Western NSW Local Health District

Environmental Sustainability Strategy 2023 - 2027

Acknowledgement of Country

Western NSW Local Health District acknowledges the Traditional Custodians of the Country where we work and live. We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

We pay our respects to Elders past, present and emerging and acknowledge the Aboriginal and Torres Strait Islander people that contributed to the development of this Environmental Sustainability Strategy.

We advise this resource may contain images, or names of deceased persons in photographs or historical content.

Environmental Sustainability Strategy

Published by Planning and Service Development

https://wnswlhd.health.nsw.gov.au/

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Contents

Foreword

Climate change and its direct and indirect impacts on health are a growing challenge recognised at State, Commonwealth and global levels. People in Western NSW have witnessed firsthand how climate change can devastate communities through unprecedented rain events, floods, droughts and bushfires, and their associated illness, disease, and disease injury. Current projections show that temperatures will keep rising, rainfall patterns will continue to change, and fire weather will increase[1]. State, national and international governments have set emissions reduction targets to increase the likelihood of a best-case global warming scenario.

Tackling climate change is underpinned by a need to understand emissions footprints better. Health care is now recognised as a significant contributor to climate change[2,3], contributing 7% of all greenhouse gas emissions to Australia's carbon footprint[4].

In 2022 Western NSW Local Health District (the District) undertook a carbon footprinting exercise, calculating a total footprint of at least 138.3 kt CO2 per year[5], a value equivalent to the yearly emissions of 30,000 passenger vehicles[6]. Whilst health facilities consume significant energy resources, the healthcare supply chain contributes to over 75 per cent of WNSWLHD's emissions. This includes producing, transporting, using and disposing of goods and services, such as pharmaceuticals, food, medical devices, hospital equipment, and instruments.

There is an urgent need to take action to reduce the impact of health services emissions on the climate and prepare District staff, operations and infrastructure for future challenges. Yet an opportunity is also presented to tackle this challenge whilst improving the quality of care, improving the population's health, and achieving economic benefits through a more efficient health system.

Our Plan

The Western NSW Local Health District Environmental Sustainability Strategy 2023-2027 (the Strategy or ESS) outlines a commitment to the NSW Government's Net Zero Plan[7] to reduce emissions while growing the Economy. The Strategy builds on the vision within the WNSWLHD Strategic Plan, **healthier rural people and thriving communities**, recognising this cannot be achieved without an **equally thriving and healthy environment**.

The Strategy acknowledges the challenges underpinning health outcomes and healthcare delivery in the region and recognises that climate change may exacerbate existing health inequalities in rural communities. It also recognises the exemplary work already underway by dedicated and passionate staff within the District to minimise environmental impact.

In 2022 a District Resource Efficiency Strategy (DRES) was released to deliver improved sustainability and operational cost savings through improved resource efficiency of our operations. While it has already gone some way to mitigating the adverse effects of our activity on the environment, a broader remit is required to address the remaining 76% of emissions and move us towards the NSW government commitment to achieving net zero emissions by 2050[5].

The Environmental Sustainability Strategy 2023 – 2027 outlines a roadmap towards best practices in environmental sustainability in health service delivery over the next five years. It defines commitments, targets and activities across six key priority areas: **Clinical Care, Products and Services, Waste, Resources, Infrastructure and Transport** and details supporting enablers.

The Strategy has been drafted based on key local, state and national policy directions, passionate feedback from staff and community champions through a survey and best practice evidence on health care and climate change.

The first months and years of the Strategy will be about setting up the supporting structures to drive the success and change in the Strategy and identify carbon hotspots. There will be a focus on the rapid reduction of emissions from energy use and transport and the process of building and scaling success stories to address the healthcare supply chain, including changes in practice and new and innovative models of care. By taking a holistic approach, the District aims to reduce waste and environmental footprint while improving the health of our staff and community and contributing to a safer and more socially responsible supply chain.

Our Vision

Healthy environment healthier rural people

Our Goals

Keeping people healthy
High value, low carbon health care
Minimise health service emissions
Climate resilient health service

Our Net Zero Targets

- 50% reduction in emissions by 2030
- 70% reduction by 2035
- Net zero carbon emissions by 2050*

Compared to 2020/2021 levels

Our vision is a healthy environment for healthier rural people

Western NSW Local Health District respects and protects the land, sky, and waterways in which we operate to provide a ***healthy environment for healthier rural people****.*

We will lead by example, supporting the NSW Government's Net Zero Plan to progress environmentally sustainable activities and initiatives to reduce our carbon footprint while delivering world-class and sustainable rural healthcare ready to adapt to climate challenges.

Our goals for environmental sustainability are to keep people healthy, provide high value and low carbon healthcare, minimize health service emissions, and build a climate resilient health service.

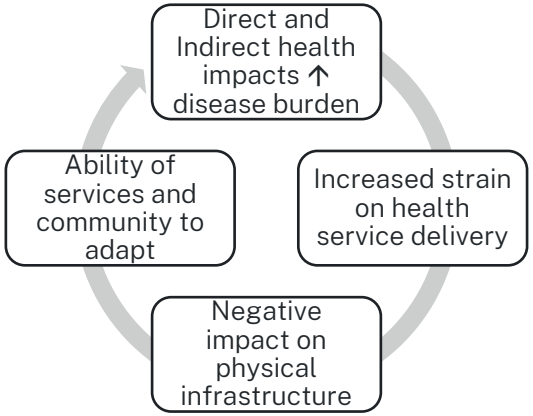
Why a healthy environment for healthier rural people?

Western NSW Local Health District provides health services across one of the largest areas in NSW, covering 246,676 square kilometres. As a health service provider, the District is also considered a significant contributor to carbon emissions[5], with a carbon footprint estimated to be greater than the entire nation of Vanuatu[8].

Western NSW LHD acknowledges the growing need for action to address both the health impacts of climate change and the impact of healthcare systems on Australia's carbon footprint.

We must take steps to ensure the District meets NSW net zero targets and is at the forefront of sustainability in the rural healthcare sector.

There are four anticipated areas of risk as a result of climate change:



Our services:

38 inpatient facilities

50 community health centres

470 buildings

Our service utilisation*:

238,888 ED presentations

85,236 Admissions into facilities

235,157 Occupied bed days

Figure 1 Map of the LHD

Climate change projections in our region

- Maximum temperatures to increase in the near future by 0.4 – 1.0°C, and far future by 1.8 – 2.7°C
- The number of hot days over 35 degrees will increase by 9 days in the near future to an additional 27 days by 2070
- Rainfall will decrease in spring in the near future particularly around Parkes, Forbes and Cowra with a -10 to -20% rainfall reduction
- Rainfall is projected to increase in autumn on average across the region by 5 to 10%

Severe fire weather will increase in summer, spring and winter with an additional 3.5 days of extreme fire weather per year.[1]

Our Carbon footprint*

138.3 kt CO_2 emissions produced* [5]

> **6.4** million trees are required to offset one year of current emissions

7644 Households worth of energy used annually

Green House Gas protocol emissions breakdown

Scope 1: 1.76 kt CO_2-e
direct from health facilities and vehicles

Scope 2: 30.3 kt CO_2-e
indirect from purchased energy sources

Scope 3: 106.2 CO_2-e
indirect from health care supply chain

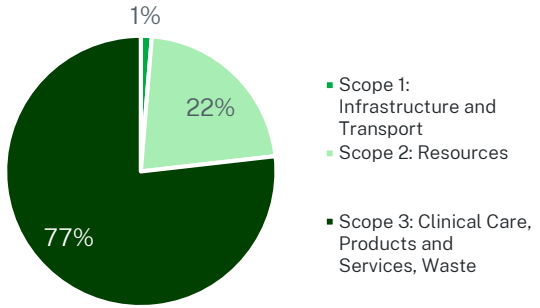


Figure 2 Greenhouse gas emissions breakdown for WNSWLHD *2020/2021

Our environmental performance – Resources, Transport and Waste

WNSWLHD reports on energy and water consumption, waste generation and fleet transport as per the NSW Government Resource Efficiency Policy. The below tables provide a summary over the past three or four financial years.

