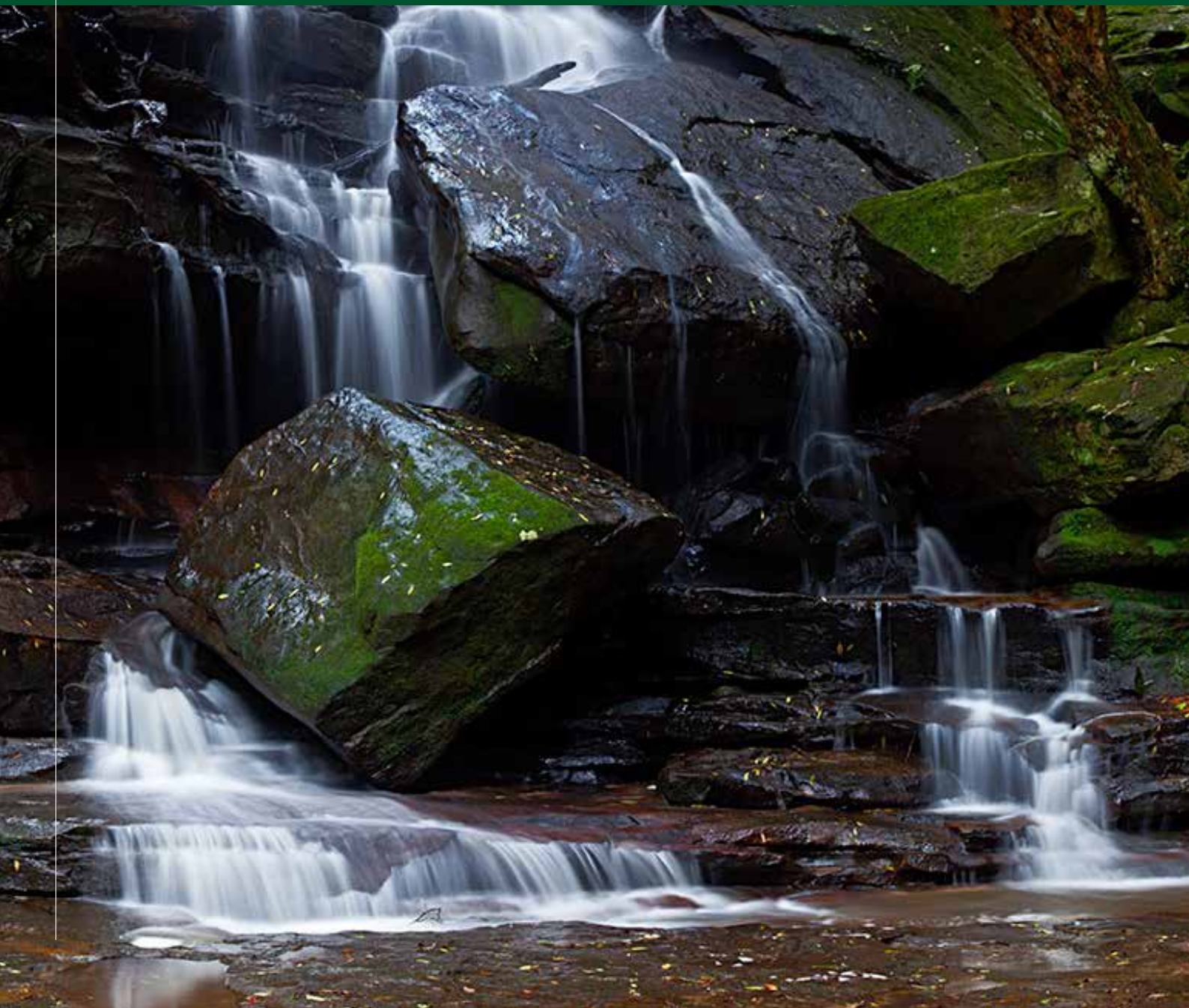**Central Coast
Local Health District**

Environmental Sustainability Framework

2024–2027

Acknowledgment of Country

The Central Coast Local Health District acknowledge the Darkinyung (Darkinjung) people as the Traditional Custodians of the land on which we work and live. We acknowledge their continuing culture and strong connections to this land. We honour and pay our respects to their Elders, past, present who have walked and cared for these lands, and to our youth, who are our future leaders. This cultural and spiritual connection to country is deeply valued and recognised throughout our community.

For generations, Aboriginal and Torres Strait Islander peoples have cared for country and our natural resources. Their wisdom has shaped our understanding and influenced how we protect and conserve our environment. The health of our land and water is inseparable from the health of our patients, staff and community and we deeply value the knowledge and wisdom that the Aboriginal and Torres Strait Islander peoples hold, that call this country their home.

We are committed to working together to learn from and incorporating this knowledge into everything we do. Together we can ensure our practices protect and respect our environment to create Sustainable Healthcare, for now and for future generations.

Jenni McEwen's artwork, On Country, represents gathering on Darkinjung country, travelling on Darkinjung country and caring for Darkinjung country. The circles represent the diverse people from across the land. The large circle represents coming together as one in unity. The colours represent the landscape. Jenni McEwen, a proud Bundjalung woman from the Northern Rivers of NSW and has lived on Darkinjung country for 45 years. This piece captures the essence of this connection and partnership.

Contents

Note: Throughout this document the term 'Aboriginal' is used in preference of "Aboriginal and Torres Strait Islander" in recognition that Aboriginal peoples are the original inhabitants of NSW

Foreword

We are enthusiastic to introduce our Central Coast Local Health District (CCLHD) Environmental Sustainability Framework 2024-2027. Building on the achievements and groundwork laid by our dedicated staff, this new plan underscores our commitment to Sustainable Healthcare. Together, we are working towards Net Zero to ensure better health for everyone, our environment, and our future.

As our climate changes and our population grows, our demand for care and resources is increasing, impacting our environment and the health of our people. It is increasingly important for our District to support and leverage innovative, high-value, low-carbon, Sustainable healthcare practices and services. Our Environmental Sustainability Framework 2024-2027 outlines our strategic direction and how we can harness opportunities to collaborate and develop partnerships, providing high-value, low-carbon, sustainable healthcare.

Critical to our transition towards Net Zero is our staff. Their commitment, hard work and dedication have been instrumental in achieving our goals thus far, establishing a strong foundation for ongoing innovative and sustainable healthcare initiatives. Their efforts not only drive our environmental agenda but also make our District a great place to work, fostering a culture of sustainability, trust and excellence.

NSW Health and the federal government are constantly moving towards more sustainable outcomes. The Future Health initiative focuses on managing the health system sustainably, while the Climate Risk Net Zero Unit at the Ministry of Health is developing a roadmap for achieving Net Zero goals. It is imperative that we at Central Coast Local Health District join this journey, to learn and develop alongside these broader efforts. Working together, we can deliver high-value, low-carbon healthcare and ensure a healthier future for our people on the Central Coast.

Introduction

CCLHD Environmental Sustainability Framework 2024-2027

The Central Coast Local Health District (CCLHD) Environmental Sustainability Framework 2024-2027 demonstrates our commitment to providing high value, low carbon, Sustainable Healthcare services. Our goal is to reduce our carbon footprint and environmental impact, while delivering sustainable healthcare services that our staff and community trust, in line with our District Strategic Plan.

The healthcare sector in NSW produces **6.6% of greenhouse gas emissions** and **8% of the waste** of the NSW economy

The healthcare sector as a whole is responsible for **7% of all Australia's emissions**

The decisions we make, including the products we use, how we deliver care, and even how we travel, have important social, environmental, and economic impacts that directly affect our health.

