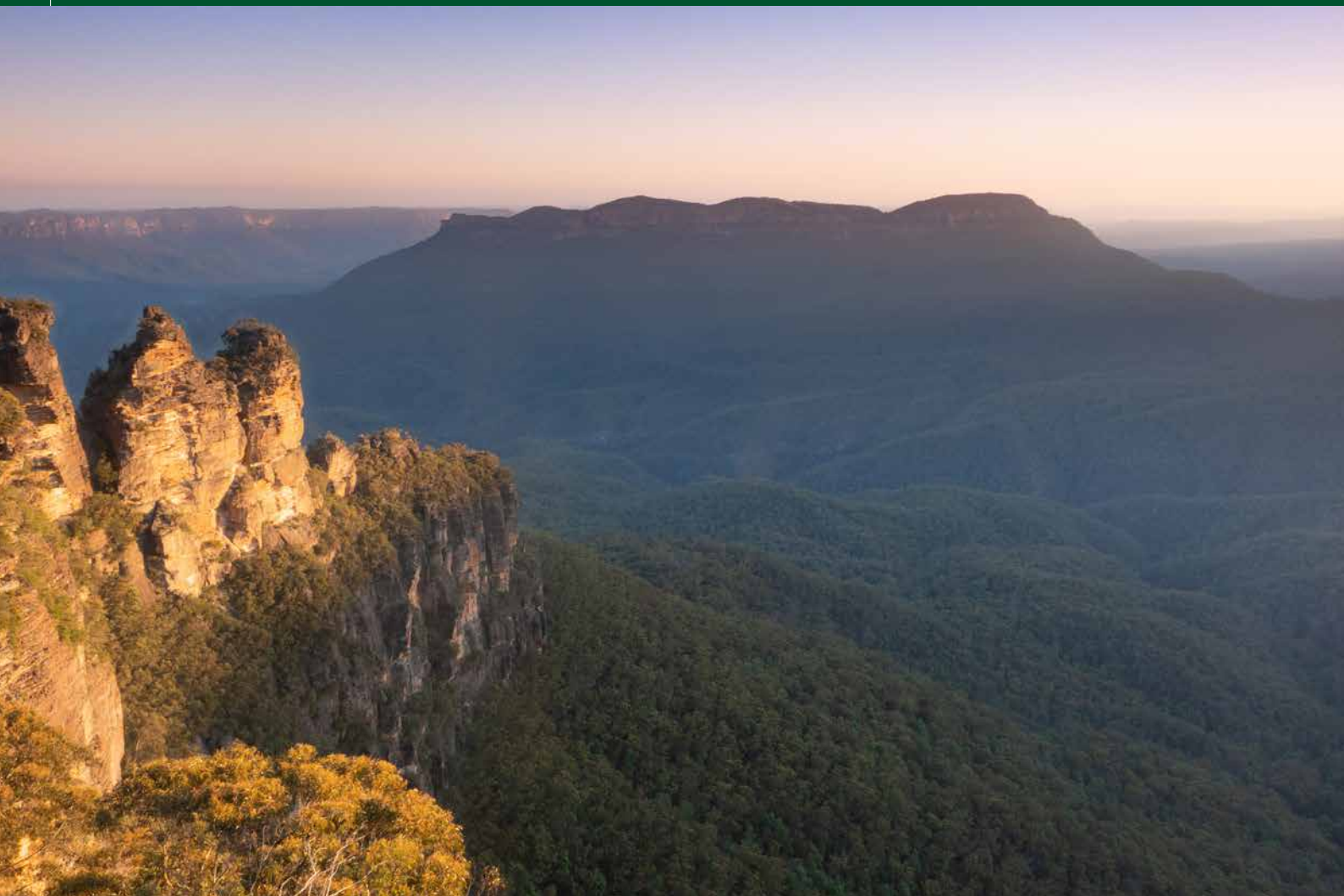


Nepean Blue Mountains
Local Health District



Sustainability Plan

2024-2028





The Nepean Blue Mountains Local Health District acknowledges the traditional custodians of the lands and waterways within its boundaries including the Darug, the Gundungurra and the Wiradjuri people.

We acknowledge and pay respects to Elders past and present.