ENERGY CONSUMPTION	2018/19	2019/20	2020/21	2021/22	
Electricity (MWh)	37,092	39,429	40,537	39,734	↑
Cost (m)	$7.24	$7.69	$7.71	$7.52	↑
Natural gas (GJ)	81,065	126,820	106,029	90,409	↑
Cost (m)	$1.29	$2.07	$1.43	$1.68	↑
LPG (GJ)	33,945	12,975	12,208	12,869	↓
Cost (m)	$0.29	$0.24	$0.24	$0.24	→
Electricity (MWh) per 1000 bed days	84	91	92	92	↑
Natural gas (GJ) per 1000 bed days	184	294	240	210	↑

WATER CONSUMPTION	2018/19	2019/20	2020/21	2021/22	
Total potable water consumption (Kl)	332,172	323,369	297,190	225,786	↓
Water consumption (Kl) per 1000 bed days	752	749	673	524	↓
Resource cost (m)	$1.33	$1.75	$1.6	$1.16	↓

FLEET	2019/20	2020/21	2021/22	
Total fuel consumption (lt)	816,199	766,456	667,426	↓
Efficiency (lt/100km)	9.61	9.15	8.81	↓
Total fleet	575	567	570	→
Hybrid Vehicles	49	142	219	↑
Electric Vehicles	0	0	0	→

WASTE GENERATION	2019/20	2020/21	2021/22	
Clinical waste (t)	110	123	107	↓
General waste (t)	751	1051	963	↓
Recycled waste (t)	106	142	80	↓
Clinical - *Sharps, cytotoxic, biological pharmaceutical etc* (t)	46	65	63	↑
Total tonnes	1098	1628	1415	↑
Waste consumption (tonnes) per 1000 bed days	2.5	3.7	3.3	↑
Waste Cost (clinical, general, pharmaceutical)	$388,627	$408,155	$468,456	↑

Strategic Drivers

The Western NSW LHD Environmental Sustainability Strategy has been developed based on key state, national and local policy directions and initiatives. It incorporates best practice evidence on health care and climate change. Some of the relevant policy context is summarised below.

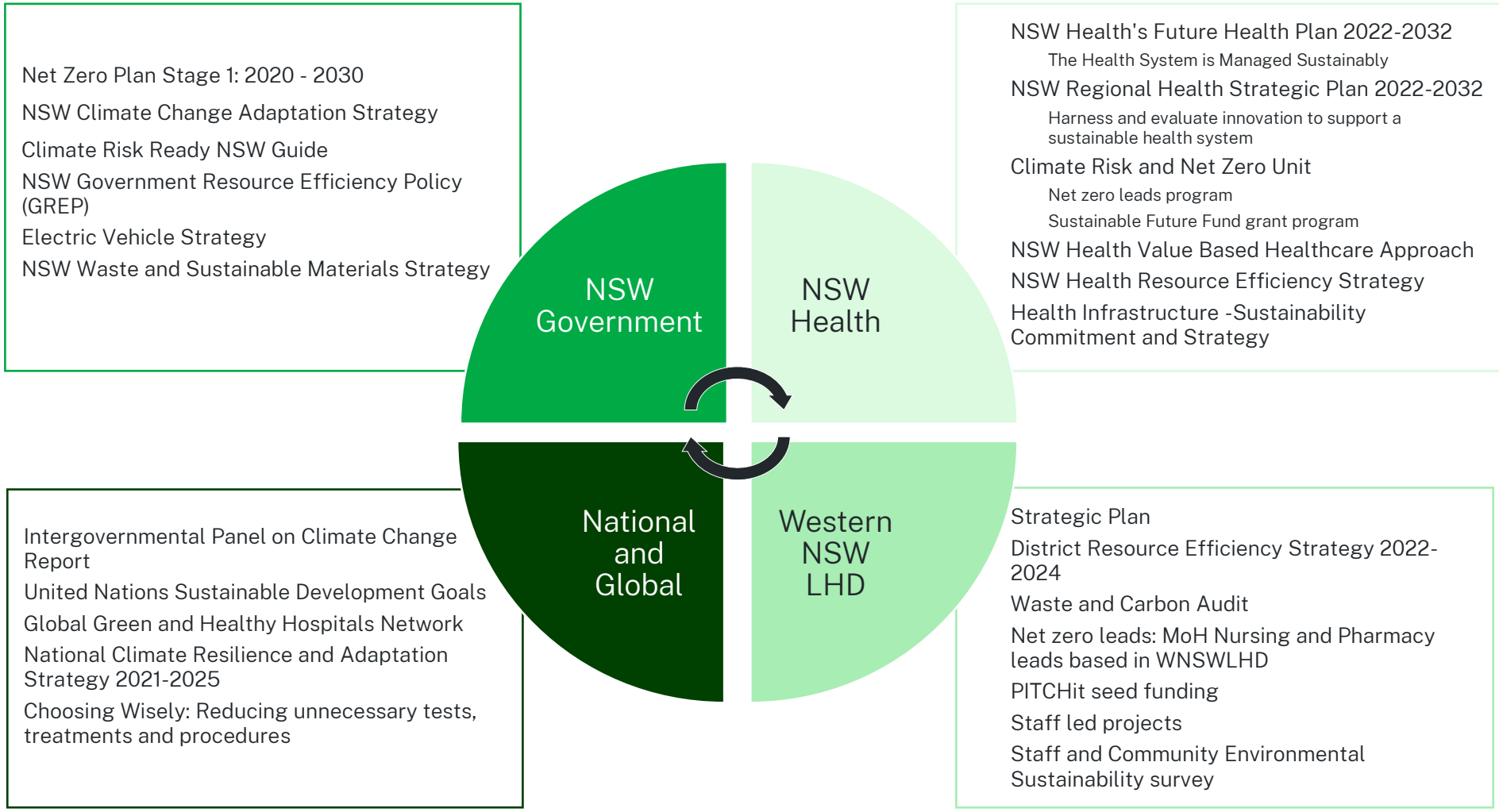


Figure 4 Strategic drivers for the strategy

Sustainability in action

WNSWLHD has already begun sustainability action in clinical areas and health service operations. The Environmental Sustainability Strategy (ESS) will build on past achievements while aspiring to meet current and future challenges.

Highlights to date include:

Solar power

In 2023 14/38 hospitals have solar

6 other buildings have solar (CHC and offices)

$921,504 currently saved annually from energy bills

1.5 kt CO2-emissions saved through solar energy

Energy efficient LED lighting

Over 21K light fittings replaced so far

Over $1 M savings in energy use annually

Staff recycling single-use metal instruments

Staff at Parkes Hospital have rescued over 128 kg of Single Use Medical Instruments (SUMI) in just under 2 years. These are recycled for scrap metal or stainless steel recycling.

Repurposing equipment

In 2022 over 10 tonnes of unused equipment was diverted from landfill at Bathurst and Orange Hospitals

Reducing carbon hotspots in Clinical Care

The WNSWLHD will work towards phasing out Desflourane use by 2024.

This will go some way to reducing the carbon footprint of Anaesthetic gases which make up 5% of a hospitals total footprint.

Reducing transport footprint

241/453 total fleet (53%) are now Hybrid

Almost 10% improvement in fuel efficiency

Western NSW LHD Environmental Sustainability Strategy: Plan on a page

Western NSW LHD respects and protects the land, sky, and waterways in which we operate to provide a **healthy environment for healthier rural people**.

We will lead by example, supporting the NSW Governments Net Zero Plan to progress environmentally sustainable activities and initiatives to reduce our carbon footprint while delivering world-class and sustainable rural healthcare ready to adapt to climate challenges.

Our **Goals** are: Keeping people healthy, High value, low carbon health care, Minimise health service emissions, Climate resilient health service

Our **overarching target** is net zero carbon emissions by 2050, with a 50% reduction target by 2030 and a 75% reduction target by 2035

Priorities:

	Clinical Care	Products and Services	Waste	Resources	Infrastructure	Transport
Outcome	Sustainable clinical care provision that identifies, and reduces environmental impact	Cleaner and more socially responsible products, services and supply chains	Sustainable healthcare waste management	Sustainable, reliable, and affordable energy and water resource efficiency systems	Environmentally sustainable building design, construction and operation	Reduced vehicle emissions
Strategies	1. Clinical service design, planning and evaluation includes environmental impact and sustainability considerations 2. Incorporate environmental sustainability measures when evaluating Clinical services 3. The workforce is supported to develop skills and knowledge to understand, measure, monitor and improve the environmental footprint of healthcare delivery 4. Health care provision is optimised via a Value-based approach to reduce clinical practices that contribute to climate change, while improving outcomes and quality of life	1. Adopting sustainable procurement practices within the LHD to enable the sustainable order and use of: • pharmaceuticals • consumables • chemicals • food • electronics 2. Work with Procurement partners including eHealth NSW and HealthShare NSW regarding sustainability in procurement of high value or contract goods and services 3. Develop policies and practices to support low-carbon movement of goods and services.	1. Follow waste hierarchy to conserve resources and minimise waste going to landfill. 2. Sustainable waste management of food waste 3. Safe and sustainable disposal of pharmaceuticals.	1. Monitor and improve the sustainability and efficiency of existing assets within the constraints of the age and condition of the asset and budget 2. Provide efficient, sustainable and fit-for-purpose new infrastructure and equipment 3. Use alternative energy and water sources.	1. New facility builds and redevelopments are underpinned by sustainable building practices and design to achieve carbon neutral targets 2. All new buildings will meet environmental sustainability targets including highest possible rating using best practice rating tools 3. Integrate and offset health facilities with nature to protect our natural environment.	1. Move fleet vehicles to electric vehicles (EV) and implement e-charging stations 2. Improve and reduce the footprint of patient transport 3. Promote and enable active travel for both staff and visitors 4. Implement car-pooling strategies and use of technology to reduce staff travel footprint. 5. Encourage sustainable travel, accommodation and flights.