As an organisation we emit significant amounts of greenhouse gas emissions and waste, which contributes to climate change and is harming human health [1]. As a result we are already seeing the effects of Climate-sensitive health risks in our community and healthcare sector.

A healthy environment means healthy patients', staff and communities, and Sustainable Healthcare is about understanding these connections to meet our current and future healthcare needs. By reducing our environmental impact, and valuing our resources for future generations, we ensure our healthcare system is managed sustainably in line with the NSW Health Future Health Strategy [3].

By 2030, The Central Coast Local Health District expects our demand for acute care will increase[4], which will place pressure on our existing resources and processes, while Climate Risks pose a threat to the health of our most vulnerable communities, our facilities and our service delivery.

To manage these impacts, our Environmental Sustainability framework will focus on six key areas: Sustainable Healthcare, Energy and Water, Resource recovery and waste management, Travel and Transport, Building and Infrastructure and reducing our Supply chain emissions. Our focus areas align with the *NSW Health Draft Net Zero Roadmap 2024-2030* [5] and Australia's first *National Health and Climate Strategy* [6], which provides a guideline for our actions to reduce our carbon footprint. Behind this framework, sits our own CCLHD body of actions across our six focus areas.

At the Central Coast Local Health District, Environmental Sustainability as one of our key, joint Annual priorities. The District, in line with NSW Health, is committed to reducing our greenhouse gas emissions, with interim targets of 50% by 2030, 70% by 2035, and reaching Net Zero by 2050. This framework recognises that Sustainable Healthcare is a shared responsibility and will be achieved through an integrative and collaborative approach. Together, we can all contribute to our vision of providing better health for everyone, our environment and our future.

Our Net Zero Targets

50% reduction in emissions by 2030

70% reduction by 2035

Net Zero carbon emissions by 2050

(based on a 2005 baseline)

Our health system itself is a major contributor to climate change, which is harming human health'

Climate Risk and Net Zero position statement, NSW Health [1,2]
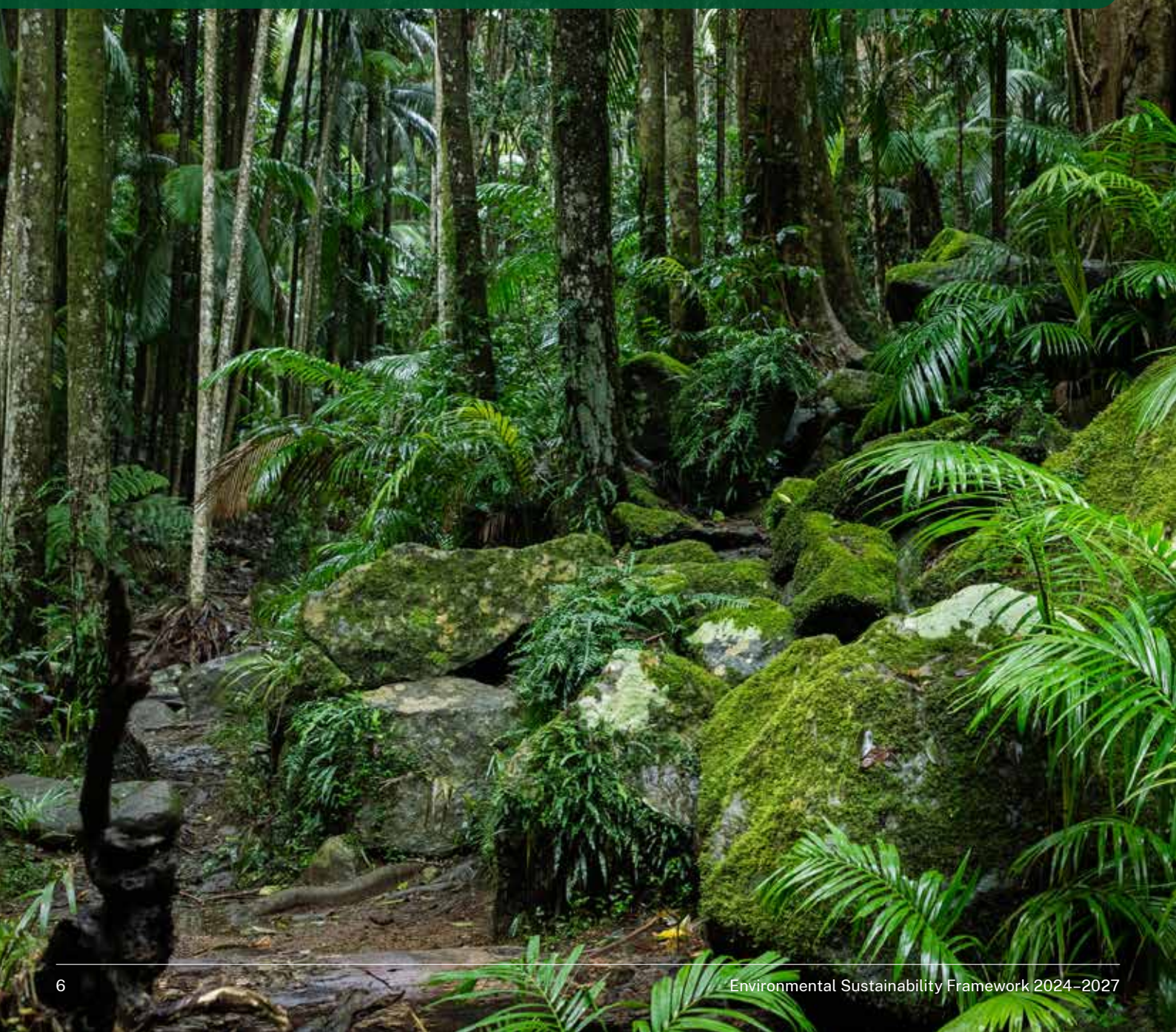
**Central Coast
Local Health District**

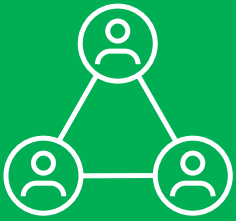# Our Environmental Sustainability Focus

Our Vision

Better health for everyone,
our environment, and our future

Our Goal

To provide high-quality, low-carbon, sustainable
healthcare services that our staff and community trust.

Sustainable Healthcare

Move towards innovative, high-value, low-carbon models of care that prioritise keeping people healthy, reduce demand and deliver care in the right place.

Energy & Water

Reduce our usage, improve resource efficiency and transition to renewable energy solutions.

Resource Recovery & Waste management

Value waste as a resource through improved segregation, reduce unecessary resource use and recycle to decrease waste ending up in landfill.

Travel & Transport

Contribute to reducing travel emissions by electrifying our fleet, low carbon methods of travel and reducing the need for unnecessary staff and patient travel.

Building & Infrastructure

Environmentally sustainable building design and infrastructure that also prepares for Climate Risk impacts on our facilities and service delivery.
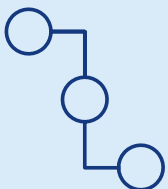
Supply chain

Collaborate to reduce supply chain emissions from purchased goods, services, and clinical products.

Enablers

Leadership and Governance
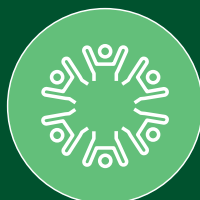
Our People

Our Partnerships

Our
Population

Environmental Sustainability at CCLHD

Our population on the Central Coast are from diverse backgrounds and face unique health challenges due to age, income, and where they live. Our population is mostly located along the coast, with farming communities to the west of the region. The Central Coast includes areas that are among the most disadvantaged in Australia [4]. This means our community is particularly vulnerable to Climate-sensitive health risks such as heat stress, respiratory, cardiovascular issues and mental health challenges [7] [8] [9].