We extend that respect to our local Aboriginal community and staff. We celebrate their strength and enduring connection to culture.

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Introduction



A Message from the Chief Executive

Lee Gregory,
NBMLHD Chief Executive

Nepean Blue Mountains Local Health District (NBMLHD) has faced many challenges since the first Sustainability Plan started in 2019. Climate risk has become a reality, starting with the 2019/20 bushfires, followed by severe flooding from two La Niña events and other major storms.

NBMLHD continues to deliver sustainable health care to ensure our readiness for the impacts from predicted climate change and to do our part in working towards net zero carbon emissions.

Despite these challenges, we have been able to achieve the aims of the first Sustainability Plan and establish a Sustainability Portal and a committed governance framework to guide our sustainability journey.

The Sustainability Portal on the intranet provides a space for information sharing and updates to staff on what has been achieved across NBMLHD to date.

The committed members of the Working Groups have enabled key initiatives to be implemented including:

- Completing a draft climate risk assessment for facilities and services.
- Completing a Carbon Footprinting Project at Nepean Hospital.
- Achieving a 4-Star Green Star As-Built Design rating for Stage 1 Nepean Hospital Redevelopment.
- Roll out of the Energy Performance Contract which has seen the installation of solar, LED lighting and mechanical upgrades that improve energy efficiency across five of our facilities.

NSW Health and Government are constantly moving towards more sustainable outcomes. Future Health has a specific focus on ensuring the health system is managed sustainably. A dedicated Climate Risk and Net Zero Unit now sits within the Ministry of Health. This focus will support the direction and initiatives we aspire to locally.

Our work is recognised by other agencies across the Country. It sets NBMLHD up to be ready for opportunities that will become available over the next five years including new initiatives and collaborations.

There is a great deal of work to do, and I support the efforts and roles of our Sustainability Committee, dedicated Working Groups and our staff.

Lee Gregory

Lee Gregory,
NBMLHD Chief Executive

About our District



Nepean Blue Mountains Local Health District sits on the lands of the Darug, Gundungurra and Wiradjuri nations.

With a broad geographical spread, the District has diverse land use, from urban to semi-rural and rural areas as well as National Parks, State forests and flood plains. Penrith is the main regional city with other towns including Katoomba, Lithgow and Windsor/Richmond.

We provide health services across the region through our five hospitals at Nepean, Katoomba, Springwood, Hawkebsury and Lithgow, nine Community Health Centres, oral health and mental health services, and aged care through Portland Tabulam Health Centre.

In the future, the intensity, duration and frequency of extreme weather events are projected to increase. Locations in our District will experience a greater number of very hot days (above 35°C) with longer and more frequent warm spells, increasingly harsh fire conditions, increased intensity of rainfall and long-term decreases in rain during winter associated with drought.

We will need to adapt to climate change impacts as severe events become increasingly normal. Our Sustainability Plan will help us to face these challenges and continue delivering high quality care.

387,000

residents across
9,179km²

7.3%

projected population
growth by 2032

56%

of residents live in the
Penrith LGA

4.7%

of population are
Aboriginal

14%

speak a language other
than English

21,410

surgeries

1,266,961

community and outpatient
occasions of service

139,924

presentations to the
emergency department

Our vision

Delivering environmentally sustainable healthcare now and for the future

At NBMLHD, we will achieve our vision of Together, Achieving Better Health for this and future generations without placing additional burden on our available finances, our community or our local environment.