Enablers:

Aboriginal Environmental Stewardship	Measurement and Evaluation	Health promotion and disease prevention	Leadership and Governance	Resilience, adaption and offsetting

Priorities

Clinical Care

Provision of Clinical Care is estimated to account for most of the Health Care's total emissions. How health care is delivered impacts the **Products and Services** used during care (i.e. medical devices, consumables, and pharmaceuticals), the **Waste** generated, the **Resources** consumed by facilities and **Transport** of patients across the region.

More data is needed to understand the carbon footprint of healthcare provision and guide opportunities to improve this. However, a clear opportunity to improve sustainability is identifying and addressing known hotspots, such as anaesthetics gases, and reducing practices contributing to climate change.

Low-value care is a significant source of negative environmental impact, as is the preventable escalation of care [21]. Low-value healthcare provides little value or may even harm consumers and is estimated to be as much as 30% of healthcare. To reduce this impact, health services must prioritise efficient, effective evidence-based care delivery at the right time and setting to prevent escalation of care or low-value care. This will require changes and innovations across every service and every specialty to improve our patient and environmental outcomes.

Current performance:

- 76.8% (106.2 CO2-e) of all emissions are scope 3 emissions derived from the health care supply chain through the production, transport, use and disposal of goods and services
- Health services provision (15.9 kt CO2-e, 11.5%), pharmaceuticals (11.8 kt CO2-e, 8.5%), equipment (8.3 kt CO2-e, 6.0%) are the most prominent scope-3 emission sources

What we want to achieve: Sustainable clinical care provision that identifies and reduces environmental impact

How we will achieve this:

1. Clinical service design, planning and evaluation include environmental impact and sustainability considerations.
2. Incorporate environmental sustainability measures when evaluating clinical services.
3. The workforce is supported to develop skills and knowledge to understand, measure, monitor and improve the environmental footprint of healthcare delivery.
4. Health care provision is optimised to reduce clinical practices contributing to climate change, such as unwarranted clinical variation, poor quality use of medicines or devices, or low-value investigations and treatments.

Major targets:

- Desflurane to be removed from the formulary by end of 2023.
- Reduction in use of carbon heavy products and pharmaceuticals such as Metered Dose inhalers.
- Increase the level of staff engagement and awareness of impacts and improvements in the carbon footprint.
- Promote innovation and share success stories through grant and seed funding opportunities and District level recognition.

Sustainability in action:

A new model of care In WNSWLHF Radiation Oncology has been explored via a feasibility pilot project for Medical Imaging Simulated Radiation Therapy (MISRT). Through MISRT, medical imaging acquired CT scans are used to plan palliative radiation therapy, eliminating patients need to attend CT simulation in the Radiation Oncology department. Over 15400 kilometres of patient travel was saved for 16 patients, with an estimated CO2 emission saving of 2.23 tonnes of CO2.

Products and Services

Background:

Sustainable procurement practices can reduce a considerable proportion of the health sector's greenhouse gas emissions. Indirect emissions (Scope 3) are more difficult to quantify and not in our direct control; however we can make informed choices about what products and services we purchase and the efficient movement of these across the District. This may require balancing the upfront costs of purchasing environmentally friendly alternatives with other sustainability initiatives that save costs.

Current performance:

- 76.8% (106.2 CO_2-e) of all emissions are scope 3 emissions derived from the health care supply chain through the production, transport, use and disposal of goods and services

What we want to achieve:

Cleaner and more socially responsible products, services, and supply chains

How we will achieve this:

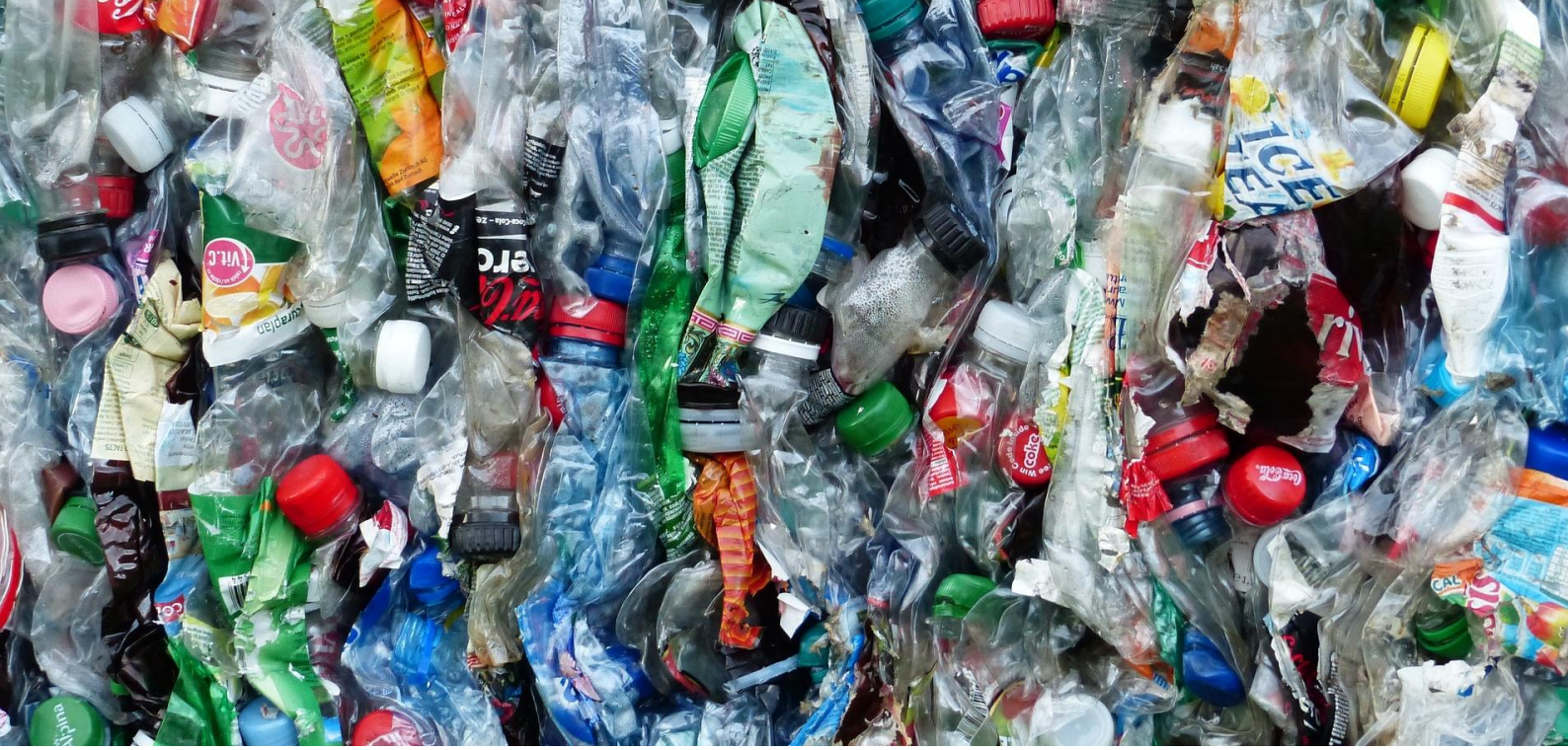
1. Adopting sustainable procurement practices within the LHD to enable the sustainable order and use of:
    - Pharmaceuticals
    - Consumables
    - Chemicals
    - Food
    - Electronics
2. Work with Procurement partners including eHealth NSW and HealthShare NSW regarding sustainability in procurement of high value contract goods and services
3. Develop policies and practices to support low-carbon movement of goods and services.

Major targets:

- Undertake assessment of the key social, environmental and economic sustainability risks and opportunities in our supply chain
- Align procurement processes with the ISO 20400 standard for sustainable procurement by 2024
- Sustainability evaluation criteria for procurement of goods and services to be developed by 2025
- A review of efficiency and coordination of transport of goods and services across the LHD will be completed by 2025
- Audits of linen, single use medical items and paper use will be conducted by 2024 to identify opportunities for improved efficiency

Sustainability in action:

In recent years a number of product changes have occurred across the LHD. These include changing of small cups and some medicine cups from plastic to paper, change of injection trays to sugarcane pulp, use of recycled plastic blanket warmers and replacement of single use plastic plates, bowls and cutlery as part of new NSW legislative requirements.



Waste

Background:

WNSWLHD produces a significant amount of waste per year, contributing to land, air, and water pollution. A circular waste management approach, where waste is minimised by reusing, repairing, refurbishing, and recycling existing materials and products, can minimise the negative impacts of waste generation on health and the environment. This will require a fundamental change to many of our current waste management practices, including improved measurement of waste streams and identification of improvement opportunities, however, many steps have begun across the District to reduce our footprint.

