	None
Reporting Criteria	Verification of the projects funded with proceeds from the Sustainability Bonds between September 2018 and August 2023 to determine if impact of projects was reported in line with the KPIs outlined in the Macquarie University Sustainability Financing Framework. For a list of KPIs reported please refer to Appendix 1	All projects reviewed reported on at least one KPI per use of proceeds category.	None

⁴ Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the funded projects, including description of projects, their estimated and realized costs and impact, as provided by the issuing entity, which is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

Appendices

Appendix 1: Allocation Report by eligibility criteria

As at 31 August 2023, MQU had allocated 100% of the net proceeds from the Sustainability Bonds as follows:

i) AUD 479.3 million (95.9% of proceeds) in the Green Buildings category, ii) AUD 7.7 million (1.5% of proceeds) in the Environmentally Sustainable Management of Living Natural Resources and Land Use category, and iii) AUD 13 million (2.6% of proceeds) in the Access to Essential Services category. The table below provides a detailed breakup of allocation of the net proceeds.

Table 3: Allocation Reporting

Use of Proceeds Category	Projects	Amount Allocated (AUD million)
	MUCCP Stages 2, 4, 5	252.3
	Michael Kirby Law Building	73
Green Buildings	School of Engineering and Australian Astronomical Optics	127
	MUCCP Stage 6a.2 - 18 Wally's Walk	27
Environmentally Sustainable Management of Living Natural Resources and Land Use	MUCCP Stage 7	7.75
Access to Essential Services	Endoscopy Clinic at Macquarie University Hospital	12
	MQ Health Clinic at Trafalgar Place	1
	Total	500 ⁶

Appendix 2: Reported Impact by eligibility criteria

Table 4: Impact reporting

Use of Proceeds Category	Impact Reported (As at 31 August 2023)
	Macquarie University Central Courtyard Precinct (MUCCP) Stage 4 - Lincoln Building:
	 Description: This includes major refurbishment of 3 levels of workplace accommodation and provision of 6 new retail spaces.
Green Buildings	 Status: Operational since July 2020. Defects liability period⁷ was completed as at 13 August 2021.
	 Impact indicator: 5 Star Green Star (GBCA) — Design & As Built v1.2 rating tool (Australian Excellence)
l	MUCCP Stages 2 & 5a -1 Central Courtyard:

⁵ As communicated to Sustainalytics by MQU.

⁶ Out of AUD 500 million (USD 332 million) allocated, MQU has funded AUD 369.9 million (USD 234.81 million) as at 31 August 2023.

⁷ During the defects liability period the builder is liable for any building defects found after the building works have been completed and before the building (or area within the building) is handed back to the university.

- Description: This is a new construction consisting of formal and informal learning and teaching spaces, graduation hall and food and beverage retail spaces
- Status: Operational since February 2021. Defects liability period was completed as at 14 February 2022.
- Impact indicator: 5 Star Green Star (GBCA) Design & As Built v1.2 rating tool (Australian Excellence)

MUCCP Stage 5b - Student Accommodation Buildings R1 & R2:

- Description: This is a new construction including residential student accommodation spread across two buildings (with common podium) with a 342-bed capacity.
- Status: Operational since February 2021. Defects liability period was completed as at 22 January 2022.
- Impact indicator: 5 Star Green Star (GBCA) Design & As Built v1.2 rating tool (Australian Excellence)

Michael Kirby Law Building:

- Description: This is an expansion of 17 Wally's Walk to accommodate the needs of MQ Law School.
- Status: Construction of the Law School commenced in May 2022 and it is still under construction.
- Impact indicator: 5 Star Green Star (GBCA) Design & As Built v1.3 rating tool (Australian Excellence)

School of Engineering and Australian Astronomical Optics Building:

- Description: This is a new construction and refurbishment of the existing buildings of a multi-disciplinary building for engineering and astronomy.
- Status: Awaiting confirmation of the development application.
- Impact indicator: Planning for 5 Star Green Star (GBCA) Green Star Buildings V1 rating tool (Australian Excellence)

MUCCP Stage 6a.2 - 18 Wally's Walk:

- Description: This is a refurbishment of multiple levels of Macquarie University's original library building.
- Status: Operational since June 2022. Defects Liability Period was completed in June 2023.
- Impact indicator: 5 Star Green Star (GBCA) Interiors v1.3 rating tool (Australian Excellence)

MUCCP Stage 7 – Mars Creek Rehabilitation works:

Environmentally Sustainable Management of Living Natural Resources and Land Use

- Description: Rehabilitation of Mars Creek Reach 3 focuses on ameliorating the habitat 'truncations' from previous hard engineering works originating in the 1960s. This project includes 'daylighting' or opening up a section of creek that was piped in a subterranean stormwater system for more than 50 years.
- Status: Operational since May 2020. Defects liability period was completed as at 12 February 2022.
- Impact indicator: The project has created a new naturalised surface channel through a section of the original creek bed which reinstates the riparian zone of approximately 20 metres in width. Additional habitat features include a re-made culvert inlet that will offer native freshwater eels a new migration route from their existing habitat in the university's lake, to the rehabilitated upper

	reaches of Mars Creek. MQU has confirmed to Sustainalytics that the rehabilitation also achieved the following: i) 68% increase in tree canopy and native plants on the creek landscape between 2018 and 20238; ii) 90% reduction in gross pollutants in Mars creek outflow in 2022 as compared to 2018 levels; and iii) 80% reduction in total suspended solids in Mars Creek outflow in 2022 as compared to 2018 levels. ⁹
	Endoscopy Clinic at Macquarie University Hospital:
	 This includes fit-out and refurbishment within the Macquarie University Hospital to expand and enhance the capacity and capability of Endoscopy.
	Status: Operational since December 2021. Defects Liability period completed as at 12 November 2022
Access to Essential Services	 Impact indicator: Refurbishment of the endoscopy clinic increased patient capacity by 50% and provided equipment for over 5000 diagnostic and therapeutic specialist procedures. 7,460 patients were admitted in the refurbished endoscopy clinic between September 2022 and August 2023.¹⁰
	MQ Health Clinic at Trafalgar Place:
	Fit-out and refurbishment of tenancy to accommodate MQ Health Clinic to expand the capacity and outreach of General Practitioner health services to the community.
	Status: Operational since November 2020. Defects liability period was completed as at November 2022.
	Impact indicator: Increase in patient capacity which allows up to approximately 20,000 patient visits annually.