CCLHD provides essential healthcare services across the Central Coast region of New South Wales, and covers an area of approximately 1,680square kilometres. Our main healthcare centres are at Gosford and Wyong, with a sub-acute facility in Woy Woy. There are Community Health Centres located throughout the region, in Erina, Kincumber, Lake Haven, Long Jetty, Woy Woy, Mangrove Mountain, Wyong Central, Wyong Kanwal and Toukley [4]. Additionally, CCLHD supports and partners with all of our Aboriginal community organisations.

By 2030, our demand for acute care is expected to exceed our current capacity if no steps are taken to reduce and manage future needs. This will place pressure on our health system, our environmental and financial resources [10].We can improve health outcomes for our patients, staff and community by reducing our carbon footprint through integrating environmental sustainability into our operations and services [11]. This includes adopting innovative, low carbon models of care that minimise unnecessary processes, procedures, and waste, expanding our telehealth and digital health services to improve patient access and reduce travel emissions, and prioritising community-based and preventative care to keep people well [12]. These high-value, low carbon initiatives not only support the health of our population, they support our District to meet our Net Zero targets.

Central Coast

Lake Haven
Toukley
Wyong
Mangrove Mountain
Long Jetty
Gosford
Erina
Woy Woy
Kincumber

KEY

🔴 Hospital with Emergency Department

🔵 Hospital without Emergency Department

◇ Healthcare Centre

○ Community Health

Lowering our carbon footprint improves health outcomes for our patients, staff and community.

Central Coast Local Health District
Climate Related Risks to Health and Wellbeing

Our Vulnerable Population is at Risk

20% of our population will be over 70 years old by 2041 [4]

4.9 % of Our population identify as Aboriginal and Torres Strait Islander [4]

Our population on the Central Coast region have a lower socioeconomic status than the NSW average [11]

5.8% of Our children are between 0-4 years of age [4]

4.4% of our population have 3 or more long-term health conditions

Exposure to Hazards

People and Health Systems will be increasingly exposed to climate-related hazards, such as:

Increasing heat

Bushfires

Flooding

Changes to rainfall

Storms

Air pollution

Climate risks to health, wellbeing, and health systems

Human health outcomes

Mental health

Infectious disease

Injury & mortality

Heart-related illness

Chronic & non-communicable disease exacerbations

Health System outcomes

Increased demand on health services

Disrupted health service delivery

Damage to health infrastructure
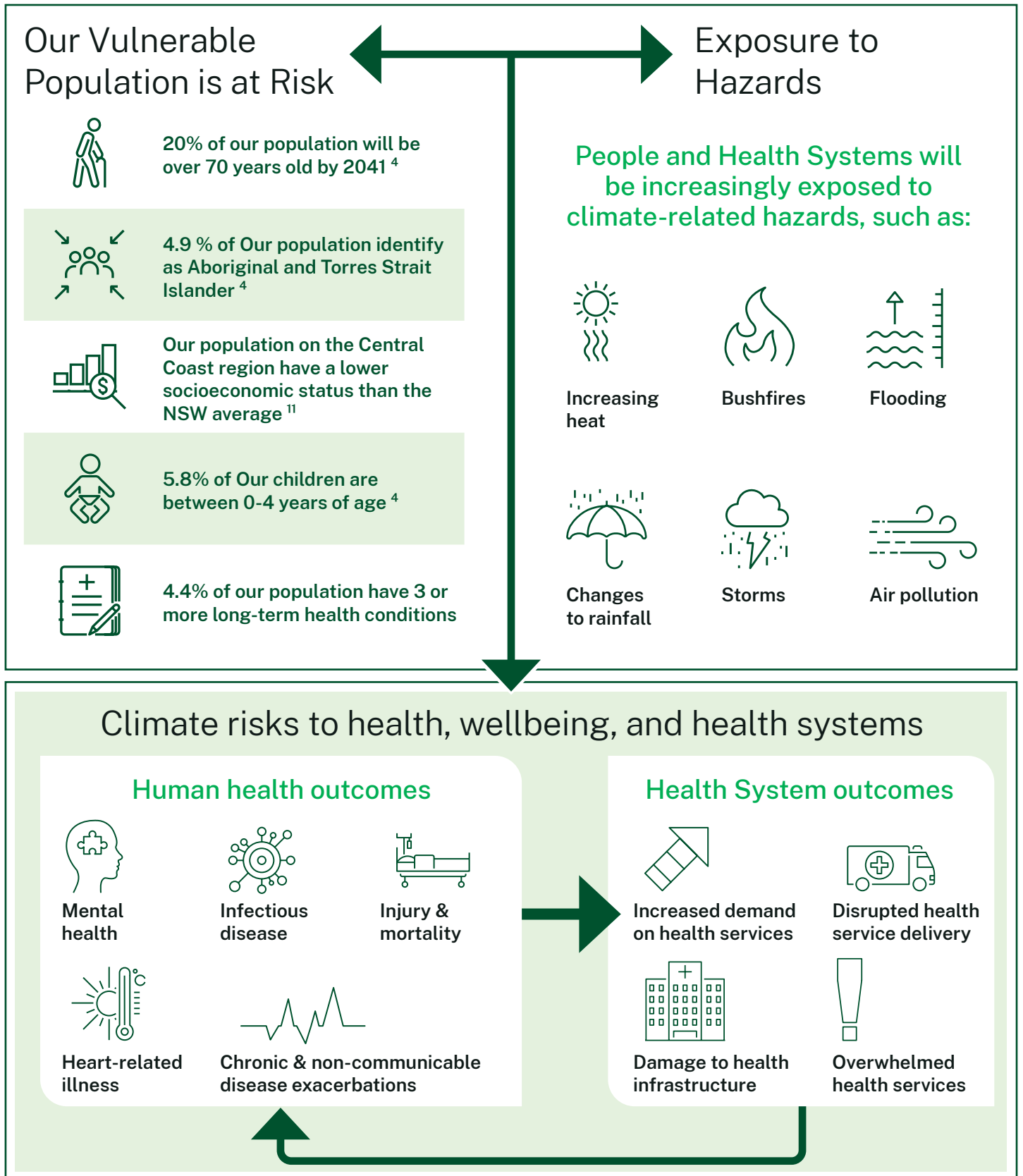
Overwhelmed health services

Figure 1.0

Climate change impacts the health and wellbeing of our vulnerable population

Our Environment

Climate Risk and what it means for us at CCLHD

Our Central Coast Local Health District is surrounded by scenic bushland, waterways, and oceans and has been cared for and walked upon by the Aboriginal peoples for generations.

The Central Coast area faces unique challenges due to our location, making our District one of the most vulnerable in the state to natural disasters such as storms, floods, bushfires, rising sea levels, and coastal erosion [13]. These physical Climate Risks, combined with an average projected temperature increase of more than 1°C by 2050 and more than 3°C in the far future, will lead to more hot days, rising sea levels and increased severe fire weather days [14] [15].These changes not only impact our health but also threaten our infrastructure, medical supplies, workforce, and the delivery and accessibility of healthcare services [16].

These changes in our climate, not only impact our people, but directly impact our organisation's ability to deliver timely, high-quality, patient-centred health services.

To combat these challenges, CCLHD is reducing our carbon footprint through mitigation actions such as electrifying our fleet [17],LED lighting upgrade and expanding our large scale solar project [18]. We will also look at ways we can adapt to integrate climate-resilience into Building and infrastructure [19] [20].