Current performance:

- 9.7 kilotonnes (kt) CO2 of waste footprint produced in FY 2020/21 operations
- Only approximately 11% of our waste is sent for recycling currently
- Pharmaceutical waste accounts for around 33% of the facility waste management costs

What we want to achieve: Sustainable healthcare waste management

How we will achieve this:

1. Follow waste hierarchy to conserve resources and minimise waste going to landfill.
2. Sustainable waste management of food waste
3. Safe and sustainable disposal of pharmaceuticals.

Major targets:

- Develop a Sustainable Healthcare Waste Minimisation and Management Framework by 2023
- Reduce waste going to landfill by 10% by 2025
- Increase waste recycled to 20% of total waste 2025
- Divert 50% of food waste going to landfill by end of 2027 with an interim target of 20% by 2025
- Implement pharmaceutical waste recycling in facilities by 2024

Sustainability in action:

- In a January 2023 staff survey, over three-quarters of respondents reported already undertaking waste minimisation activities at work.
- Orange Health Service Operating Theatre staff have diverted over 761 kg, or 76 wheelie bins of hard plastics from landfill, to be used to make equipment such as chairs that can be used within health facilities
- Bathurst and Orange Hospitals partner with River Medical to ethically repurpose and decommission equipment, beds, and furniture. In 2022 over 10 tonnes of unused equipment was diverted from landfill, with 60% repurposed and 39% recycled.
- Over 217 items of mixed IT equipment have been sent from the Dubbo Health Information Communication & Technology Hub to be refurbished and recycled through the Ethan Indigenous Technology Repurposing program. Ethan Indigenous have donated 15 refurbished LHD Laptops to Aboriginal and Torres Strait Islander youth with more planned in 2023.

Resources

Background:

Energy efficiency projects in hospitals offer an opportunity to reduce energy consumption and overall carbon footprint. The District uses significant electricity to run our buildings and provide our services, and while electricity consumption has remained steady, the cost has increased on average by 12% ($0.9M) every year. On an average day, the District uses 111K KWh at the cost of $0.20M. In 2022 a District Resource Efficiency Strategy was implemented, with many energy efficiency initiatives undertaken, including installing more efficient LED lighting, installing newer and more efficient air-conditioning and solar energy system installation.

Current performance:

- 30.3 kt CO2-e (21.9%) of total GHG footprint are scope 2 emissions from power plants generating Western NSW LHD's electricity
- An average of 34 % of our energy at eligible sites across the District is provided by solar.

What we want to achieve: Sustainable, reliable, and affordable energy and water resource efficiency systems

How we will achieve this:

1. Monitor and improve the sustainability and efficiency of existing assets performance within the constraints of the age and condition of the asset and budget.

2. Provide efficient, sustainable and fit-for-purpose new infrastructure and equipment through asset life cycling and facility planning.

3. Use alternative energy and water sources.

Major targets:

- By 2023–24, 55 energy savings projects will be implemented out of eligible buildings
- 65% LED lighting upgrade completed across all sites by 2026
- 50% of in scope assets to have solar by 2027
- Complete National Australian Built Environment (NABERS) energy rating audit of existing buildings by end of 2023

Sustainability in action:

LED upgrades on the Bloomfield campus (including Orange Health Service) have replaced 15,353 light fittings to the current standard. Lighting energy consumption was reduced by 70%, an average drop in consumption of 260,000 KWh per month which equates to $57 thousand a month

In 2021 the first ground-mounted solar PV system in NSW Health was installed at Parkes Hospital. The system is rated at 450 kWp's and is fitted with micro inverters that allow maximum solar advantage and a state-of-the-art monitoring system. The system is designed to reduce the site's consumption by an average of 38%.

Resource projects in our hospitals

SITE NAME	SOLAR	SOLAR SIZE (KWP)	% ENERGY PROVIDED BY SOLAR	SOLAR PROPOSED	LED LIGHTING	WATER SAVING PROJECT
Baradine Multipurpose Service	✔ 2023	80	40		x	
Bathurst Health Service	✔ Redevelopment		35		✔	
Blayney Multipurpose Service	✔ Redevelopment	80	42		✔	
Bourke Multipurpose Service	x			100	x	✔
Brewarrina Multipurpose Service	x			75	x	✔
Canowindra Soldiers Memorial Hospital	✔ Redevelopment	65	30		x	
Cobar Health Service	✔	99	25		✔	
Collarenebri Multipurpose Service	x			65	✔ 2023	
Condobolin Health Service	x			*	✔	
Coolah Multipurpose Service	x			68	x	( ) 2023
Coonabarabran Health Service	✔	99	50		✔ 2023	
Coonamble Multipurpose Service	x			41	x	
Cowra Health Service	✔ Redevelopment				( )	
Dubbo Health Service - Dubbo Hospital	✔ 2023	1072	17		x	
Dunedoo Multipurpose Service	x			50	x	( ) 2023
Eugowra Memorial Multipurpose Service	✔	50			( ) 2023	( ) 2023
Gilgandra Multipurpose Service	✔	90			✔ 2023	
Goodooga Health Service	x			8	x	
Grenfell Multipurpose Service	✔	105			( ) 2023	
Gulargambone Multipurpose Service	x			30	x	
Gulgong Multipurpose Service	✔	35			x	
Lachlan Health Service - Forbes	✔ 2023	300	35		( ) 2023	
Lachlan Health Service - Parkes	✔	450	31		( ) 2023	( ) 2023
Lightning Ridge Multipurpose Service	✔	66	64		x	
Molong Multipurpose Service	x			50	( ) 2023	
Mudgee Health Service	x	99	27		✔ ?	
Narromine Health Service	x			44	✔ 2023	
Nyngan Multipurpose Service	x			124	✔ 2023	( ) 2023
Oberon Multipurpose Service	x			30	✔ 2023	
Orange Health Service	✔ 2023	1663	22		✔	
Peak Hill Multipurpose Service	✔	50	26		( ) 2023	
Rylstone Multipurpose Service	x			100	x	
Tottenham Multipurpose Service	x			37	( ) 2023	( ) 2023
Trangie Multipurpose Service	x			50	x	
Trundle Multipurpose Service	x			23	( ) 2023	( ) 2023
Tullamore Multipurpose Service	x			47	( ) 2023	( ) 2023
Walgett Multipurpose Service	✔	99	42		x	✔
Warren Multipurpose Service	x			91	x	
Wellington Health Service	✔	70	28		x	

2023 = proposed, ✔ 2023 = confirmed * Roof to be replaced

Infrastructure

Background:

WNSWLHD infrastructure is critical in achieving our targets of 50% reduced carbon emissions by 2030. By ensuring all capital works projects are completed with the highest environmental ratings and sustainable design principles, the District will reduce building emissions, energy and water consumption and provide spaces to facilitate waste minimisation activities and low carbon travel. Opportunities to increase or improve green space will also be explored so that our patients and communities can receive associated positive health, social and environmental outcomes.

Current performance:

- 1.76 kt CO2-e (1.3%) of total GHG footprint are scope 1 emissions originating from WNSWLHD's premises and vehicles, with 30.3 kt CO2-e (21.9%) of the footprint attributed to energy use
- Waste from construction projects (7.7 kt CO2-e, 5.6%) are considered under scope 3 emissions

What we want to achieve: Environmentally sustainable building design, construction, and operation

How we will achieve this:

1. New facility builds and redevelopments are underpinned by sustainable building practices and design to achieve carbon neutral targets
2. All new buildings will meet environmental sustainability targets including the highest possible star rating using best practice rating tools
3. Integrate and offset health facilities with nature to protect our natural environment.

Major targets:

- All new buildings will achieve and maintain 4.5 Star NABERS Energy and 4 star Green Star ratings
- A hospital redevelopment will be identified to inform the drafting of an Environmental Sustainability Framework, including rating with best practice rating tools will be identified mid 2023

Sustainability in action:

Existing solar panels from Cowra will be redeployed to Baradine MPS as part of the Cowra Hospital redevelopment, providing the majority of energy for Baradine. New solar panels will be provided to Cowra Hospital.

Self-sustainable community gardens are under construction at Molong MPS, intending to provide sensory and wellness benefits to residents and the community and a means for composting food waste. The MPS strongly focuses on local procurement within and beyond this project, sourcing materials from local businesses. The Molong advancement group, the Molong RSL, and Essential Energy are partners in the project's delivery. The project aims to measure and evaluate its impact and scalability across the region.

Green space has been incorporated into the design of the Mudgee and the Cowra redevelopment to reduce heat radiation and provide environmental and health benefits for staff, patients, and the surrounding community.

Transport

Background:

Transport contributes significantly to health care's carbon footprint, comprising of emissions caused directly or indirectly by staff and patients travelling to and from health care, between facilities and corporate travel.