 $^{^{\}rm 8}$ As communicated to Sustainalytics by MQU.

 $^{^{\}rm 9}$ As communicated to Sustainalytics by MQU.

¹⁰ As communicated to Sustainalytics by MQU.

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Part III
Allocation of Funds and Use of Proceeds



Parts III: Allocation of funds and use of proceeds

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- 3.3 Use of Proceeds
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 - 3.4.2 Endoscopy Clinic at Macquarie University Hospital
 - 3.4.3 MQ Health Clinic at Trafalgar Place
 - 3.4.4 Michael Kirby Law Building
 - 3.4.5 School of Engineering and Australian Astronomical Optics
 - 3.4.6 MUCCP Stage 6a.2 18 Wally's Walk

The Framework was developed in August 2018 to demonstrate how Macquarie University intends to enter into Sustainability Financing Transactions ("SFTs") with proceeds earmarked to finance, or refinance, projects and expenditures that will deliver positive environmental and social outcomes and which support Macquarie University's strategy and vision.

In accordance with Section 2.4 of the Framework, the following Annual Report relates to the reporting period of 1^{st} September $2022 - 31^{st}$ August 2023.

Information regarding Macquarie University's Sustainability Targets can be found here, whilst information regarding the alignment of Macquarie University's core activities with the United Nations Sustainable Development Goals can be found here. Macquarie University is in the process of creating the next sustainability strategy to 2030 which will build on past achievements.

3.1 SUMMARY OF SUSTAINABILITY FINANCING TRANSACTIONS (SFTs)

The following table is a summary of the SFTs:

Table 3: Sustainability Financing Transactions (A\$'M) – 31 August, 2023

Transaction	Identifier/ISIN	Coupon	Term	Maturity	Principal Amount (A\$'m)	Allocation (A\$'m)	Spent to 31 st Aug 2023 (A\$'m)	Further to Spend (A\$'m)
2018 MTN	AU3CB0256279	3.50%	10yr	Sep 2028	200.0	200.0	200.0	-
2018 MTN	AU3CB0256295	4.50%	25yr	Sep 2043	50.0	50.0	50.0	-
2019 MTN	AU3CB0268399	2.25%	10.5yr	May 2030	160.0	160.0	46.7	113.3
2019 MTN	AU3CB0268472	3.10%	25yr	Nov 2044	90.0	90.0	73.2	16.8
	Total				500.0	500.0	369.9	130.1

3.2 ALLOCATION REPORTING

In accordance with Section 2.2 of the Framework, the University's Finance and Facilities Committee (a committee of Council), approved the full allocation of the \$500m in proceeds from the Bonds raised under the Framework.

Table 4: Allocation of Proceeds (A\$'M) – 31 August, 2023

(A\$m)

Identifier/ISIN		Allocation of Projects							
	Principal	MUCCP Stages 2, 4, 5 & 7 ⁵	Endoscopy Clinic at MQH	MQH Clinic at Trafalgar Place	Law Building	Engineering & Astronomy	MUCCP Stage 6a.2 - 18 Wally's Walk	Total Allocation	
AU3CB0256279	200.0	200.0	-	-	-	-	-	200.0	
AU3CB0256295	50.0	50.0	-	-	-	-	-	50.0	
AU3CB0268399	160.0	-	12.0	1.0	3.0	117.0	27.0	160.0	
AU3CB0268472	90.0	10.0	-	-	70.0	10.0	-	90.0	
Total	500.0	260.0	12.0	1.0	73.0	127.0	27.0	500.0	

⁵ Includes 1 Central Courtyard, Residential Student Accommodation R1 & R2, Lincoln Building Refurbishment and Mars Creek Rehabilitation Works.

3.3 USE OF PROCEEDS

The following table is a summary of the Funding and Expenditure:

Table 5: Funding and Expenditure (A\$'M) - 31 August, 2023

(A\$m)

- <i>-</i>		Projects Currently Funded						
Identifier/ISIN	Allocation	MUCCP Stages 2, 4, 5 & 7 ⁶	Endoscopy Clinic at MQH	MQH Clinic at Trafalgar Place	Law Building	Engineering & Astronomy	MUCCP Stage 6a.2 - 18 Wally's Walk	Total Spent
AU3CB0256279	200.0	200.0	-	-	-	-	-	200.0
AU3CB0256295	50.0	50.0	-	-	-	-	-	50.0
AU3CB0268399	160.0	-	12.0	1.0	3.0	3.7	27.0	46.7
AU3CB0268472	90.0	10.0	-	-	53.2	10.0	-	73.2
Total	500.0	260.0	12.0	1.0	56.2	13.7	27.0	369.9

⁶ Includes 1 Central Courtyard, Residential Student Accommodation R1/R2, Lincoln Building Refurbishment and Mars Creek Rehabilitation Works.