Figure 2.0

Projected changes Central Coast

Low-emissions scenario

Average temperature increase

↑**1.0°C**
2050

↑**1.2°C**
2090

Hot days per year will increase by:

4.3	5.0
2050	2090

Sea level will rise by:

19cm	39cm
2050	2090

Severe fie weather days per year will increase by:

0.7	0.5
2050	2090

High-emissions scenario

Average temperature increase

↑**1.7°C**
2050

↑**3.3°C**
2090

Hot days per year will increase by:

6.3	13.6
2050	2090

Sea level will rise by:

23cm	59cm
2050	2090

Severe fie weather days per year will increase by:

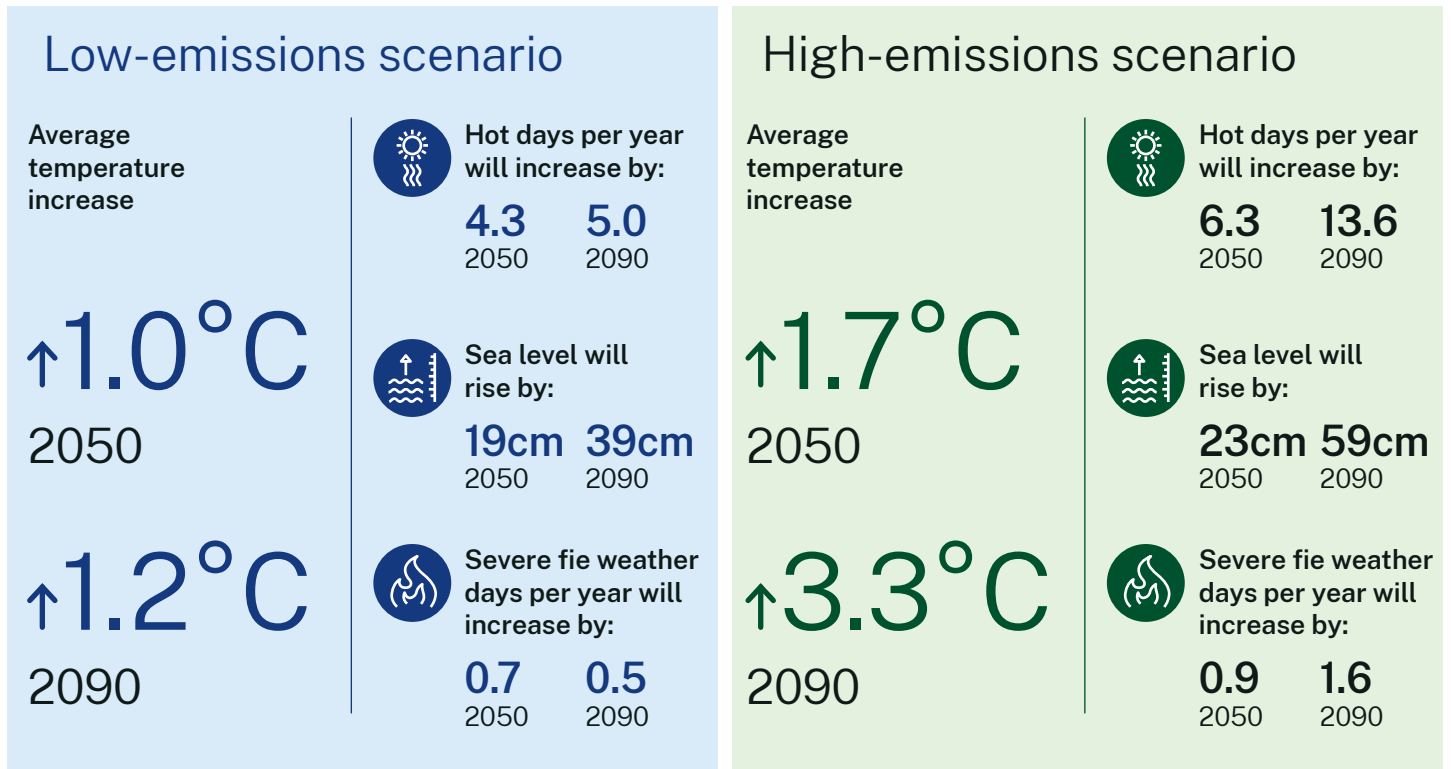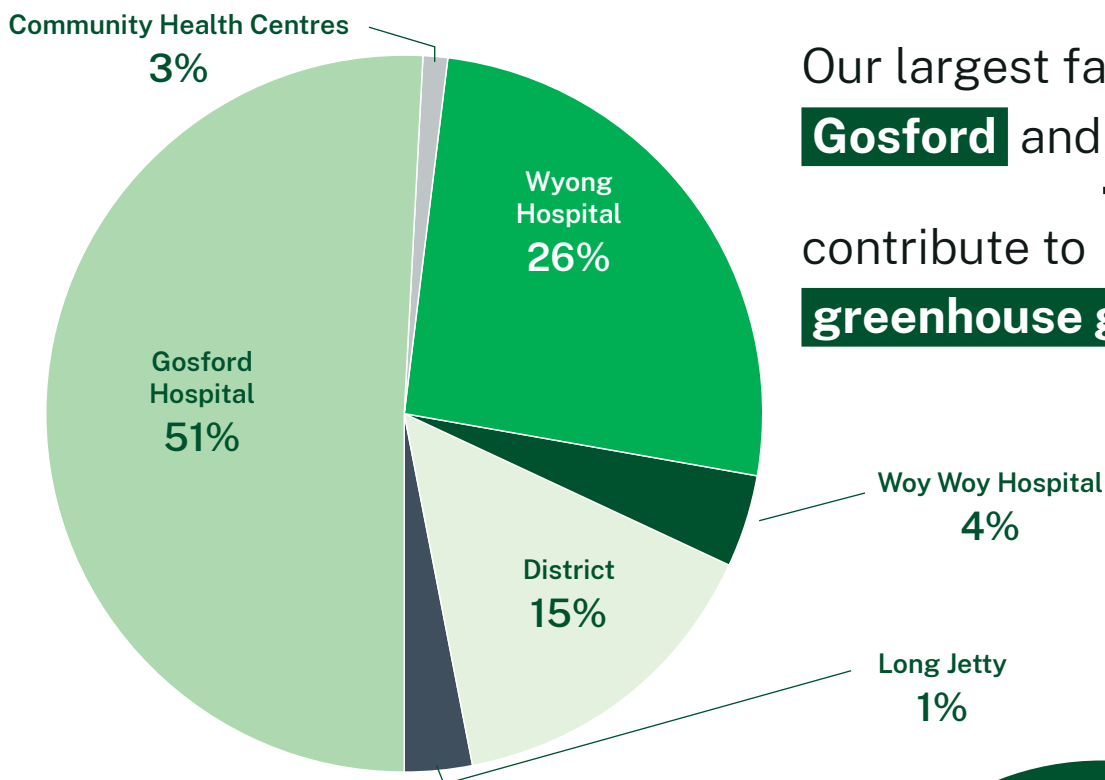| 0.9	1.6
2050	2090

Figure 3.0

Climate Change impacts our Organisations ability to deliver Healthcare services

Our Carbon Footprint

The Central Coast Local Health District (CCLHD) was one of the first statewide Local Health Districts to assess our carbon footprint in partnership with the NSW Office of Energy and Climate Change. Our CCLHD Net Zero Pathways [21], financial year 2021/22 carbon footprint document, is the sum of our total greenhouse gas emissions that come from our everyday activities, what we purchase and even how we move around.