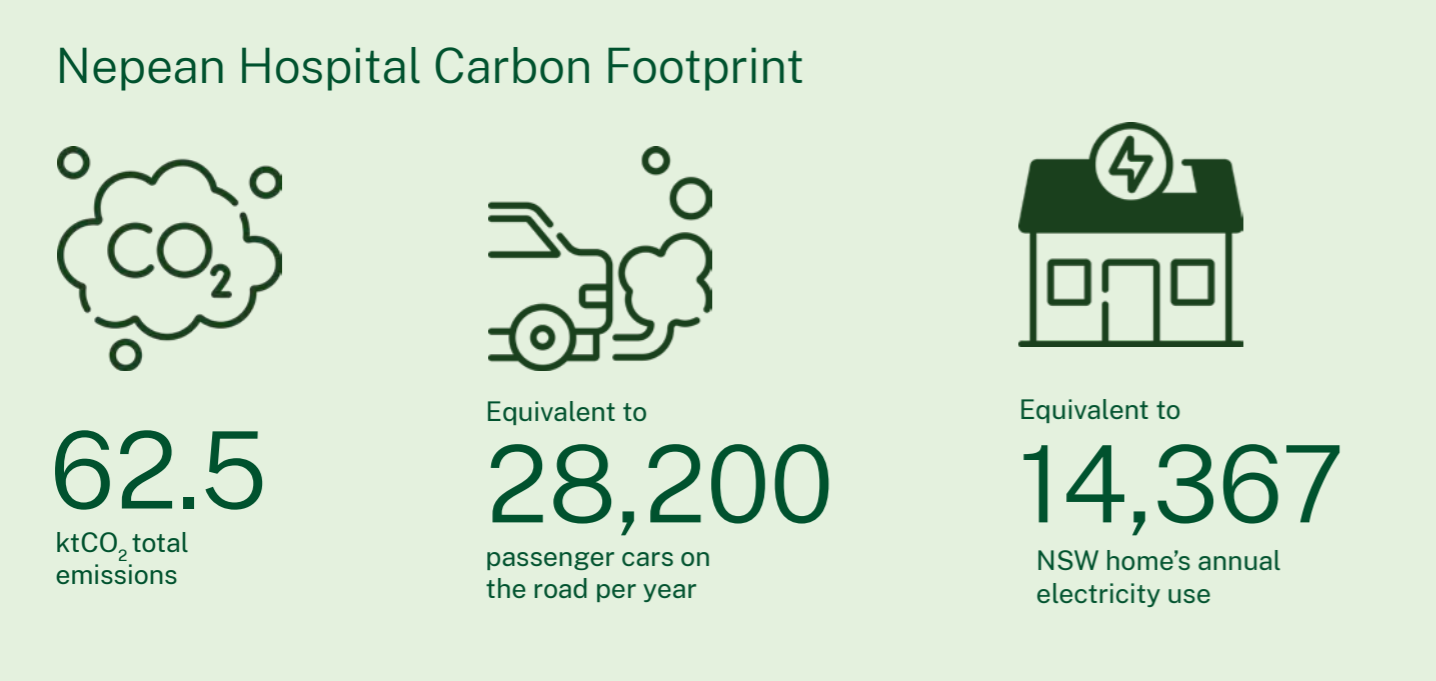
Our key priorities are:

- Climate Resilience
- Working Towards Net Zero
- Committing to Resource Efficiency