3.4 PROJECT OVERVIEWS: PROJECTS CURRENTLY FUNDED

3.4.1 Macquarie University Central Courtyard Precinct ("MUCCP")

Project Part: MUCCP Stage 4 – Lincoln Building

Project Major Refurbishment of 3 levels of workplace accommodation and

Description: provision of 6 new retail spaces, totaling approximately 2,570m².

Eligibility

Category: Green Buildings

Impact Measure 5 Star Green Star (GBCA) - Design and As Built v1.2 (Awarded)

Project Status: Operational







Project Part: MUCCP Stages 2 & 5a – 1 Central Courtyard

New Development consisting of formal and informal learning and teaching

spaces, graduation hall and food and beverage retail spaces, totaling

Project
Description:

approximately 15,400m².

Includes Stage 2 – Central Courtyard Upgrade, as it supports and is ancillary

to the adjacent buildings in Stage 5

Eligibility

Category: Green Buildings

Impact Measure 5 Star Green Star (GBCA) - Design and As Built v1.2 (Awarded)

Project Status: Operational







Project Part: MUCCP Stage 5b – Student Accommodation Buildings R1 & R2

Project

New Development consisting of Residential Student Accommodation

Project

242 had

Description: spread across two buildings (with common podium) with a 342-bed

capacity, totaling approximately 11,950m².

Eligibility

Category: Green Buildings

Impact Measure 5 Star Green Star (GBCA) - Design and As Built v1.2 (Awarded)

Project Status: Operational





Project Part: MUCCP Stage 7 – Mars Creek Rehabilitation Works

The rehabilitation of Mars Creek Reach 3, focuses on ameliorating the habitat 'truncations' from previous hard engineering works originating in the 1960s. This includes 'daylighting' or opening up a section of creek that was piped in a subterranean stormwater system for more than 50 years.

Project Description:

The project has created a new naturalised surface channel through a section of the original creek bed which reinstates a riparian corridor of approximately 20 metres in width. Additional habitat features include a remade culvert inlet that offers native freshwater eels a new migration route from their existing habitat in the university's lake, to the rehabilitated upper reaches of Mars Creek.

Eligibility Environmentally Sustainable Management of Living Natural Resources

Category: and Land Use.

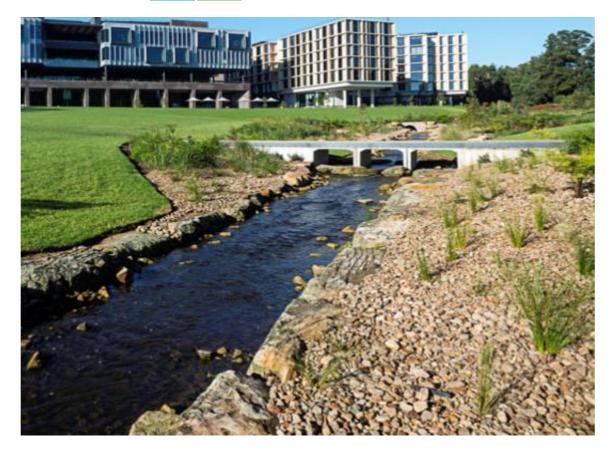
Impact Preservation or restoration of natural landscapes including biodiversity

Measure: conservation and wetland.

Project Status: Operational







3.4.2 Endoscopy Clinic at Macquarie University Hospital

Project Description: Fitout and refurbishment within the Macquarie University Hospital

to expand and enhance the capacity and capability of Endoscopy

Services to the community.

Eligibility Category: Social – Access to essential services – new buildings and upgrades

to facilitate providing clinical care.

Impact Measure: Increase in patient capacity to over 5000 diagnostic and

therapeutic specialist procedures annually

Project Status: Operational





3.4.3 MQ Health Clinic at Trafalgar Place

Project Description: Fitout and refurbishment of tenancy to accommodate MQ Health

Clinic to expand the capacity and outreach of General Practitioner

health services to the community.

Eligibility Category:

Social – Access to essential services – new buildings and upgrades to

facilitate providing clinical care.

Impact Measure: Increase in patient capacity to allow up to approx. 20,000 patient

visitations annually.

Project Status: Operational





3.4.4 Michael Kirby Law Building

Project Description: An adaptive re-use and expansion of 17 Wally's Walk to provide a

purpose-designed facility creating a flexible environment to accommodate the emerging needs of the MQ Law School.

Eligibility Category: Green Buildings

Impact Measure: 5 Star Green Star (GBCA) - Design and As Built v1.3 (Planned)

Project Status: Construction







3.4.5 School of Engineering and Australian Astronomical Optics Building

Project Description:

A dedicated major new multi-disciplinary building for Engineering and

Astronomy, and to enable collaboration with other parties.

Eligibility Category: Green Buildings

Impact Measure: 5 Star Green Star (GBCA) – Green Star Buildings v1 (Planned)

Project Status: Development Application Lodged with City of Ryde- approval expected

2023

SDG

Alignment:





3.4.6 MUCCP Stage 6a.2 - 18 Wally's Walk

Project Interior Fit out and refurbishment across multiple levels of Macquarie

Description: University's original library building.