Our CCLHD Carbon Footprint identifies opportunities to reduce emissions, waste and improve energy efficiency, and has shaped our *Environmental Sustainability Framework 2024-2027*.

Community Health Centres
3%

Gosford Hospital
51%

Wyong Hospital
26%

District
15%

Woy Woy Hospital
4%

Long Jetty
1%

Our largest facilities, **Gosford** and **Wyong** contribute to **77%** of our **greenhouse gas emissions**

CCLHD's total emissions for 2021/22 were **93,192 tonnes** of Carbon dioxide equivalent (CO2e)

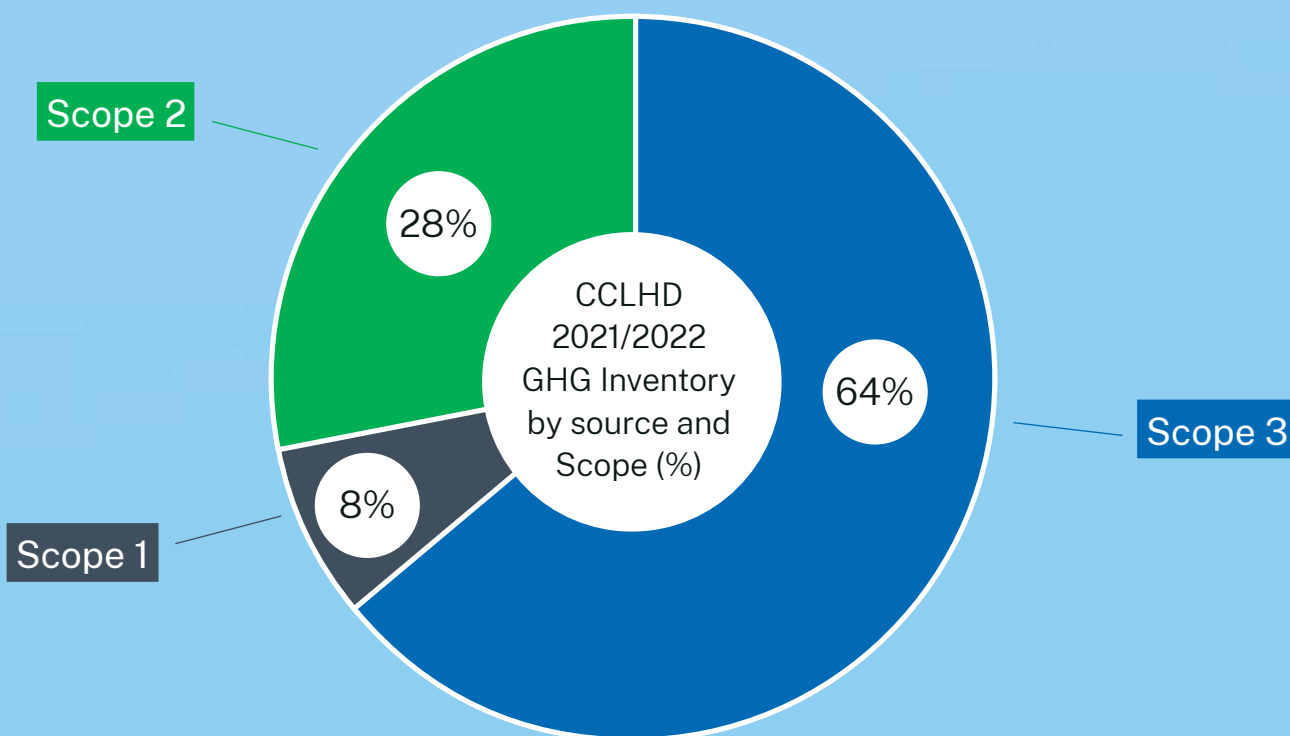Which is the same as approximately

3 million

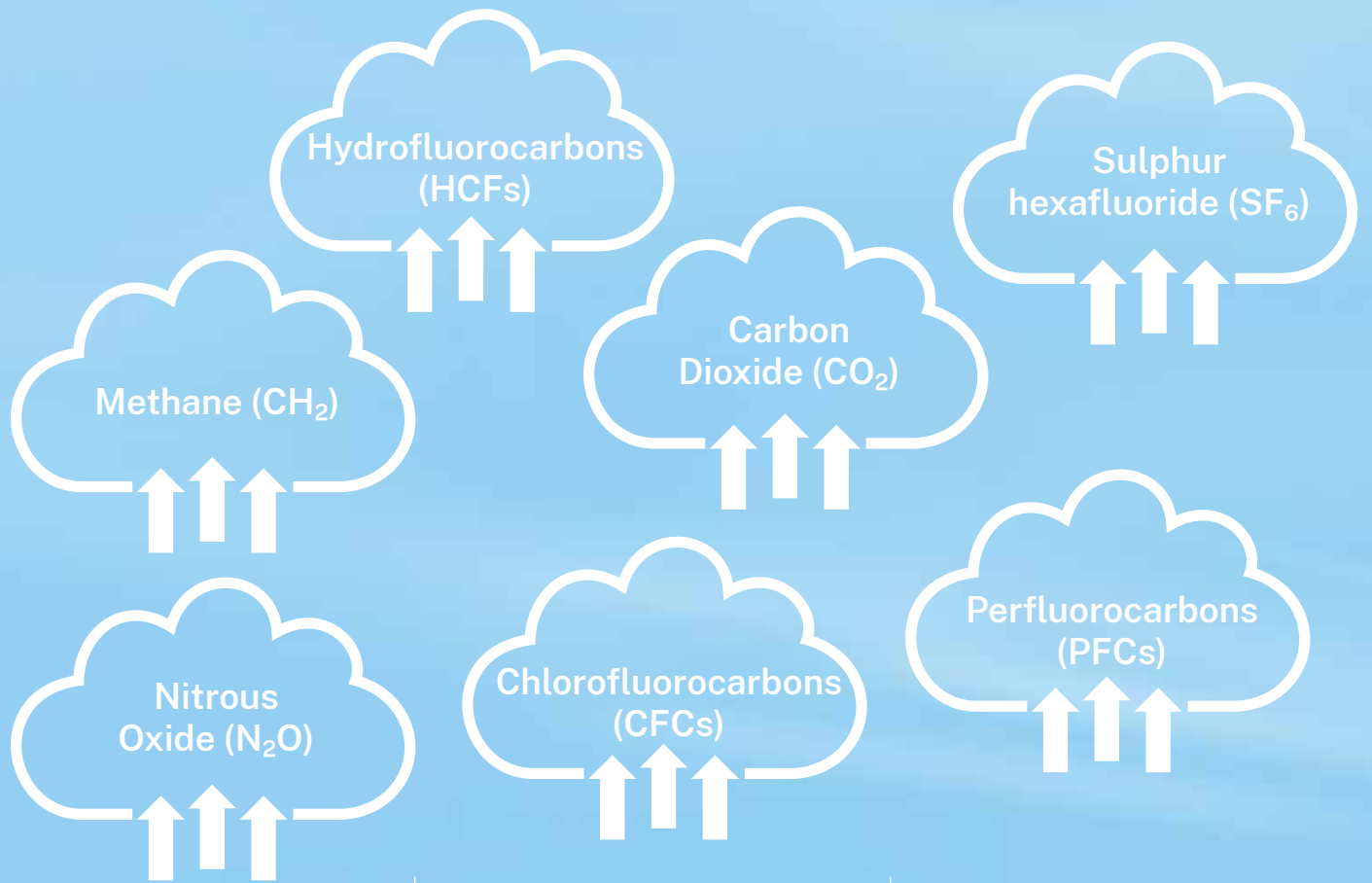round trips from **Gosford** to **Sydney** in a petrol car

NB: medium petrol car, 0.18kg Co2-e per km, Approx. 160km round trip. BEIS database ghg conversion factors 2022

Our CCLHD Net Zero Pathways carbon footprint document breaks down our greenhouse gas (GHG) emission sources into scope 1, 2, and 3 categories [21]. Scope 1 are direct GHG emissions from our fuel used in fleet, and unintentional (fugitive) emissions from refrigerants and medical gases such as Desflurane and Nitrous Oxide [22]. While scope 2 includes indirect emissions from purchased electricity to run our heating, cooling and lighting. Our indirect, scope 3 emissions are the largest and most complex scope across the whole of NSW Health. These indirect emissions include purchased supply chain goods and services, employee and patient travel and how we manage our waste.