There is significant scope for improvement in travel footprint through the use of more efficient vehicles and reduction of unnecessary travel, particularly given the considerable geography covered by the LHD. The current lack of infrastructure to support electric vehicle (EV) adoption is a challenge. However, rapid change will be driven by recently announced targets for EV fleet across NSW.

Current performance:

- 1.76 kt CO2-e (1.3%) of total GHG footprint are scope 1 emissions originating from WNSWLHD's premises and vehicles*

  **excluding patient and staff travel from home to health facilities*
- Fleet composition shift from 10% of passenger vehicles being Hybrid Electric in 2020FY 53% by December 2022
- Significant reduction in fuel utilisation and efficiency within the broader fleet as a result
- Demonstrable ability to rapidly embrace new technologies, provided supply and infrastructure support it

What we want to achieve: Reduced vehicle emissions

How we will achieve this:

1. Move passenger fleet vehicles to electric vehicles (EV) and implement e-charging stations
2. Improve and reduce the footprint of patient transport
3. Promote and enable active travel for both staff and visitors
4. Implement car-pooling strategies and use of technology to reduce staff travel footprint.
5. Encourage sustainable travel, accommodation and flights.

Major targets:

- All new passenger fleet vehicles to be electric and EV charging stations at all facilities by 2030
- Interim target of 50% EV procurement by 2026.
- First battery electric vehicle by end 2023
- An active travel plan and audit by mid-2024 alongside plans to carbon footprint staff and patient travel

Sustainability in action:

241/453 total fleet (53%) are now Hybrid, presenting an almost 10% improvement in fuel efficiency
The districts first 12 EV e-charging stations are due to be commissioned at Dubbo hospital in May 2023 alongside the hospitals solar project.

How we will implement the Strategy

This section summarises the strategies and actions for each priority area that the District will pursue in order to implement the Strategy. The six priority areas are Clinical Care, Products and Services, Waste, Resources, Infrastructure and Transport. Corresponding strategies and actions are also included for the five enablers (Aboriginal Environmental Stewardship, Measurement and Evaluation, Health promotion and disease prevention, Leadership and Governance, and Resilience, adaption and offsetting).

Clinical Care

Strategy	Action	Time frame	Responsibility
1. Clinical service design, planning and evaluation includes environmental impact and sustainability considerations	1.1. Environmental Sustainability in Clinical Care is considered at all district Clinical Council and Clinical Stream meetings	By 2024	Sustainable Development Unit* Clinical Streams Leads
	1.2. Environmental Sustainability is incorporated into existing and new Clinical Service planning and implementation	Ongoing	Planning and Service Development team Operational managers
2. Incorporate environmental sustainability measures when evaluating clinical services	2.1. Measure the environmental footprint of clinical services and suggested new models of care, including the contribution of low value care to carbon emissions, and benchmark to best practice	Ongoing	Sustainable Development Unit*
3. The workforce is supported to develop skills and knowledge to understand, measure, monitor and improve the environmental footprint of healthcare delivery	3.1. Develop education and communications materials to inform staff about the carbon footprint of clinical care provision, and incorporate environmental sustainability into other relevant education programs	By 2025	Sustainable Development Unit* Learning & Development team
	3.2. Support carbon literacy in Healthcare workers by developing EOI process for funding to attend environmental sustainability training e.g. Carbon Foot Printing for Healthcare course	By 2024	Sustainable Development Unit* Learning & Development team
4. Health care provision is optimised via a Value-based approach to reduce clinical practices that contribute to climate change, while improving outcomes and quality of life	4.1. Conduct audits and literature review to identify and drive reduction of carbon hotspots in clinical care: desflurane, nitrous oxide, high carbon inhalers.	Ongoing	Sustainable Development Unit* WNSWLHD Sustainability Network
	4.2. Collaborating and supporting development of sustainable models of care that reduce clinical variation or minimise low value such as the Choosing Wisely initiative to reduce unnecessary tests, treatments and procedures; Value Based Surgery guidance to reduce incidence of surgeries that offer little to no benefit to the patient.	Ongoing	Sustainable Development Unit* Value and Service Improvement Manager
	4.3. Identify, develop and implement existing and new environmental stewardship programs for clinical services e.g. The Green Theatre checklist	Ongoing	WNSWLHD Sustainability Network – Clinical Care Action Group

*Proposed new resource

Products and Services

Strategy	Action	Time frame	Responsibility
1. Adopting sustainable procurement practices within the LHD to enable the sustainable order and use of: • pharmaceuticals • consumables • chemicals • food • electronics	1.1. Undertake assessment of the key social, environmental and economic sustainability risks and opportunities in our supply chain, and develop plan to align procurement processes and projects with ISO 20400	By 2024	Manager Contracts, Procurement & PPP Enterprise Risk Management
	1.2. Develop projects including sustainability evaluation criteria for procurement and delivery of goods and services (low-medium value items that are not required to be bought on contract), this may include but not limited to: • more efficient products according to best practice ratings • reusable, recyclable or biodegradable • housed in sustainable packaging • "buy local" for small value items (under $10K) • Avoiding single use plastics where practicable	By 2025	Manager Contracts, Procurement & PPP Sustainable Development Unit*
	1.3. Include Environmental Sustainability in LHD procurement training and information	By mid 2023	Manager Contracts, Procurement & PPP
	1.4. Implement an audit program for single use medical instruments to explore feasibility of swapping to reusable items including: • Availability of sterilization facilities and capacity to handle and store items • Cost effectiveness of reuse, vs recycle, vs environmentally sustainable disposal using best practice evidence	By 2025	Sustainable Development Unit* Manager Contracts, Procurement & PPP WNSWLHD Sustainability Network
	1.5. Conduct audit of linen usage and develop interventions to improve efficiency in use	By 2024	Manager Patient Support Services
	1.6. Conduct audit of paper usage to identify opportunities to reduce	By 2024	Procurement team
	1.7. Check WNSWLHD quotation/tender documents to ensure inclusion of sustainability evaluation criteria	2023	Manager Contracts, Procurement & PPP
2. Work with Procurement partners including eHealth NSW and HealthSare NSW regarding sustainability in procurement of high value contact goods and services	2.1. Work with HealthShare to ensure inclusion of Environmental Sustainability criteria in major procurement tenders and pre-qualification processes, with sufficient weighting to encourage improved sustainability performance through tender evaluation process	Ongoing	Manager Contracts, Procurement & PPP
	2.2. Advocate for improved sustainability in Clinical Products Managers Network in conjunction with Healthshare – sharing challenges and success	Ongoing	Procurement team
	2.3. Work with HealthShare to ensure inclusion of Environmental Sustainability in NSW Health Procurement Reform Program including locally implemented projects such as Deliverease	Ongoing	Procurement team
3. Develop policies and practices to support low-carbon movement of goods and services.	3.1. Incorporating Environmental Sustainability into implementation of NSW freight contract	By 2025	Manager Contracts, Procurement & PPP
	3.2. Review efficiency and coordination of transport of goods and services across the LHD to gain better visibility of products moving across the District and understanding of sustainability practices of transport partners.	By 2025	Director Corporate Services & Clinical Support

Waste

Strategy	Action		Time frame	Responsibility
1. Follow waste hierarchy to conserve resources and minimise waste going to landfill.	1.1.	Develop a Sustainable Healthcare Waste Minimisation and Management Framework including: • measurement and evaluation to gain baseline info on current waste management practices LHD wide, as well as maintaining mandatory reporting requirements under GREP • principles of circular economy and waste hierarchy – rethink, reduce, reusing, repurposing, recycling • implementation of a process and platform to reuse and refurbish clinical and corporate equipment at a community, district and state level e.g. used office equipment, biomedical equipment • strategies to implement waste segregation at the source to facilitate composting or recycling • recycling initiatives for consumables, packaging and other products (e.g. PVC, batteries, printer cartridge, e-waste). • staff engagement • support and encourage new and existing business and community partnerships, contracts and initiatives to reuse, recycle or recover waste	By 2024	Sustainable Development Unit* Manager Patient Support Services Director Corporate Services & Clinical Support Biomedical engineering Manager District Manager Asset Operations
	1.2.	Support scale up and encourage new locally led waste initiatives	Ongoing	WNSWLHD Sustainability Network
	1.3.	Advocate for state-wide waste minimisation initiatives through net zero network	Ongoing	Sustainable Development Unit*
2. Sustainable waste management of food waste	2.1.	Develop a Sustainable food use and waste toolbox - supplementary to the overall waste framework including: • staff engagement • food waste review (measure and record types of waste) • menu redesign • food packaging e.g. commercially compostable packaging • customised approached for settings e.g. transfer of organics for base hospitals vs small-scale onsite solutions for MPS • food waste management e.g. composting, food dehydration, • liquids (i.e. reducing water bottles, cans of drinks) • staff food waste and drink • paperless kitchen	By 2024	Sustainable Development Unit* Manager Patient Support Services District Dietician Health Promotion
3. Safe and sustainable disposal of pharmaceuticals	4.	Develop and implement a Sustainable pharmaceuticals waste toolbox - supplementary to the overall waste framework	By 2024	MoH Net Zero Lead - Pharmacy