Green Buildings:

Eligibility
Category:

Star Green Star (GBCA) Interiors v1.3

Impact

Measure: 5 Star Green Star (GBCA) - Interiors v1.3 (In progress)

Project Status: Operational







Part IV Impact Reporting



PART IV: Impact Reporting

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 - 4.1.1 MUCCP: Impact Measure Green Buildings
 - 4.1.2 MUCCP: Impact Measure Environmentally Sustainable Management of Living Natural Resources and Land Use
- 4.2 Endoscopy Clinic at MQ Hospital: Eligibility Category Access to essential services new buildings and upgrades to facilitate providing clinical Care
- 4.3 MQ Health Clinic at Trafalgar Place: Eligibility Category Access to essential services new buildings and upgrades to facilitate providing clinical Care
- 4.4 Michael Kirby Law School Green Buildings
- 4.5 School of Engineering and Australian Astronomical Optics Green Buildings
- 4.6 MUCCP Stage 6a.2 18 Wally's Walk Green Buildings

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4.1 MUCCP PROJECT OVERVIEW & PROJECT IMPACT

PURPOSE

In accordance with Section 2.4(c) of the Framework, this impact report relates to MUCCP as nominated in accordance with Section 2.2 of the Framework as an Eligible Project.

Project: Macquarie University Central Courtyard Project (MUCCP), comprising:

- Stage 2 Central Courtyard Redevelopment;
- Stage 4 C8A Lincoln Building;
- Stage 5a 1 Central Courtyard;
- Stage 5b Residential Student Accommodation Buildings R1 & R2;
- Stage 7 Mars Creek Rehabilitation Works.

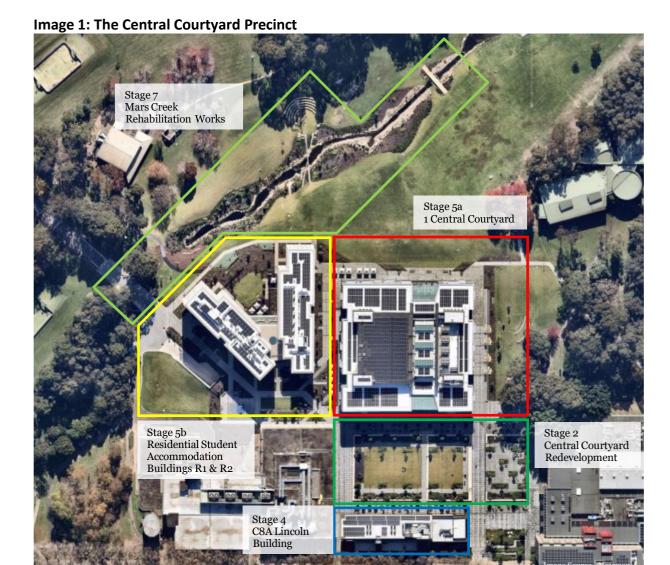


Image 2: MUCCP Central Courtyard Precinct



Project Overview

This rejuvenation and renewal of the Central Courtyard and the buildings that surround it, is a critical part of the reinforcement of the Central Courtyard Precinct as the "heart of the campus".

The guiding vision for the design for the Central Courtyard Precinct was to create a vibrant dynamic precinct that:

- Creates a focus for the entire University community students, staff and visitors;
- Manifests the vision for and aspirations of the University;
- Creates a memorable and meaningful place;
- Respects and celebrates the architectural, cultural and landscape heritage of the project;
- Engages and enhances the campus through sustainability, functionality and design;
- Accommodates a wide variety of functions and activities, both permanent and temporary;
- Is sustainable, functional, flexible and capable of evolving over time.

This was delivered as a program of 'Project Parts', which serves a variety of functions, delivering new social and educational infrastructure at the very heart of the campus, incorporating approximately 68,000m² of gross floor area (GFA) across both new and refurbished buildings and associated public realm.

The nominated Project Parts (as listed above), being funded under the Framework, have been delivered under a single Construction Contract to FDC Constructions (NSW) Pty Ltd.

The 2023 Impact Report sees no material departure from the 2022 Impact Report.

4.1.1 MUCCP Impact Measure – Green Buildings



Impact Measure #1

Eligible Category: 2.1.1 Green: Green Buildings

Eligibility Projects: New construction and/or renovation of existing buildings that have

or will receive any one of the following certifications/ratings or

demonstrate equivalent performance as listed below.

- Green Building Council of Australia (GBCA) Green Star (minimum 5

Star or above).

Impact Indicators: Green or equivalent certifications obtained.

Project Alignment: Given the diversity of functional building types included in the Project,

three separate applications have been made to the GBCA as noted in the

table on the following page.

Table 6: Applications to the Green Building Council of Australia

Project	Stage 4 – Lincoln Building	Stage 5a 1 Central Courtyard	Stage 5b Residential Student Accommodation Buildings R1 & R2		
Project Description	Refurbishment of office space and provision of 6 new retail spaces.	New learning and teaching building, retail spaces and graduation hall.	342 bed student accommodation across two buildings with common podium.		
Rating Tool	Green Star – Design and As Built v1.2				
Project Size (GFA)	2,570m²	15,400m²	11,950m²		
Desired rating	5.0 Star Green Star				
Rating Type	Major Refurbishment	New Construction	New Construction		
Space Use	Class 5/6	Class 5/6/9b	Class 3/7a/9b		
GBCA Project Registration Number	GS-4589DA	GS-4588DA	GS-4587DA		
Approval date	2 nd August 2021	22 nd July 2022	25 th July 2022		

^{*}Stage 2 of the Central Courtyard Redevelopment, which comprises the landscape treatment of the public realm, is captured within Green Star assessment of the adjacent buildings.

4.1.2 MUCCP Impact Measure – Environmentally Sustainable Management of Living Natural Resources and Land Use

Image 3: Mars Creek Time Lapse Images



Impact Measure # 2

Eligible Category: 2.1.1 Green: Environmentally Sustainable Management of Living Natural Resources and Land Use.

Eligibility Projects: Preservation or restoration of natural landscapes including biodiversity conservation and wetland projects such as the Mars Creek and Bushcare programs.