Staff and organisational projects and initiatives will play an important role in reducing our emissions [23]. We need to reduce the total sum of our greenhouse gas emissions, across all three scopes to improve the health of our population and our environment.

Scope 2 — 28%

Scope 1 — 8%

Scope 3 — 64%

CCLHD 2021/2022 GHG Inventory by source and Scope (%)

Hydrofluorocarbons (HCFs)

Methane (CH_2)

Carbon Dioxide (CO_2)

Sulphur hexafluoride (SF_6)

Nitrous Oxide (N_2O)

Chlorofluorocarbons (CFCs)

Perfluorocarbons (PFCs)

8%

Scope 1

Direct emissions we own and control

- Natural Gas combustion 4%
- Diesel and Fleet Fuel 1%
- Medical gas emissions, from Desflurane and Nitrous oxide 1%
- HFC Refrigerant emissions 2%

28%

Scope 2

Indirect emissions from purchased electricity to operate, for example

- Heating and cooling
- Lighting

64%

Scope 3

All other indirect greenhouse gas emissions

- Staff, patient and visitor travel 13%
- Medical purchased goods and services, including pharmaceuticals 28%
- Capital goods 13%
- Other purchased goods and services 4%
- Waste and Water 3%
- Fuel and energy related activities 3%

Our Approach

We can prepare and adapt to the impacts of climate change, by focusing on our patients, staff and community and our ability to deliver high quality, low carbon healthcare services that are integrated and embedded into our existing processes and practices.

This will be achieved through our enablers: Leadership and Governance, Our People and Our Partnerships. Aboriginal and Torres Strait Islander Community Engagement and partnerships are an important component to our approach and are integrated across our enablers.

Our Enablers

» Leadership and Governance

- Organisational Commitment and Guidance
- Ownership and accountability
- Environmental sustainability integration into practices and policies
- Flexible response to changing legislation
- Effective reporting and data collection
- Existing Governance for approvals
- Transparency

» Our People

- Climate resilient and engaged workforce
- Education and capacity building
- Staff recognition and motivation
- Departmental leadership and innovation
- Incorporate Aboriginal and Torres Strait Islander staff
- knowledge and perspectives

» Our Partnerships

- Aboriginal partnerships across the District and community
- Funding opportunities with Government and Corporate entities
- Education and Industry partnerships
- Alliance with service providers and stakeholders
- Innovative collaborations
- Research grant opportunities and partnerships

Our Measurements

Sustainable Healthcare
(Triple bottom line)

Social (Health)

Sustainable Healthcare

Environmental

Financial

Data Collection

- Develop Scope 3 (supply chain, travel and waste) staff project and initiative tracker
- District-wide collaboration and data sharing
- Utilise Power BI to share energy and water data
- Annual financial year Carbon Footprint data collection and update

Reporting

- Align with District Annual Priority reporting
- Internal and external mandatory reporting frameworks- NSW Health Service agreement and Qualitative KPIs, Government Resource Efficiency Policy (GREP), Asset Management plan (AMP) & Strategic Asset management Plan (SAMP), Climate Risk Assessment
- Quarterly updates to Chief Executive, Executive Leadership Committee and District Leadership Forum

Monitoring and Evaluation

- Evaluate projects against the Sustainable Healthcare model, by demonstrating reductions in carbon and waste (environmental), return on investment (financial), and impact on healthcare (social).

Our Framework
Focus Areas
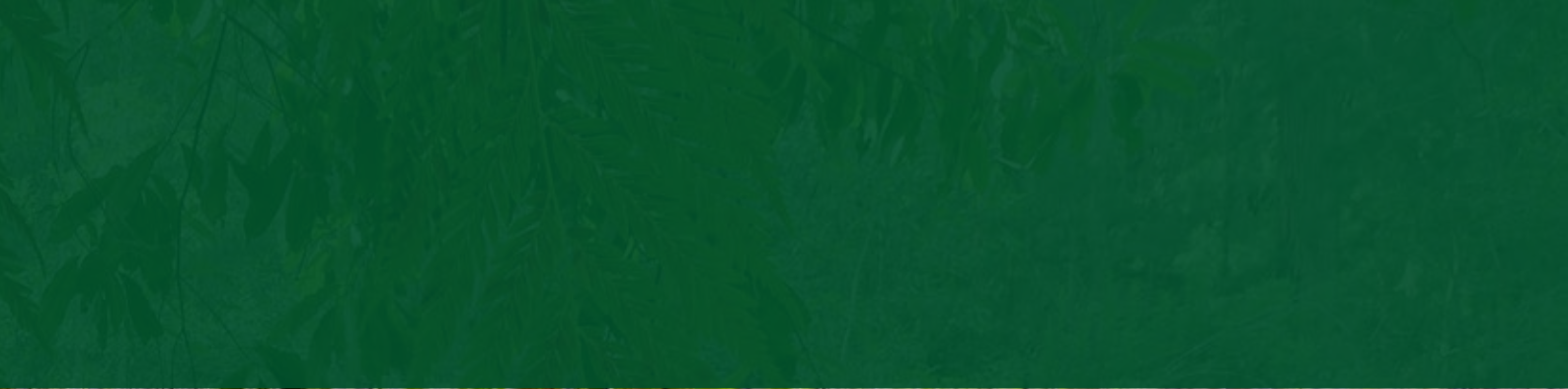
Sustainable Healthcare

Move towards innovative, high-value, low-carbon models of care that prioritise keeping people healthy, reduce demand and deliver care in the right place, to ensure our healthcare system is managed sustainably [24]. At a whole-of healthcare systems level, it is estimated that 10% of the care we deliver is harmful and 30% is considered low benefit [12][25].

Our Actions:

Minimise low benefit care

- Continue to reduce unnecessary testing and prescribing
- Reduce Nitrous Oxide use and consider decommissioning of legacy piping

Implement strategies to keep people healthy and out of hospital

- Deliver innovative, evidence-based health promotion programs across population health priority areas: healthy eating and active living, healthy ageing, healthy built environments, and alcohol, tobacco and e-cigarette harm prevention.
- Embed virtual care and telehealth options into existing services and models and care
- Provide more Care in the Community by expanding or using new models of care

Decarbonise high value care

- Collaborate and partner with our carbon hotspot departments that emit the most greenhouse gas emissions and waste, including Emergency, Operating Theatres, Intensive Care Unit and Pharmacy to support projects, initiatives and models of care that reduce our carbon footprint
- Integrate Environmental Sustainability and Climate Risk into quality improvement, research and innovation

Our Achievements

Women, Children and Families

Home Birthing Program, October 2023

Delivering safe, low carbon care in the community, which has reduced clinical waste by 2.7kg per birth, vs the same birth in the hospital, total 110kg clinical waste saved to date. This program has saved $10,500 in food and linen per month and approximately 10 car trips to Queensland in Nitrous Oxide use.
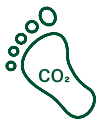
Emergency Department Wyong

'Gloves Off' CCLHD pilot, 2024

Project initiative from HNELHD to reduce unnecessary glove use, and improve patient safety

Emergency Department Wyong has reduced an estimated 30 tonnes Co2e and 600,000 gloves from landfill 2024-25, with an approximate projected financial savings around $34, 000

Allied Health

Spinal Pathway Triage Service RNSH – CCLHD Satellite Clinic Pilot Project.