Resources

Strategy	Action	Time frame	Responsibility
1. Monitor and improve the sustainability and efficiency of existing assets within the constraints of the age and condition of the asset and budget	1.1. Complete progress report for District Resource Efficiency Strategy 22-24. District Resource Efficiency Strategy to be translated to a resource action plan	Mid 2023	Manager Resource & Building Technology
	1.2. Ensured sustainable development forms a key part of Asset Management planning	Mid 2023	Sustainable Development Unit* Planning and Service Development
	1.3. Continue work on a monitoring and reporting mechanism to facilitate review and improvement of resources as well as meet mandatory reporting requirements under GREP. This includes: • facility energy and water consumption and expenditure data • progress of solar energy project and outputs • progress of energy and water efficiency projects • audit of relevant equipment/fixtures	By mid-2024	District Manager Asset Operations
	1.4. Implement an energy and water audit improvement program using best practice rating tools (e.g. NABERS) and efficiency ratings (ENERGY STAR, Greenhouse and Energy Minimum Standards (GEMS))to bench mark, improve our assets, and drive projects including: • LED lighting upgrade, Window tinting, Hot water system replacement, Air conditioners, Pan sanitizers, Bathroom fixtures toilets, shower and taps	Ongoing	District Manager Asset Operations
	1.5. Co-design education materials for health professionals and other staff on reducing energy use and waste	By mid-2024	Manager Resource & Building Technology WNSWLHD Sustainability Network
2. Provide efficient, sustainable and fit-for-purpose new infrastructure and equipment	2.1. Incorporate specific resource considerations into a new Environmental Sustainability Framework for capital projects < $1 M. and from $1- 10 M (See Infrastructure action 1.1)	By mid-2024	Sustainable Development Unit* Director Corporate Services & Clinical Support Infrastructure and Property Manager District Manager Asset Operations
	2.2. All new electrical equipment purchased will be at least the market average star rating according to best practice (e.g. ENERGY STAR, GEMS)	Ongoing	Manager Resource & Building Technology
	2.3. All new water-using appliances, shower heads, taps and toilets purchased are at least the average WELS star rating by product type	Ongoing	Manager Resource & Building Technology
3. Use alternative energy and water sources	3.1. Conduct renewable energy audits to assess sites suitable for renewable energy production - report to dashboard and MoH	Ongoing	Manager Resource & Building Technology
	3.2. Continue to implement solar energy projects aiming for 60% of 'in scope' buildings to have Solar PV Systems	By 2026	Manager Resource & Building Technology
	3.3. Review rental buildings and implement green energy projects	Ongoing	Manager Resource & Building Technology
	3.4. Continue to explore and implement water efficiency and harnessing projects including rainwater capture, dialysis reuse of water, wastewater recycling.	Ongoing	Manager Resource & Building Technology

Infrastructure

Strategy	Action	Time frame	Responsibility
1. New facility builds and redevelopments are underpinned by sustainable building practices and design to achieve carbon neutral targets	1.1. Develop and Implement a local Environmental Sustainability Framework for infrastructure projects that measures, sets targets and reduces emissions for all levels of capital works. Including targets for: • use of recycled, reused and carbon embodied materials • energy use – powered by renewables and fossil fuel free • highly efficient – lighting, heating and cooling technologies • air quality and ventilation • sustainable building management systems • electric vehicle infrastructure for both public and fleet • green travel plan • opportunities for water conservation and recycling • space for waste management and storage (including reusing and recycling) • sustainable construction waste management • future proofing for climate change and weather events • measured against a best practice rating tools (e.g. NABERS).	By mid-2024	Director Corporate Services & Clinical Support Sustainable Development Unit* Executive Director, Finance, Infrastructure and Corporate Infrastructure and Property Manager District Manager Asset Operations
	1.2. Establish sustainability working groups for all infrastructure projects	Ongoing	Redevelopment Project Director, Facility General Manager May be part of existing PUG/PCG under HI lead
	1.3. Work with partners at Ministry of Health and Health Infrastructure to ensure inclusion of sustainability targets in their projects and compliance with Environmental Sustainability Development polices and legislation		Form part of Concept design/business case
2. All new buildings will meet environmental sustainability targets including highest possible rating using best practice rating tools	2.1. Identify a hospital redevelopment to inform the Environmental Sustainability Framework and undertake rating with best practice rating tools	End of 2023	Sustainable Development Unit* Infrastructure and Property Manager
	2.2. All new buildings will be highly rated against best practice tools, i.e. a minimum 4.5 star NABERS rating	2024 onwards	Director Corporate Services & Clinical Support
3. Integrate and offset hospital facilities with nature to protect our natural environment	3.1. Review opportunities in infrastructure projects to increase levels of biodiversity through vegetation suitable to the natural environment and increase staff, patient and community wellbeing by increasing the biophilic design	Ongoing	Director Corporate Services & Clinical Support Infrastructure and Property Manager
	3.2. Undertake audit of access to green space and biodiversity across existing facilities and implement an improvement program to protect and increase biodiversity, biophilic design and the interaction, or views of facilities to green space and nature.	2024	WNSWLHD Sustainability Network Infrastructure and Property Manager

Transport

Strategy	Action	Time frame	Responsibility
1. Move fleet vehicles to electric vehicles (EV) and implement e-charging stations across facilities in line with NSW government targets	1.1. Develop fleet strategy for WNWLHD that is underpinned by sustainability goals by end of 2023	By end 2023	Fleet Manager
	1.2. Implement telematics for fleet vehicles to improve vehicle utilisation and fuel efficiency by end of 2023. Work towards a reduction in fleet vehicle numbers, review days used, total km driven.	By end 2023	Fleet Manager
	1.3. Purchase first Battery EV for WNSWLHD	By end 2023	Fleet Manager HealthShare
	1.4. Develop implementation plan to transition towards fully electric passenger vehicles fleet including staff education and infrastructure roll out	By mid 2024	Fleet Manager
	1.5. Develop charging infrastructure and supporting procedures across all facilities,	By 2027	Fleet Manager Manager Resource & Building Technology
2. Improve and reduce the footprint of patient transport	2.1. Develop/build in environmental sustainability into VCARE/patient transport plans.	Ongoing	General Manager VCare
	2.2. Undertake project to review patient transport vehicles and processes to improve vehicle utilisation and fuel efficiency and minimise foot print - review fleet make up to explore opportunities to incorporate more efficient or hybrid vehicles (types of vehicles dependent on acuity e.g. kia carnivals), dual occupancy, and link to clinical efficiencies / best use of transport for the patient.	By end 2024	General Manager VCare
3. Promote and enable active travel for both staff and visitors	3.1. Develop an Active transport plan to support sustainable and active travel for both staff and visitors, including review and provision of secure cycle parking, showers, and lockers.	By mid 2024	Sustainable Development Unit*
4. Implement car-pooling strategies and use of technology to reduce staff travel footprint.	4.1. Develop a District Carpooling procedure/framework and implementation plan- including education and change management.	By mid 2024	Fleet Manager
	4.2. Consider staff travel in District fleet strategy and project to review data from telematics and booking system e.g. review of vehicles, km travelled, types of travel to develop framework	By mid 2024	Fleet Manager
5. Encourage sustainable travel, accommodation and flights.	5.1. Review opportunities to facilitate use of sustainable flights and accommodation into staff travel outside of our district.	By 2025	Director Corporate Services & Clinical Support

Enablers

Aboriginal Environmental Stewardship

Western NSW Local Health District recognizes the spiritual, cultural, social and economic relationship of Aboriginal and Torres Strait Islander peoples with their traditional lands and waters. We place value on the unique role of Aboriginal people as environmental stewards and recognise the connection of Aboriginal people towards country and responsibility in caring for country amassed over thousands of years. Utilising Aboriginal environmental stewardship will be instrumental to the delivery of this Strategy, as summarised in the following set of strategies and actions.