- Impact Indicators the amount of land covered by open space (ha and %);
- Amount of land covered by trees, plants, shrubs etc. (ha and %);
- Number of trees planted;
- Avoidance or reduction of biodiversity loss (# of species);
- Quality enhancement of soil and/or land and/or water through management practices associated with land use specific projects.

Discharge of run-off

Upstream (off campus) flows are contained within urban drains collecting runoff from the local district (roads, roofs, parkland etc). Once on campus, these below-ground systems are discharged into two creeks, which discharge downstream into the Lane Cove River (via the Lane Cove National Park) which is an upper tributary of Sydney Harbour.

Since 2010, Macquarie University has progressively rehabilitated the creeks and associated riparian zones toward a state capable of supporting aquatic habitats, and in doing so, installed intervention devices that include some form of detention, retention (e.g. water reuse or infiltration system), water quality infrastructure and biodiversity zones to protect the instream environment.

The above interventions, together with large areas of the catchment that allow storm water runoff to be intercepted by our landscape, create significant amelioration of 'Urban Stream Syndrome' impacts of extreme/erosive storm flows and suppressed dry-weather flows.

To date, the progressive reinstatement of the creek lines and rehabilitation of associated vegetated riparian zones, across 50 per cent of the University's creek landscape, has added 60,000 ⁷native plants along 800 metres of creek edge.

The benefits to this combined water catchment and Creek Rehabilitation Strategy are:

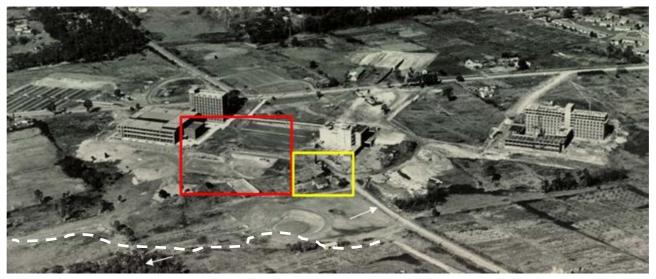
- Improved amenity for the Macquarie University community;
- Flood mitigation, both on campus, and to the downstream flows in the Lane Cove River (Sydney Harbour);
- Water purification and pollution control.

⁷ Derived from the planting list from the projects

MUCCP – Stage 7 Mars Creek Reach 3 Rehabilitation Works

Images 4 - 5 Demonstrates the prior impacts to the campus's main watercourse through the mid 20th Century, then the re-establishment across the period 2000-present of a native riparian corridor along Mars Creek which runs south to north through the university.

Image 4: The University under construction in 1967, looking south east towards the Central Courtyard Precinct (Stage 5a is indicated in red, 5b in yellow)



^{*}The dotted lines indicate the former path of Mars creek directly before it was piped underground.

By the end of the 20th Century, the main habitat values of the Mars Creek valley were confined to the water bird habitats of the constructed campus lake, and natural bushland extending from near the northern lake shore up onto adjoining ridge lines. Elsewhere in this catchment, minimal native habitat had been sustained or replenished in the early decades of the university.

Image 5, next page depicts the active re-establishment of a vegetated riparian corridor, initially downstream of the campus lake through the early 2000s, subsequently in the upper half of the corridor in the 2009 to 2013 period, and most recently the re-created creek and vegetation corridor for MUCCP Stage 7. It is this last project which begins the process of habitat reconnection between the previously isolated lake-shore zone and upstream sections.

Bird, reptile and amphibian colonisation of the new habitats has been observed at these early stages of recovery, while tree dwelling marsupials are present in the sections of more advanced tree growth.

In the adjacent new and refurbished building precinct (Stages 4, 5a), a new drainage network surrounding the reinstated courtyard directs all received storm water into a 180,000 litre tank within the new building's basement.

Retention of water within the catchment is achieved through reticulating the treated storm water for use in the building's cooling towers, and also a watering system for all local garden beds. Cleaning of the stored water is achieved by a cartridge filtration system of self-flushing cylinders of a phosphorous locking gravel media. To date, these systems have prevented release to Mars Creek of at least 4 cubic metres of silt and other suspended sediment (based on clean-out reporting by maintenance service).

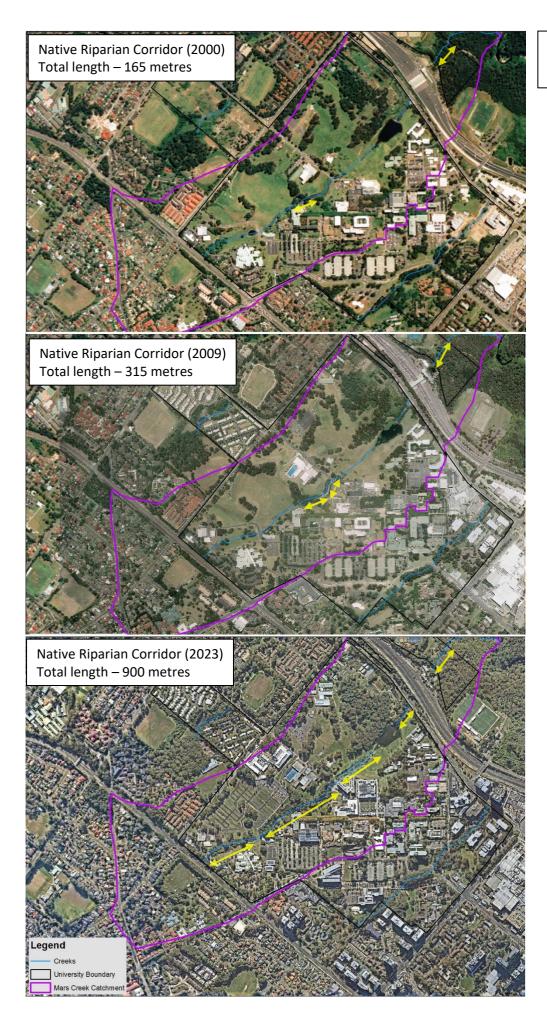


Image 5: Riparian Zone Extent across the period 2000-2023

Image 6: An aerial photo indicating the re-constructed Mars Creek Reach 3 in 2022