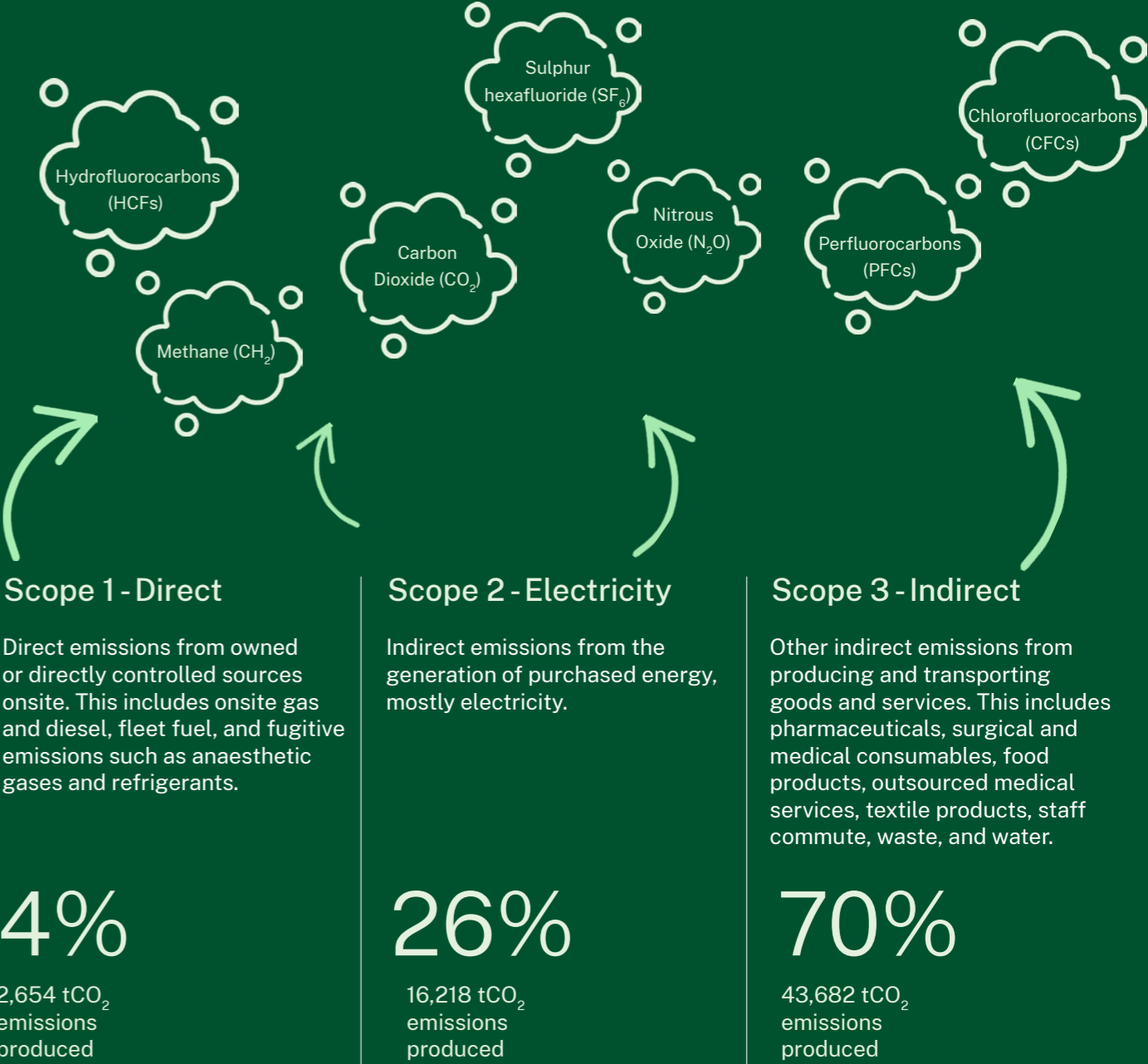
Our carbon footprint

In 2022 Nepean Hospital was selected as the metro pilot site for a NSW Health carbon footprinting project. The outcomes of this project will be used to understand the carbon footprint of healthcare delivery across the District and the State.



Green House Gases

The Green House Gas Protocol covers the accounting of seven greenhouse gases and provides a carbon emissions equivalent rating known as CO₂e to support international comparison and transparency.



Waste

A report by NSW Circular has found NSW hospitals could save \$2-3 million every year, by recycling 40 to 60 percent of clinical plastic waste alone.

Waste

Plastic waste is a major concern as most plastic items never fully disappear; they just break down into smaller pieces called microplastics. Microplastics can enter the human body through inhalation and absorption and accumulate in organs. Microplastics have been found in our lungs, livers, spleens and kidneys. The full extent of the impact on human health is still unknown. There is, however, substantial evidence that plastics-associated chemicals, such as methyl mercury, plasticisers and flame retardants, can enter the body and are linked to health concerns.

Circular Economy

Circular Economy deals with more than just managing waste at the end of a product's life known as Cradle to Grave. It considers the life cycle analysis of the product, from the extraction of raw materials, manufacturing, transportation, use and end of life reusability back into the system known as Cradle to Cradle.

Appropriate disposal of plastics was added to the product stewardship priority list in 2022/23. The development, design, manufacture, import, sale, use and recovery of materials and products need to be assessed and adjusted to improve environmental outcomes.

NBMLHD recognises the value of the resources currently ending up in landfill. Reducing, reusing and recycling reduces energy usage, the consumption of raw materials, air and water pollution and greenhouse gas emissions, it also achieves cost savings, as a significant percentage of waste can be diverted from landfill to recycling at a lower cost.

Healthcare services in NSW generate significant amounts of waste per year.

52,000

tonnes per annum in waste

\$16m

in waste disposal fees

9.9%

is clinical waste

69.8%

is general waste

17.9%

is recycled



Sustainability Highlights

Nepean Blue Mountains Local Health District continues to improve our approach to sustainability.