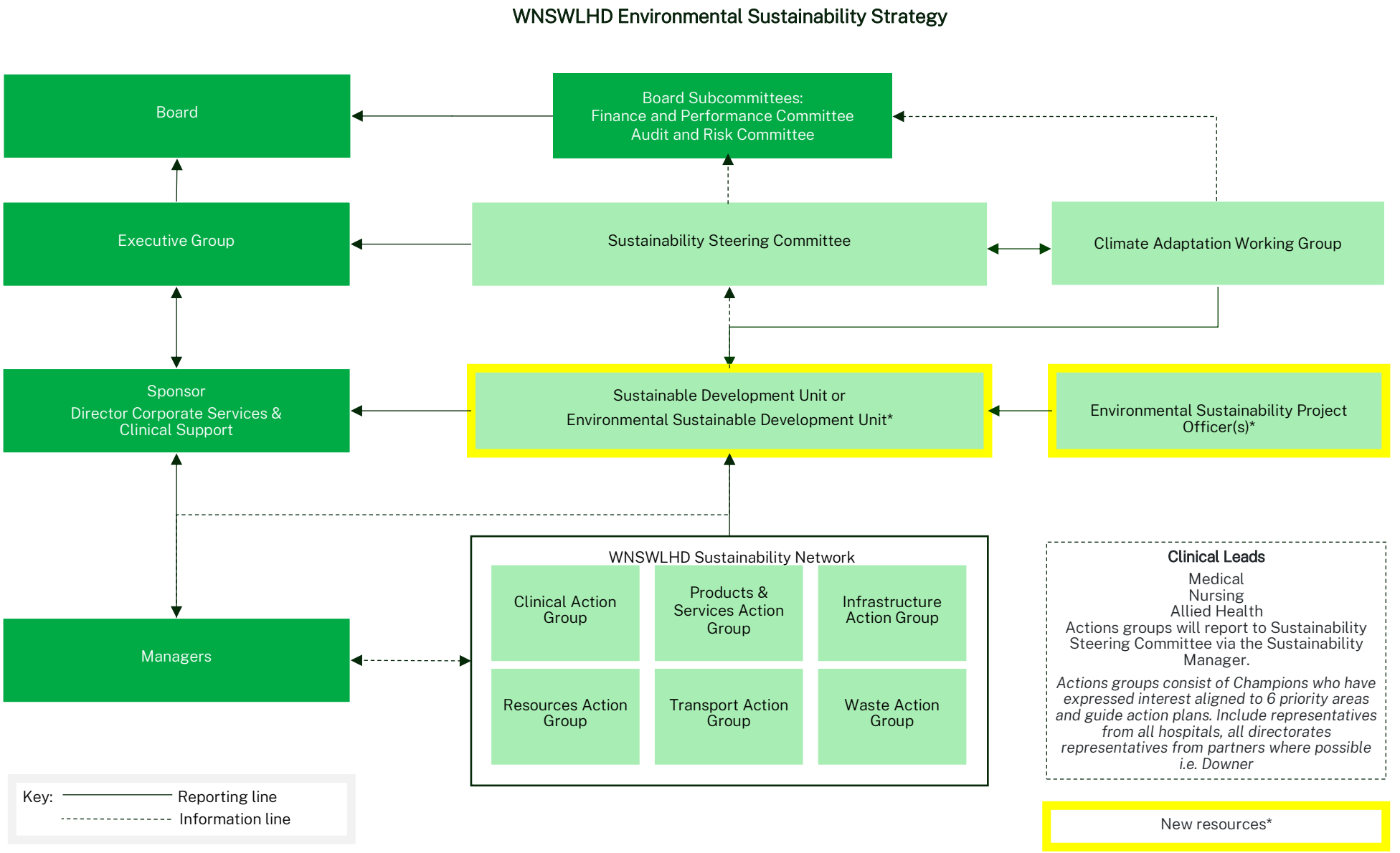
Strategy	Action	Time frame	Responsibility
1. Incorporate Aboriginal decision making and co-design in all levels of Environmental Sustainability Strategy governance and implementation.	1.1. Aboriginal Leadership is incorporated into all levels of Environmental Sustainability Governance	By Mid-2023	Sustainable Development Unit*
	1.2. Identified Aboriginal positions to be considered in ESS resourcing. For example, an Aboriginal Environmental Sustainability Project officer*	Ongoing	Director Corporate Services & Clinical Support
	1.3. Ensure representative inclusion of Aboriginal staff in the Environmental Sustainability Network	Ongoing	Sustainable Development Unit*
	1.4. Ensure coordination between Environmental Sustainability activities and relevant Aboriginal-specific programs, procedures, guidelines, health initiatives, or strategies	Ongoing	Sustainable Development Unit* Aboriginal Health & Wellbeing Directorate
2. Facilitate and support Aboriginal Environmental Sustainability Projects within the District	2.1. Identify and prioritise Aboriginal specific projects for implementation under the six priority areas. E.g. incorporation of native foods into the "Sustainable food toolbox"	Ongoing	Sustainable Development Unit* Aboriginal Health & Wellbeing Directorate
	2.2. Encourage, support and prioritise application of Aboriginal Sustainability projects for grant funding aimed at meeting the needs of Aboriginal people and communities e.g. PitchIt	Ongoing	Sustainable Development Unit* Aboriginal Health & Wellbeing Directorate Research Office
3. Prioritise opportunities for Aboriginal community initiatives, representative groups and businesses to participate or partner in strategy implementation	3.1. Actively explore opportunities to partner on all priority areas, including but not limited to: • procurement • Infrastructure • Waste-Engaging Aboriginal communities and businesses who undertake recycling, reclamation and remanufacture activities (e.g. Ethan Indigenous)	Ongoing	Sustainable Development Unit* Aboriginal Health & Wellbeing Directorate

Leadership and Governance

Leadership and governance will be an essential driver of WNSWLHD Environmental Sustainability Strategy, and a Steering Committee and dedicated resources will maintain oversight of its implementation.

Strategy	Actions	Time frame	Responsibility
1. Establish Governance structure, processes and accountability for Environmental Sustainability at all levels of the LHD	1.1. Approval of Governance framework by Executive. A Steering Committee will oversee actions to reduce carbon footprint, whilst a Climate Adaption Working Group will work to meet targets set out in the NSW Climate Change Adaption Plan.	By mid 2023	Executive Group
	1.2. Resourcing of a WNSWLHD Sustainable Development Unit (SDU) or team. Initial resourcing proposed: 1 FTE Sustainability Manager and 1 or more FTE supporting officer(s) to implement, deliver and evaluate the WNSWLHD ESS. Supporting positions may include: Project Officer(s), Environmental Sustainability Data Analyst, and Climate Change Risk Officer.	By mid 2023	Chief Executive Executive Director, Finance, Infrastructure and Corporate
	1.3. Develop a Roadmap and action plan for implementation of the six priority areas, outlining initial investments and initiatives to support the first two years of the strategy.	By 2024	Sustainable Development Unit*
	1.4. Executives to include Environmental Sustainability initiatives as a goal in their performance agreements	By 2024	Executive Group
	1.5. Environmental Sustainability is a key consideration on all strategic and operational plans	By mid 2023	Planning and Service Development
	1.6. Environmental Sustainability on relevant meeting agendas at directorate, service and stream level	By 2024	Executive Group
	1.7. Establish WNSWLD Sustainability Network and action groups aligned to priority areas – to assist in ESS implementation and improve carbon literacy	By mid 2023	Sustainable Development Unit*
2. Communication, engagement and recognition of staff	2.1. Develop a Change management and communications plan for the Environmental Sustainability Strategy	By 2024	Sustainable Development Unit* Consider Board level sponsor* People and Culture
	2.2. Staff net zero positions – may include future resourcing and backfill to undertake projects	Ongoing	Sustainable Development Unit*
	2.3. Encourage and facilitate innovation through funding opportunities e.g PitchIt	Ongoing	Research office
	2.4 Reward and promote excellence via local awards category for Environmental Sustainability and submission to relevant state and national awards	By mid 2023	District Health Awards Committee
3. Patient and community engagement	3.1. Engage consumers, carers, families and the broader community in the design and implementation of strategies using the Meaningful Engagement Strategy toolbox.	Ongoing	Sustainable Development Unit* Community Engagement Lead
4. Leadership in our community and collaboration with our partners	4.1. Work collaboratively with key partners in our region to ensure an integrated approach to adaptation planning	Ongoing	Sustainable Development Unit*
	4.2. Engage with external partners to promote and drive environmental sustainability in their activities	Ongoing	Sustainable Development Unit*
	4.3. Ensure WNSWLHD joins the Global Green and Healthy Hospital (GGHH) network	By 2024	Sustainable Development Unit*

Governance Framework



Measurement and evaluation

The Environmental Sustainability Strategy outlines how the District will progress towards environmental sustainability, recognising much work is still to be done to understand the carbon footprint of specific healthcare goods and services and subsequently develop initiatives to improve these. Comprehensive evaluation will be conducted to determine the impacts and success of the Strategy, while identifying opportunities for improvement and refocusing. New actions will be considered as more data becomes available, and as there are changes in technology, policy and other drivers of environmental sustainability in healthcare.