The Rehabilitation of Mars Creek Reach 3

The rehabilitation of Mars Creek Reach 3, focuses on ameliorating the habitat 'truncations' from previous hard engineering works originating in the 1960s. This includes 'daylighting' or opening up a section of creek that was piped in a subterranean stormwater system for more than 50 years.

The project has created a new naturalised surface channel through a section of the original creek bed which reinstates a riparian corridor of approximately 20 metres in width. Additional habitat features include a re-made culvert inlet that offers native freshwater eels a new migration route from their existing habitat in the university's lake, to the rehabilitated upper reaches of Mars Creek.

Key Landscape Design Principles

The proposed Mars Creek works within the Reach 3 zone described above adhere to the general design principles listed below:

- The implementation of environmentally sustainable design principles;
- Storm water management including water sensitive urban design initiatives (WSUD) such as bio swales;
- New tree planting to offset existing tree removal in the vicinity of the proposed works;
- High quality, low maintenance materials and planting;
- Ensure that the public domain has been designed with regard to crime prevention through environmental design (CPTED) principles;
- Provide bed and bank stability and reducing bank and channel erosion;
- Provide an interface or buffer between developments and waterways
- Provide passive recreational us

4.2 ENDOSCOPY CLINIC AT MQ HOSPITAL

PURPOSE

In accordance with Section 2.4(c) of the Macquarie University Sustainability Financing Framework (the 'Framework, this Impact Report relates to the Project as nominated in accordance with Section 2.2 of the Framework as an Eligible Project.

PROJECT OVERVIEW

Fit out and refurbishment within the Macquarie University Hospital to expand and enhance the capacity and capability of Endoscopy Services to the community.

The redevelopment of the endoscopy unit addresses critical issue of non-compliant scope flow (decontamination) within existing unit, and non-compliant recovery to procedure room ratio. Failure to address would result in Macquarie University Hospital losing accreditation to perform endoscopic procedures.

The project has relocated the existing endoscopy service to an alternate ground floor location, providing

- Increased capacity with the addition of a third procedure room to meet the demand for growing therapeutic and diagnostic endoscopic services,
- Relocation of main reception and complementary modernisation of hospital foyer,
- Dedicated patient admissions office,
- Dedicated outpatient entrance and private waiting area, offering an improved patient experience,
- Dedicated inpatient entrance for transport of inpatients by bed, trolley, or wheelchair.

The project involved the decant of over 100 support staff from existing ground floor area to office space.

The project is complete and operational since Dec-21.







IMPACT MEASURE

Eligible Category: 2.1.2 Social – Access to essential services

Eligibility Projects: New buildings and upgrades to facilitate providing clinical care.

Impact Indicators: Increase in patient capacity.

Services Provided: The Endoscopy unit at Macquarie University Hospital provides over 5,000 diagnostic and therapeutic specialist procedures annually.

MQ Health are committed to the adoption of improved models of care in accordance with contemporary evidence-based best practice.

The Endoscopy unit provides procedures in line with advances in

technology with a focus on patient-centred care.

Macquarie University Hospital's Endoscopy unit has been operating since the hospital opened in 2010 and activity has grown exponentially. The medical team comprises 24 specialists, providing an essential diagnostic and support service to patients of MQ Health.

This unit provides specific Endoscopy services in a day surgery environment, including:

- Gastroscopy
- Colonoscopy
- ERCP (endoscopic retrograde cholangio-pancreatography)
- Oesophagyeal and anal manometry
- Endoscopic ultrasound
- Biopsy
- Urodynamics

These procedures can aid in the diagnosis, management and treatment of:

- Gastroesophageal reflux disease
- Cholelithiasis (gall stones)
- Stomach and colon cancer
- Conditions of the digestive system
- Polyp removal biopsy
- Minor anorectal surgical procedures

The Endoscopy unit allows MQ Health to increase service capacity to the local community and further develop an environment that facilitates the training of the next generation of health professionals.

4.3 MQ HEALTH CLINIC AT TRAFALGAR PLACE

PURPOSE

In accordance with Section 2.4(c) of the Macquarie University Sustainability Financing Framework (the 'Framework, this Impact Report relates to the Project as nominated in accordance with Section 2.2 of the Framework as an Eligible Project.

PROJECT OVERVIEW

Fit out and refurbishment of tenancy to accommodate MQ Health Clinic to expand the capacity and outreach of General Practitioner health services to the community:

- Fit out of vacant tenancy to facilitate new GP clinic (205sqm).
- Minor cosmetic upgrade of existing 75sqm GP clinic.
- Compliance upgrade to centre to toilets to meet new clinic requirements and BCA compliance. Provision of accessible toilet.

Primary care business development and expansion is part of MQ Health's strategy, with the goal of increasing community presence and referrals to specialist and ancillary services and the Hospital.

With a long standing tenant vacating the Macquarie University premises at 1 Trafalgar Place, Marsfield, a time-critical opportunity was taken to develop a new MQ Health general practice site specifically to support a chronic and complex care model.