We have:

- Completed Climate Risk Ready Stage 1: District-wide climate risk assessment in 2022/23.
- Received Silver for Climate Leadership in 2022 as part of Global Green and Healthy Hospitals Climate Challenge Awards.
- Partnered with Sydney Science Park STEM (Science, Technology, Engineering, Maths) Schools challenge mentorship in 2023.
- Developed a staff Sustainability Portal to celebrate the great sustainability initiatives across the organisation by our engaged staff; provide access to training opportunities, research, news and events; and an overview of the work done by the Sustainability Committee and Working Groups.
- Established an Environmental Sustainability Office to support implementation of the Sustainability Plan.
- Relocated Nepean Hospital's Reconciliation Garden to a prominent campus location.
- Established a native bush garden at Lithgow Hospital creating a tranquil and healing space using plants with therapeutic benefits.
- Delivered on outdoor spaces for staff, patients and visitors during the Stage 1 Nepean Hospital Redevelopment.
- Installed 2,242 Solar Photovoltaic (PV) panels.
- Completed 12,000 lighting upgrades to LED.
- Implemented building analytics software and mechanical upgrades.
- Reduced annual site energy by 18% and generated over 1,000 MWh from solar PV. Savings represent 3,500 t CO₂e and \$690K each year.
- Achieved a 4-star equivalent green star as-built design rating associated with Nepean Redevelopment Stage 1.
- Identified sustainable opportunities for Stage 2 Nepean Redevelopment to achieve 5-star equivalent green star as-built design rating.
- Partnered with NSW Pathology and participated in the International Freezer Challenge to identify energy efficiency in cold storage management.
- Reduced usage of Desflurane.
- Established a Climate Crew and Net Zero Clinical Leads Programs.
- Held the inaugural Sustainability Research Roundtable with Universities and other partners.
- Implemented Virtual Healthcare Interpreter Service for Women and Childrens Outpatients saving 5 t CO₂e each year.
- Successfully implemented a Preoperative Education and Prehabilitation Program Virtual Care model saving 53.2 t CO₂e each year and \$4,785.55 per person from reduced length of stay and patient travel.
- Exceeded NSW Government target of 10% of fleet passenger vehicles are hybrid, with 81% of NBMLHD fleet passenger vehicles now hybrid.
- Installed Telematics across fleet to support fleet optimisation.
- Developed a Nepean Green Travel Plan.
- Completed a staff travel survey.
- Reduced 12,475 kg of food waste from landfill, saving \$5,832 and 1,900 kg CO₂e per tonne.
- Recycled printer cartridges avoiding 261.6 kg landfill.
- Implemented cardboard containers for Needle and Syringe Program fit packs diverting 3,792 kg from landfill and 16,049 kgCO₂e pa and saving \$208K per year.
- Recycled up to 650L of foam per week from Pathology.
- Separated laminate and paper dental waste to enable recycling.
- Purchased a waste baler to compress soft plastics and reduce volume for recycling.
- Ensured compliance in NSW Government Single Use Plastics Ban.



12,475kg
of food waste diverted from landfill



4 star
equivalent green star as-built design rating achieved for Nepean Redevelopment



81%
of fleet passenger vehicles now hybrid



2,242
solar panels installed



12,000
lighting upgrades to LED completed



16,049kg CO₂e
saved using cardboard containers for Needle and Syringe fit packs.

Future Directions

2

Sustainability Plan Snapshot

Our Sustainability Committee has identified 6 key focus areas relating to our key priorities: Climate Resilience, Working Towards Net Zero, and Committing to Resource Efficiency.



Climate Risk and Adaptation

Be prepared for the impacts of climate change including the impacts to the health of our community and our ability to maintain service delivery.



Caring for Country

Provide outdoor spaces that are climate resilient, support biodiversity, improve health outcomes and showcase the healing power of plants.



Sustainable Facilities

Work towards achieving a 70% cut in carbon emissions by 2035 and Net Zero by 2050 or earlier.



Sustainable Clinical Care

Develop and implement sustainable clinical models of care that reduce carbon emissions, waste and harmful anaesthetic gases.