Central Coast patients could attend a Gosford clinic, rather than travelling to RNSH. This program has saved approximately 1.3 tonnes of Co2e by reducing green house gas emissions from patient travel and by using telehealth for follow ups.

Pharmacy and Hospital in the Home

2024 Sustainable Futures Innovation Fund winner CADD Solis battery pumps

Reusable battery-operated ambulatory infusion pumps vs single use can save an estimated 5,000 single use pumps from landfill.

Pharmacy and Anaesthetics

Statewide Desflurane removal from formulary

District phase-out of harmful anaesthetic gases.

Energy & Water

Continue to strive in reducing our energy and water usage, improve resource efficiency, reuse and transition to renewable energy solutions [26].

Our Actions:

Reduce our energy use and resource efficiency

- Complete rollout of LED lighting upgrade District-wide
- Investigate the implementation of timers for lighting and heating, ventilation and air conditioning systems (HVAC) in non-clinical spaces
- Consider purchasing equipment with at least market average Green Star rating
- Consider conducting energy and water audits to support preventable and unnecessary usage, failures or leakages
- Reduce our water usage, installing and replacing fixtures and fittings with market average Water Efficiency Labelling and Standards (WELS) ratings
- Improve energy data sharing across the District

Transition to Renewable Energy solutions

- Installation Wyong solar target delivery to December 2025
- Seek further opportunities to install renewable energy, including large scale solar
- Identify opportunities to host onsite renewables that benefit the community
- Explore funding opportunities through partnerships in public and private sectors

Our Achievements

	Capital Works and Asset Management	**Large scale solar Gosford**
	Capital Works and Asset Management	**Expansion of four dual Electric Vehicle chargers (EVC) for Gosford Fleet**
	Capital Works and Asset Management	**Further six Electric Vehicle chargers (EVC) installed at Wyong**
	Capital Works and Asset Management	**District LED lighting program 40% completion to date**
	Lake Haven Renal Unit and Capital Works and Asset Management	**Reverse osmosis water reuse, Lake Haven Dialysis Unit saved 146,000L of water and more than 50kg Co2e FY23**

Resource Recovery & Waste management

Value waste as a resource through improved segregation, reducing unnecessary resource use and recycle to decrease the volume of waste ending up in landfill, in line with the NSW Waste and Sustainable Materials strategy 2041 [27].

Our Actions:

Encourage waste reduction projects across the District

- Support projects that 'Reduce waste in the first place' across our District and follow the waste hierarchy

Improve our current general and co-mingled recycling waste segregation practices

- Implement non-clinical co-mingled recycling and reduce individual office bins in non-clinical areas

Divert waste from landfill

- Implement District food (organics) waste stream in collaboration with HealthShare

Develop partnerships with local and statewide waste organisations

- Partnership development between Government and local organisations: HealthShare NSW, EPA, BinTrim, statewide waste contractor, Central Coast Council and local micro-recyclers
- Seek new opportunities for funding and partnerships, focusing on supporting local businesses

Improve Governance, Education and waste reporting

- Establish data collection and reporting mechanisms District wide and with NSW Health and HealthShare
- Expand on District wide education and training, collaborate with the Environmental Sustainability Officer (ESO) for education opportunities at the Environmental Sustainability Staff Forum and Environmental Sustainability Community of Practice (ES CoP) webinars

Our Achievements

	Waste and Environmental Services	Eco-Batt battery recycling stewardship program has saved 320kg batteries from landfill, FY24
	Waste and Environmental Services, Emergency Department Wyong and Operating Theatres Gosford and Wyong	District Baxter PVC recycling program has saved almost 1.4 tonne of intravenous fluid bags from landfill in 1 year, FY24
	Waste and Environmental Services	Every mattress ordered since 2023 is now recycled through the Forte Healthcare's 'Triple R Scheme' Return, Re-purpose, Reuse program.
	Medical Day Unit	Medical Day Unit (MDU) reusable Daisy-grip torniquets saved approximately 1,950 single use torniquets from landfill in 1 year and $1,290
	Waste and Environmental Services and Environmental Sustainability	CCLHD successful recipient for the EPA Bin Trim Equipment Rebate Program, 2024. A co-contribution rebate to purchase equipment to reduce waste from landfill.
	Divert waste from landfill	Implement balers to source separate and recycle sterile wrap in our Gosford and Wyong Operating Theatres as part of the NSW Environment Protection Authority (EPA) Bin Trim Equipment Rebate Program.

Travel & Transport

Contribute to reducing travel emissions by electrifying our fleet, encouraging low carbon methods of travel such as increasing public transport use and active travel. Reduce the need for unnecessary staff and patient travel through low carbon models of care such as digital and telehealth, and minimising business travel where appropriate.

Our Actions:

Reduce our carbon emissions

- CCLHD will ensure all new government passenger vehicle fleet purchases will be Electric Vehicles (EV) by 30 June 2030, with an interim target of 50% EVs by 30 June 2026.
- Support development of low carbon models of care that consider integration of service provision that reduces the need for staff and patient travel

Promote active and low carbon staff travel

- Encourage innovative, low carbon modes of transport for staff
- Provide sufficient bike storage and showers
- Support novated leasing opportunities-E-bikes and Electric Vehicles

Implement low carbon models for business travel

- Review opportunities for sustainable flights and accommodation
- Review opportunities for hotel bookings with National Australian Built Environment Rating System (NABERS) rating 5 or above
- Encourage virtual meetings and conferences in lieu of face to face when operationally appropriate

Our Achievements

District Fleet

Our District Fleet

Our Fleet has 10 Electric vehicles (EV) which has saved 19 tonnes of Co2e (FY23-24) vs using a petrol car

Our Fleet has 210 Hybrid vehicles total: 61% of our passenger fleet

Healthy Built Environments

Active Travel, staff bike parking capacity

Gosford has 8 staff bike parking spaces

Wyong has 13 staff bike parking spaces

Finance and Corporate Services and Health Promotion

E-Bike Salary packaging promotion

Medical Imaging

Community mobile X-ray van service.

Has saved approximately 6 tonnes of Co2e per year in patient transport fuel emissions, with 2,400 return trips saved in patient travel and time

Building & Infrastructure

Environmentally Sustainable building re-developments that incorporate energy and carbon efficient designs, and Infrastructure that also prepares for Climate Risk impacts on our facility and service delivery.

Our Actions:

Climate Risk and Adaptation

- Develop Climate Risk assessment and Adaptation plan in line with Government guidelines

Embed industry standards for sustainability into capital works projects

- Ensure new buildings, including tenancies comply with National Australian Built Rating System (NABERS) and Green STAR energy efficiency ratings
- Consider reuse and recycled content for refurbishment and redevelopment, in line with industry standards
- Incorporate modern building and infrastructure standards into current practices, such as using paints that have a reduced amount of volatile organic compounds (low VOC)
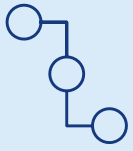
Redevelopment

- Environmental Sustainability and Waste representatives on redevelopment committees.
- Partner with Health Infrastructure (HI) to ensure compliance with latest Government legislation, building, energy and waste practices and adopt these where financially feasible
- Consider integration and accessibility to green spaces
- Incorporate Aboriginal and Torres Strait Islander local and ecological knowledge into re-development co-design and planning

Our Achievements

- **Wyong Hospital redevelopment**

- **Gosford and Wyong Safe Haven, 2023**

- **Urgent Care Service, Long Jetty Community Health Centre, 2024**

Supply chain

Collaborate to reduce supply chain emissions from purchased goods, services, and clinical products.