This opportunity provided increased attraction and retention for our GP workforce, new and unique learning opportunities for students and doctors in training, increased capacity to serve the community and generate referrals and the ability to trial and evaluate new and innovative models of care in service of our patients.

The project is complete and operational since Nov-20.



IMPACT MEASURE

Eligible Category: 2.1.2 Social – Access to essential services

Eligibility Projects: New buildings and upgrades to facilitate providing clinical care.

Impact Indicators: Increase in patient capacity.

Services Provided: The MQ Health Clinic at Trafalgar Place provides for up to 5 full-time

General Practitioners to provide medical services to the local community. This will allow for up to approximately 20,000 patient

visitations annually.

This clinic provides general practice medical and nursing services, including:

- Children's health
- Women's health
- Men's health
- Vaccinations (including COVID-19)
- Mental health
- Sexual health
- Preventive health
- Chronic disease management

A room is leased to Douglass Hanly Moir to provide pathology services to the community.

The clinic also provides an outreach service to Willandra Residential Village, and to nearby aged care facilities.

The clinic employs academic GPs who support other programs at MQ Health, Macquarie University and beyond:

- Macquarie MD Program
- Macquarie University Student Wellbeing
- MQ Health Doctors in Training Program
- Australian Institute of Health Innovation's Learning Health Systems Project
- GP Synergy's Registrar Training Program
- Sydney North Health Network's Person Centred Medical Home Program

4.4 MICHAEL KIRBY LAW BUILDING

PURPOSE

In accordance with Section 2.4(c) of the Macquarie University Sustainability Financing Framework (the 'Framework, this Impact Report relates to the Project as nominated in accordance with Section 2.2 of the Framework as an Eligible Project).

PROJECT OVERVIEW

Macquarie Law School is in a phase of strategic development that involves significant change to adapt to a dynamic environment for all its stakeholders. Australia, its society and communities, as well as its own region and the world more broadly face deep strategic and generational challenges. For the Macquarie Law School to serve the common good into the future, it needs to provide solutions to these challenges. Macquarie Law School is to become more than a law school, that is, it aims to lead, to inspire, to partner, and to collaborate.

The Law School has identified priorities in its academic mission that give life to this aspiration. These include thematic approaches to social inclusion, technology and its role in an open society, environmental sustainability, corporate citizenship and the intersection of health, law, and society.

Over the past 10 years Macquarie Law School has grown significantly in its teaching enterprise. This was primarily demonstrated in strong growth in domestic undergraduate student load and associated revenue. This, combined with a large casualised teaching workforce, has enabled the Law School to aim to become a significant financial contributor to the University.

The current physical environment for Law School staff and students severely limits the School's capacity to achieve its strategic goals in the coming years, as well as presenting compliance and Work Health and Safety concerns for the University.

The Law School building redevelopment proposes a Law School Hub, which aims to bring industry and the professions to Macquarie University. The Law School Hub also aims to develop collocated partnerships. The first of these is a partnership with DLA-Piper to provide low-cost family law services, the following link explains the initiative <u>Wallumatta Legal</u>

Impact Measure

Eligible Category: 2.1.1 Green: Green Buildings

Eligibility Projects: New construction and/or renovation of existing buildings that have

or will receive any one of the following certifications/ratings or

demonstrate equivalent performance as listed below.

- Green Building Council of Australia (GBCA) Green Star (minimum 5

Star or above).

Impact Indicators: Green or equivalent certifications obtained.

Project Alignment:

Project	Michael Kirby Law Building		
Project Description	New Construction		
Rating Tool	Green Star – Design and As Built v1.3		
Project Size (GFA)	9,887m²		
Desired rating	5.0 Star Green Star		
Rating Type	Major Refurbishment		
Space Use	Class 5/9b		
GBCA Project Registration Number	GS-6929DA		
Approval date	TBD		



4.5 SCHOOL OF ENGINEERING AND AUSTRALIAN ASTRONOMICAL OPTICS

PURPOSE

In accordance with Section 2.4(c) of the Macquarie University Sustainability Financing Framework (the 'Framework, this Impact Report relates to the Project as nominated in accordance with Section 2.2 of the Framework as an Eligible Project).

PROJECT OVERVIEW

STRATEGIC CASE (2022-2026)

The Faculty of Science and Engineering's ("FSE") Vision and Strategic Plan for the next five-years are to improve:

- student experience, employability, and outcomes
- HDR pathways and outcomes
- industry engagement resulting in authentic collaboration opportunities
- spaces, infrastructure, and facilities to attract and retain students and outstanding staff

The relocation of the School of Engineering and AAO into facilities fit for purpose is central to the success of FSE in meeting these strategic goals.

Co-location in appropriate facilities is especially important for STEM-based disciplines and will bring with it enhanced collaboration and positive outcomes. Strong research, teaching and commercial connections exist across the School of Engineering and AAO, and FSE more broadly, such as shared teaching between Engineering, Computing and MaPS (i.e., Mathematics, Computing and Physics are core disciplines within an Engineering education). FSE brings these disciplines together while respecting distinctiveness in activities (i.e., AAO MQ is a semi-commercial enterprise) and fields (i.e., engineering being distinct from sciences) through its renewed academic organisational structure and investment in culture as outlined in FSE's Strategic Plan 2022-2026.