Green Travel

Optimise fleet passenger vehicles and transition to electric vehicles (EV).

Encourage staff and visitors to engage in active and public transport options towards a healthier community and net zero targets.



Waste and Circular Economy

Reduce the amount of waste disposed to landfill by a minimum of 5% pa.

Develop circular economy procurement strategies to improve life-cycle analysis and create Cradle to Cradle opportunities.





Climate Risk and Adaptation

Target

Be prepared for the impacts of climate change including the impacts to the health of our community and our ability maintain service delivery.

Our initiatives

- Complete Stage 2 of Climate Risk Ready project:
 - Analyse adaptation actions and develop an implementation plan by 2025.
 - Complete a buildings risk and vulnerability assessment to inform Asset Management Plans and other planning processes by 2026.
 - Embed Climate Change as a risk category in decision-making processes by 2025.



Caring for Country

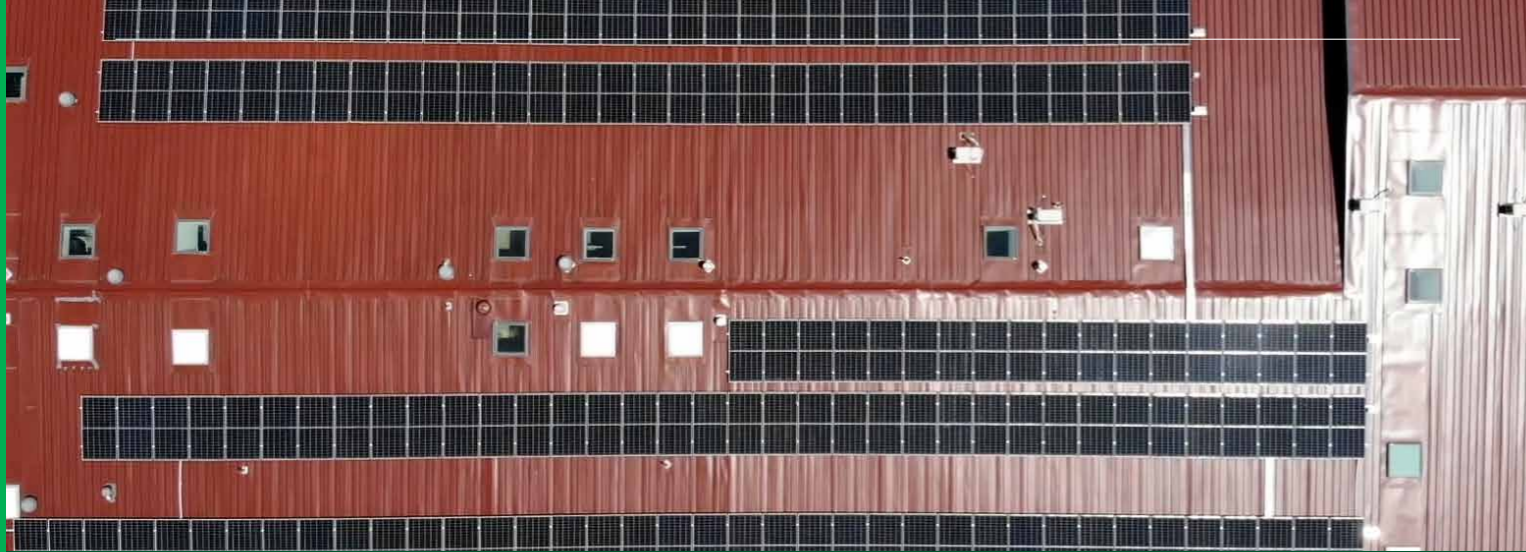
Target

Provide outdoor spaces that are climate resilient, support biodiversity, improve health outcomes and showcase the healing power of plants.

Our initiatives

- Seeding climate resilient gardens for patients, visitors and staff by 2028, focused on:
 - regeneration of native biodiversity
 - native food gardens
 - creating cooler campuses
- Install water retention tanks for water conservation and identify opportunities for recycling water by 2026.