Strategy	Action	Time frame	Responsibility
1. Measure and report our baseline and progress on carbon foot print and sustainable development	1.1. Incorporate monitoring and evaluation framework into implementation roadmap based on best practice tools and evidence to monitor progress of strategic actions	By 2024	Sustainable Development Unit*
	1.2. Develop a dashboard to display progress and compare and benchmark progress against peer, state, national and international levels. Link this in with the NSW Carbon Zero Accelerator program.	By mid-2024	Sustainable Development Unit* Manager Data and Information
	1.3. Report progress and outcomes to the board, staff and community regularly and in a public annual report.	Ongoing	Sustainable Development Unit*
	1.4. Continue to measure and refine our footprint to better understand opportunities for impact including updating footprint to include Bathurst and Orange, extending to staff travel footprint, breakdown by facility and sites, further breakdown of scope 3 emissions	By 2025	Sustainable Development Unit* District Manager Asset Operations
2. Establish framework for measuring and promoting savings and income generation from sustainability activities.	2.1. Examine the feasibility of a self-funded sustainability and efficiency improvement programs and develop proposed methodologies	By 2025	Sustainable Development Unit* Executive Director, Finance, Infrastructure and Corporate
	2.2. Robust methodology for savings reinvestment, and quarantining funds for the purpose of funding future projects.	By 2025	Sustainable Development Unit* Executive Director, Finance, Infrastructure and Corporate
	2.3. Develop a process for refurbishing and selling goods and equipment as an alternative to landfill. For example old hospital beds	By 2025	Sustainable Development Unit* Manager Contracts, Procurement & PPP
3. Ensure effects of climate change are incorporated into existing health related measures	3.1. Collect and report metrics to measure progress toward climate change resilience and adaptation as part of the NSW Climate Change Adaption strategy. Incorporate climate change related effects (e.g. heat related illnesses) into the Western NSW LHD Health Needs Assessment.	By 2025	Manager Health Outcomes
4. Support new research in Environmental Sustainability	4.1. Support research projects that contribute to the collection and reporting of the lifecycle carbon footprint of healthcare at both an aggregate level and at the level of individual care decisions	Ongoing	Director of research

Health Promotion and Disease Prevention

WNSWLHD recognises the link between the health and wellbeing of our people and the health and wellbeing of the environment. Local health promotion and health protection initiatives can contribute to the development of a healthier, more equitable and more ecologically sustainable community, keeping people out of hospital and subsequently reducing our footprint.

Strategy	Action	Time frame	Responsibility
1. Ensure Environmental Sustainability and emissions reductions are incorporated into new and existing Healthy Built Environment initiatives	1.1. Participate in development and implementation of an active transport plan for staff and community to support both increased physical activity and reduced carbon emissions when travelling to health facilities.	By mid 2024	Sustainable Development Unit* District Manager Asset Operations People and Culture Health Promotion WNSWLHD Sustainability Network
	1.2. Advocate for improvement of both health facilities and the wider built environment to promote both physical activity and increased contact with nature	Ongoing	Manager Infrastructure Manager Health Promotion
	1.3. Work with partners to ensure projects to improve living conditions, such as Housing for Health program and Aboriginal Communities Water and Sewerage Program, include environmental sustainability considerations	Ongoing	Manager Health Protection
2. Include environmental sustainability activities into new and existing initiatives to promote health in rural people	2.1. Identify opportunities to include sustainable food activities into new and existing healthy eating initiatives targeted at community e.g. community gardens; food co-operatives; farmers' markets; and food security initiatives	Ongoing	Manager Health Promotion
	2.2. Collaborate on the development of a healthy water consumption project to promote water as the healthy choice of drink, increase use of reusable drink and food containers and reduce environmental footprint of plastic water bottles and other single use packaged products.	By 2025	Sustainable Development Unit* People and Culture District manager Patient Support Services Health Promotion WNSWLHD Sustainability Network
3. Reducing community exposure to environmental health hazards related to climate change	3.1. Collaborate with key stakeholders to understand, prepare for, and respond to impacts of climate change on health outcomes, including mitigating heat stress, mosquito-borne disease monitoring, and supporting evacuation centres	Ongoing	Manager Health Protection Climate Adaption Working Group

Resilience, adaption and offsetting

Rising temperatures and changing climatic conditions, including more frequent and intense extreme weather events, have been linked with both direct and indirect impacts on human health. These include heat-related illnesses, injury, and infectious and respiratory diseases, and are posed to disproportionately impact rural people who already experience many health inequalities compared to their urban counterparts.

Many rural and remote areas will be particularly vulnerable due to reliance on agriculture, and vulnerability to drought, bushfires and water security threats. Additionally projected impacts include mental health impacts and food security impacts with vulnerable groups, including Aboriginal and Torres Strait Islander people expected to experience higher than average frequency. Climate change will have impacts through increasing the burden on our health system, changing many aspects of our service delivery, as well as have physical impacts on our infrastructure.

WNSWLHD will take steps to mitigate and adapt to existing and proposed impacts of climate change through a rural lens, promote environmental sustainability within its own operations through actions under the six priority areas, and creating an adaption plan to help the District respond to the already growing burden of illness and injury resulting from climate change. The District will also explore and support the development of projects that reduce emissions of greenhouse gases to compensate for residual emissions created in health care that cannot currently be avoided.

Strategy	Action	Time frame	Responsibility
1. Mitigating risks or effects of climate change and severe weather conditions on our business and functions.	1.1. Establish Climate Adaptation Working Group	Mid 2023	Director Corporate Services & Clinical Support Sustainable Development Unit*
	1.2. Identify own climate change risks in alignment with the Climate Risk Ready NSW Guide and climate change projections	End of 2023	Sustainable Development Unit*
	1.3. Develop a Climate Change Adaptation Plan, including plan to measure impacts and resilience, change risk thresholds and a prioritisation framework (see Measurement and evaluation action 3.1)	End of 2023	Sustainable Development Unit* Climate Adaptation Working Group
	1.4. Existing emergency plans and business continuity plans to take account of the impact of climate change	End of 2023	Risk management Unit State Health Services Functional Area Coordinator
	1.5. Prepare our staff to deal with extreme weather scenarios so we can maintain essential services	Ongoing	Emergency Management Unit Work Health Safety
	1.6. Ensure the effects of climate change are captured in risk registers as appropriate, including the WNSWLHD Strategic Risk Register	Ongoing	Risk management Unit
2. Explore and support the development of projects that reduce emissions of greenhouse gases to compensate for residual emissions created in health care that cannot currently be avoided.	2.1. Align offsetting approach with best practice and NSW government approaches	Ongoing	Sustainable Development Unit*
	2.2. Explore grant opportunities to support innovative CO2 offset projects	By 2025	Sustainable Development Unit*
	2.3. Prioritise partnerships that are local and provide opportunities for offsetting, through infrastructure projects, procurement contracts, renewable energy projects, waste-to-energy projects, tree planting projects.	Ongoing	Sustainable Development Unit*
	2.4. Promote involvement in community initiatives such as tree planting days	Ongoing	Sustainable Development Unit*

Interrelated Plans, Initiatives and Committees within WNSWLHD

Priority area or Enabler	Plan, Project or Committee
Clinical Care	Clinical council and clinical stream meetings
	WNSWLHD Value Based Healthcare (VBHC) Framework *Under development*
Procurement	NSW Health Procurement Reform Program
	Sustainability evaluation criteria*
	Sustainability audits for linen, paper and single use medical instruments*
Waste	Sustainable Healthcare Waste Minimisation and Management Framework*
	Sustainable food use and waste toolbox* and Sustainable pharmaceuticals waste toolbox*
Resources	GREP reporting
	Facilities Management Planning
	District Resource Efficiency Strategy 22-24 /Resource Action Plan*
	Energy and water audit improvement program
	Renewable energy audit program
Infrastructure	Asset Management Planning including: Strategic Asset Management Plan, Asset Management Plan, Capital Investment Proposals
	Environmental Sustainability Framework*
	Infrastructure project Sustainability working groups*
	Audit of access to green space and biodiversity*
Transport	NSW freight contract
	District Fleet Strategy*
	EV fleet Implementation plan*
	Active transport plan*
	Patient Transport Sustainability review*
Leadership and Governance	Roadmap and action plan for Strategy implementation*
Measurement and Evaluation	Research Strategy 2022-2026
	WNSWLHD Health Needs Assessment
Health Promotion and Disease Prevention	Housing for Health program and Aboriginal Communities Water and Sewerage Program
	Healthy water consumption project*
Resilience, adaption and offsetting	Climate Change Adaptation Plan*
	Emergency plans and business continuity plans.

*Proposed

Definitions and abbreviations

Item	Description
Carbon footprint	The total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions
CHC	Community health centres
District	Western NSW Local Health District
DRES	District Resource Efficiency Strategy
ED	Emergency Department
EV	Electric Vehicle
GHG	Green House Gas protocol (GHG) Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions.
ICE Vehicles	Internal Combustion Engine Vehicle
MPS	Multipurpose Facility
NABERS	National Australian Built Environment
Net zero	*Achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out* of the environment
Strategy or ESS	Environmental Sustainability Strategy
WNSWLHD	Western NSW Local Health District

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