The School of Engineering and AAO MQ are currently spread across seven buildings off and on the main campus. This significantly hampers the ability of FSE to attract and retain students and outstanding staff in Engineering and Astronomy as locations, and spaces including infrastructure and facilities are inconvenient and don't allow for staff and students to effectively discover, learn, create and work together. Exposing Engineering students to AAO-MQ project management and technical expertise, including showcasing the build process for bespoke systems that will be used in telescopes around the globe and in Space, will be integral to their learning experience. Co-location will also provide increased opportunities for PACE students, summer scholarships/internships and work-integrated learning. The current arrangements also do not allow for efficient use of space and facilities which could be gained through consolidation of laboratories and other spaces. These factors reduce cohesion and promote silos within sub-disciplines.

To enable collaboration across disciplines with strong research, teaching and industry connections the project allows for:

- Co-location in the FSE precinct close to core disciplines to Engineering teaching (i.e., Mathematics, Physics and Computing)
- Relocation of AAO MQ research and commercially focused staff into shared facilities to enhance innovation and collaboration

The building redevelopment will be an industry hub for FSE, bringing industry collaborators to the University. To develop these partnerships, appropriate accommodation is required to support external engagement including spaces for meetings, collaborative activities, and events.

Summary of project key benefits:

Benefit 1: Enhanced collaboration of Engineering and AAO MQ, along with other FSE Schools and MQ Faculties, leading to improved education, research, and commercial outcomes.

Benefit 2: Improved efficiency of laboratories, workshops and other serviced spaces as facilities are consolidated.

Benefit 3: Reduced costs for the University from relinquishing the two leases for the School of Engineering and AAO MQ

Benefit 4: Improved student experience enabling FSE to attract and retain outstanding students and staff in Engineering and Astronomy resulting in increased retention, survey scores and rankings.

Benefit 5: Enabling AAO to deliver on national and international contracts and grow future businesses.

Benefit 6: A visible flagship building in the FSE precinct connecting MQ with industry.

Impact Measure

Eligible Category: 2.1.1 Green: Green Buildings

Eligibility Projects: New construction and/or renovation of existing buildings that have

or will receive any one of the following certifications/ratings or

demonstrate equivalent performance as listed below.

- Green Building Council of Australia (GBCA) Green Star (minimum 5

Star or above).

Impact Indicators: Green or equivalent certifications obtained.

Project Alignment:

Project	School of Engineering and Australian Astronomics Optics		
Project Description	New Construction		
Rating Tool	Green Star –Buildings v1		

Project Size (GFA)	14,400m²		
Desired rating	5.0 Star Green Star		
Rating Type	Major Refurbishment		
Space Use	Class 5/9b		
GBCA Project Registration Number	GS-8812B		
Approval date	TBD		

4.6 MUCCP STAGE 6A.2 - 18 WALLY'S WALK

PURPOSE

In accordance with Section 2.4(c) of the Macquarie University Sustainability Financing Framework (the 'Framework, this Impact Report relates to the Project as nominated in accordance with Section 2.2 of the Framework as an Eligible Project).

PROJECT OVERVIEW

18 Wally's Walk was the original University Library that has been largely underutilised since the Library relocated in 2013, being mainly used for experimental informal learning spaces, storage and some project offices. As part of the MUCCP Master Plan – Stage 6, the original intent was to fully redevelop the site, whilst retaining the original structure. Given other priority capital expenditures, a decision was made to look at an alternative strategy for the building to achieve better medium-term utilisation while also maintaining flexibility for the future.

A decision was made to create a centre for professional student and staff administration services, bringing together the Offices of Group Finance, Risk, Procurement, Human Resources, IT, Student Administration, Shared Services Centre, Marketing and Communications, in a modern sustainable working environment. The internal fitout was designed to meet 5 Star Green Star Certification. It also included the upgrade of the outward facing Student Services Centre, located on the ground floor of the building. An aligned project, though not part of this funding, was an upgrade to the external façade of the building.

The fitout is complete and the building has been operational since Jun-22.

Impact Measure

Eligible Category: 2.1.1 Green: Green Buildings

Eligibility Projects: New construction and/or renovation of existing buildings that have

or will receive any one of the following certifications/ratings or

demonstrate equivalent performance as listed below.

- Green Building Council of Australia (GBCA) Green Star (minimum 5

Star or above).

Impact Indicators: Green or equivalent certifications obtained.

Project Alignment:

Project	MUCCP Stage 6a.2 – 18 Wally's Walk				
Project Description	Refurbishment and fit out				
Rating Tool	Green Star – Interiors v1.3				
Project Size (GFA)	8,000m²				
Desired rating	5.0 Star Green Star				
Rating Type	Major Refurbishment				
Space Use	Class 5				
GBCA Project Registration Number	GS-6956I				
Approval date	TBD				

Appendix - Summary of Impact on Completed Green Star Projects

Table 7: Summary for Green Star by Project Report

Green Buildings project	Gross Floor Area (GFA)		or Primary y use ¹	Carbon reductions ¹			Solar generated kWh ¹	Solar Installed kW	Certification
		kWh/m2 of GFA p.a. ³	% of energy use reduced ²	kgCO2/m2 of GFA pa.	CO2 T equiv. reduced pa.	% of carbon emissions reduced ²			
1CC	15,400	155.82	34%	75.45	777	40%	656,317	300	
R1/R2	11,950	68.94	32%	28.35	279	45%	250,346	200	Design & As
Lincoln	2,570	91.91	47%	59.90	144	48%	30,971	40	Built v 1.2
Total	29,920	115.63	35%	55.30	1,200	42%	937,634	540	

Notes for above table:

- 1. Above figures use calculations from Green Star energy modelling.
- 2. Percentage reductions are from reference buildings used in Green Star inclusive of behind the meter solar.
- 3. Energy use includes natural gas and electricity.
- 4. Above table exclude the renewable electricity contract supplying the campus (if you included the PPA the precinct would have a combined carbon reduction of 88%).