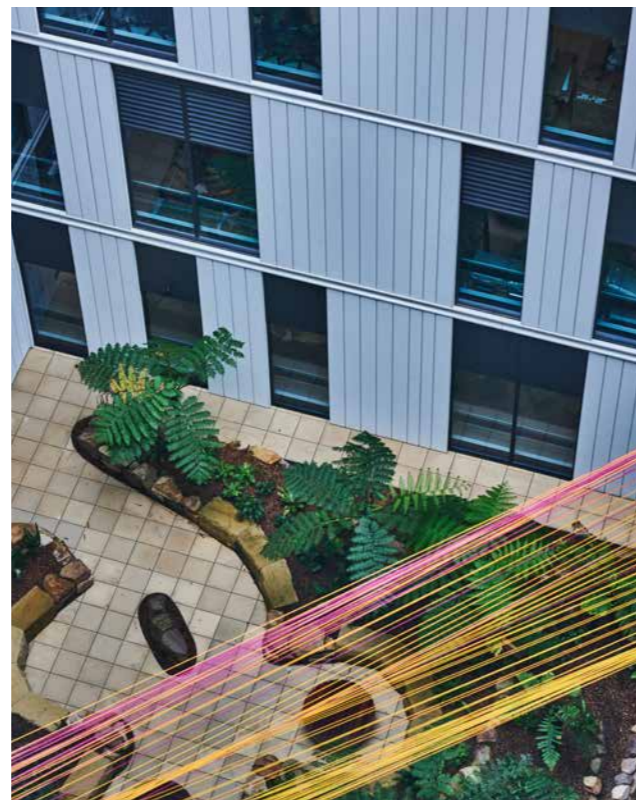
Sustainable Facilities

Target

Work towards achieving a 70% cut in carbon emissions by 2035 and Net Zero by 2050 or earlier.

Our initiatives

- Complete delivery of the Energy Performance Contract activities by 2024.
- Develop District-wide net zero pathway aligned to Ministry of Health standards by 2025.
- Identify ways of reducing energy by monitoring building management systems by 2025/26.
- Install electric vehicle infrastructure at local Community Health Centres across NBMLHD
- Achieve a 5-star equivalent green star as built design rating for Stage 2 Nepean Redevelopment.
- Audit the integrity of Nitrous Oxide infrastructure aimed at reducing leaks by 2025/26.



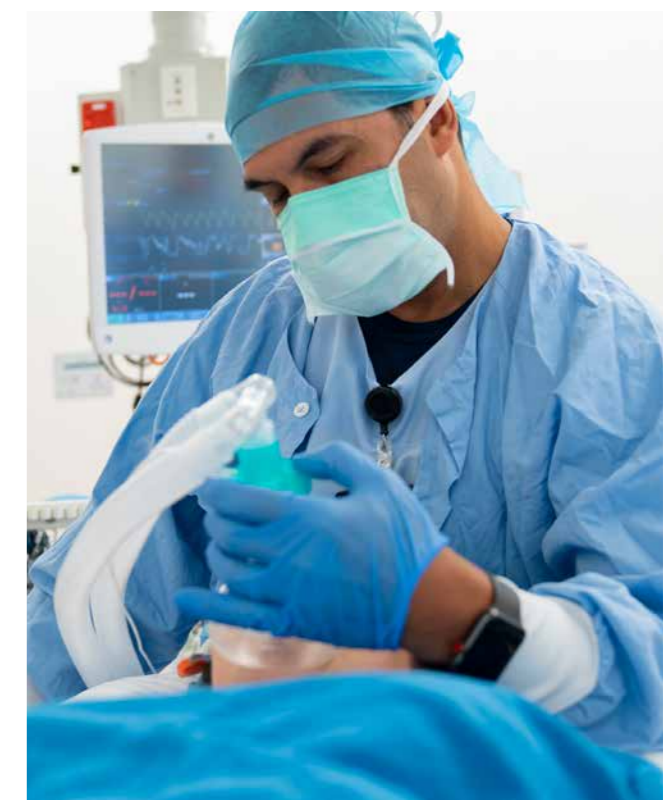
Sustainable Clinical Care

Target

Develop and implement sustainable clinical models of care that reduce carbon emissions, waste and harmful anaesthetic gases.

Our initiatives

- Restrict access to Desflurane by 2024.
- Achieve Green Lab certification at Nepean NSW Health Pathology.
- Achieve Green certification at Nepean Hospital Emergency Department.





Green Travel

Target

Optimise fleet passenger vehicles and transition to electric vehicles (EV).

Encourage staff and visitors to engage in active and public transport options towards a healthier community and Net Zero targets.

Our initiatives

- Reduce passenger fleet vehicles by 20% in 2024.
- Reduce total passenger fleet operational costs by 3% pa.
- Establish EV fleet pilot within NBMLHD by 2025/26.
- Implement the Nepean Green Travel Plan including:
 - Developing a travel access guide for staff and community by 2024.
 - Delivering accessible End of Trip Facilities as part of Stage 2 Nepean Redevelopment.
- Developing and implementing Green Travel Plans for other facilities and Community Health Centres by 2026/27.



Waste and Circular Economy

Target

Reduce the amount of waste disposed to landfill by a minimum of 5% pa.

Develop circular economy procurement strategies to improve life-cycle analysis and create Cradle to Cradle opportunities.

Our initiatives

- Complete a waste audit at Nepean Hospital by 2025.
- Develop a roadmap for procurement and waste management strategies to meet waste reduction targets by 2025.
- Introduce:
 - reusable baby bottles at Nepean Hospital
 - battery recycling District-wide
 - reusable patient transfer (slide) sheets
- Participate in circular economy processes and practices in partnership with HealthShare and NSW Health.
- Identify list of approved vendors committed to circular economy when engaging in procurement.



Governance

Our approach to sustainable healthcare aligns to key state and local strategies and is supported by dedicated working groups across NBMLHD.

Our Sustainability Committee oversees the delivery of the Sustainability Plan 2024-28. Together with dedicated working groups for each focus area, and leadership from the Environmental Sustainability Office, the commitments set out are aimed at meeting or exceeding key performance indicators and the strategic direction set by NSW Health.

The Sustainability Committee will report progress against our commitments to the Executive and Finance, Planning and Performance Board Sub-Committee with annual updates to the Sustainability Plan. The following key state and local publications guide NBMLHD towards delivering environmentally sustainable healthcare now and into the future.

NSW Health Future Health Strategic Framework

Strategic Outcome 6: The health system is managed sustainably - Commit to an environmentally sustainable footprint for future health care

NBMLHD Strategic Plan 2024-2028

6.2 Commit to an environmentally sustainable footprint for future health care

- 6.2.1 Implement our Sustainability Plan
- 6.2.2 Undertake climate change risk assessments and respond to identified issues

Service Level Agreement - Key Performance Indicators (SLA-KPI)

1. Decreased use of Desflurane, measured by number of vials of Desflurane purchased as percent of all volatile anaesthetic vials purchased by 4%. (KPI23-004)
2. Nitrous Oxide Emissions Reduction of 5% Per Admitted Patient Service Event by addressing leaks, decommissioning sections of piping, and/or converting to mobile nitrous cylinders (where appropriate rather than older manifolds and piping). (KPI23-005)

3. Waste Streams - Resource Recovery and Diversion from Landfill - Reduce the amount of waste disposed to landfill by increasing the amount of waste diverted to non-landfill disposal by a minimum of 5% per annum compared to the previous reporting period. (KPI23-006)
4. Energy Use Avoided Through Energy Efficiency and Renewable Energy Project Implementation (1.5%PA). (KPI23-007)
5. Implement fleet optimisation strategies to reduce the total passenger fleet operational costs by 3% compared to the baseline of total fleet operational costs of the previous financial year. (KPI23-008)

NSW Government Resource Efficiency Policy (GREP) 2019

NBMLHD currently meets or exceeds all GREP targets.

Be involved in the delivery of our sustainability initiatives:



Timeline to achieve NSW Net Zero and Waste targets

2025	Phase out problematic and unnecessary plastic.
2026	Achieve 50% NSW Government passenger vehicle fleet electrification.
2030	Evidence 50% emissions reduction on 2005 levels. Achieve a 100% NSW Government passenger vehicle fleet electrification. Deliver on an 80% average recovery from all waste streams. Halve the amount of organic waste sent to landfill.
2035	Evidence 70% emissions reduction on 2005 levels.
2050	Achieve Net Zero. Significantly increase the use of recycled content by governments and industry (no timeline).

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