Our Actions:

Partnership Development

- Partner with suppliers to work towards reducing carbon emissions through the products and services they provide
- Collaborate with HealthShare NSW, NSW Pathology & eHealth to encourage large scale procurements align with environmental sustainability responsibilities

Identify interventions to reduce supply chain emissions

- Consider increasing bulk purchases and delivery

Clinical Products and medical supplies

- Consider low carbon or recyclable clinical product substitutes
- Consider partnering with NSW Health and suppliers to generate less or alternate packaging in line with *Australia's National Packaging Targets, 2025*[28]

Our Achievements

- **Environmental Sustainability criteria included on CCLHD tender evaluation assessments**

Glossary

Asset Items owned and controlled by an organisation including, but not limited to, buildings, medical equipment, technology systems, and intellectual property.

Carbon Dioxide (Co2) A greenhouse gas contributing to global warming and climate change.

Carbon/emissions hot spots Processes or activities within an organisation that are significant sources of greenhouse gas emissions. This can include departments such as Intensive Care, Emergency and Operating Theatres.

Carbon footprint The total sum of an organisation's greenhouse gas emissions, that are generated by their actions and measured to provide a starting point against which future emissions performance will be measured.

Circular economy An economic model focused on minimising waste and keeping resources in use for as long as possible by reusing, repairing, refurbishing, and recycling existing materials and products. In the healthcare sector, this can involve sustainable procurement practices, waste management strategies, and initiatives to extend the lifecycle of medical equipment and supplies.

Climate adaptation Actions taken to adjust to current or expected changes in the climate. In the healthcare sector, this might involve modifying infrastructure, services and practices to cope with health impacts of climate change, such as heatwaves, extreme weather events, and changes in disease patterns.

Climate change A change in the average weather patterns, that are measurable over a long period of time. Climate change alters the composition of the global atmosphere over and above natural climate variability observed over comparable time periods.

Climate mitigation Actions taken to reduce or prevent the emission of greenhouse gases, aiming to limit the magnitude of future global warming. In the healthcare sector, this could include energy efficiency measures, transitioning to renewable energy sources, and reducing waste.

Climate Resilience the ability to prepare for, recover from and adapt to the impacts of climate change

Climate Risk is a risk caused by a changing climate and is divided into transitional risks and physical risks such as bushfires, flooding and drought.

Desflurane A potent greenhouse gas used as an inhalational anaesthetic

Energy efficiency Reducing the amount of energy used for a given service or level of activity in order to produce the same level of service to end users. Energy efficiency improvements are predominantly achieved by using more technologically-advanced equipment. For example, using compact fluorescent light globes reduces the amount of electricity required for lighting

Global Green and Healthy Hospitals (GGHH) An international network of hospitals, health care facilities, health systems, and health organisations dedicated to reducing their environmental footprint and promoting public and environmental health.

Government Resource Efficiency Policy (GREP) Australian policy framework aimed at improving the efficiency and sustainability of government operations, including energy and water use, waste production, and resource management.

Greenhouse Gas (GHG) emissions Gases that trap heat in Earth's atmosphere, contributing to global warming and climate change. They include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). Emissions from these gases are aggregated into carbon dioxide equivalents (CO_2-e) using their global warming potentials.

Green power Electricity generated from renewable sources such as solar, wind, and hydro, that have a lower environmental impact compared to fossil fuels.

Green Star rating Green Building Council of Australia (GBCA) launched Green Star ratings in 2003. Is Australia's largest voluntary sustainability rating system for buildings, fit outs and communities. With ratings ranging from 4 to 6 stars, it evaluates sustainability across various stages of a project's life cycle, including planning, design, construction, fit-out, and ongoing operation.

Green washing The practice of making misleading or unsubstantiated claims about the environmental benefits of a product, service, or company to present an environmentally responsible public image.

High-value care Healthcare services that provide significant benefits to patients, focusing on interventions that are evidence-based and necessary, with good resource utilisation.

Low-value/harmful care Healthcare services that provide little or no benefit, or even cause harm to patients.

National Australian Built Environment Rating System (NABERS) A system that rates the energy efficiency of

buildings in Australia across energy, water, waste, and indoor environment.

Net Zero Net zero means cutting carbon gas emissions to as close to zero as possible. It's a balance between emissions and absorption and will be reached when the amount of carbon we add to the atmosphere is no more than the amount removed

Renewable energy is Energy produced from renewable resources, such as wind, solar, geothermal energy and biofuels.

Science Based Targets initiative (SBTi) Defines and promotes best practice in emissions reductions and net zero targets in line with climate science.

Scope 1 emissions Direct greenhouse gas emissions from operations that are owned or controlled by an organisation. For example, fuel burned on-site, fugitive emissions from refrigerants and medical gases.

Scope 2 emissions Indirect greenhouse gas emissions from the generation of purchased or acquired electricity consumed by an organisation.

Scope 3 emissions All other indirect greenhouse gas emissions that occur in an organisation's value chain, including both upstream and downstream emissions. For example, all purchased products and services, waste, staff and patient commute, business travel, pharmaceuticals, repairs and maintenance.

Sustainable Healthcare A system that meets the health needs of the present, without compromising the health of future generations. It requires a balanced recognition of the three pillars of sustainability, also known as the triple bottom line: Social, economic and environmental impacts

Glossary adapted from the Northern Sydney Local Health District Planetary Health Framework 2024-2027.

References

1. NSW Health. NSW Health Climate Risk and Net Zero Unit: Position Statement. In: Climate Risk and Net Zero Unit, editor. 2022.

2. Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. The Lancet Planetary Health. 2018;2(1):e27-e35.

3. NSW Health. Future Health; Guiding the next decade of care in NSW 2022-2032. In: NSW Ministry of Health, editor. 2022.

4. Central Coast Local Health District. Clinical Services Plan 2023-2028. 2023.

5. NSW Health. Draft Net Zero Roadmap 2024-2030. In: Climate Risk and Net Zero Unit, editor. 2024.

6. Department of Health and Aged Care. National Health and Climate Strategy. In: Department of Health and Aged Care, editor. 2023.

7. Horton R, Lo S. Planetary health: a new science for exceptional action. The Lancet. 2015;386(10007):1921-2.

8. Wen B, Wu Y, Xu R, Guo Y, Li S. Excess emergency department visits for cardiovascular and respiratory diseases during the 2019-20 bushfire period in Australia: A two-stage interrupted time-series analysis. Sci Total Environ. 2022;809:152226.

9. Rocque RJ, Beaudoin C, Ndjaboue R, Cameron L, Poirier-Bergeron L, Poulin-Rheault R-A, et al. Health effects of climate change: an overview of systematic reviews. BMJ open. 2021;11(6):e046333.

10. Ademi Z, Zomer E, Marquina C, Lee P, Talic S, Guo Y, et al. The hospitalizations for cardiovascular and respiratory conditions, emergency department presentations and economic burden of bushfires in Australia between 2021 and 2030: a modelling study. Current Problems in Cardiology. 2023;48(1):101416.

11. Central Coast Local Health District. Caring for the Coast Strategy 2019-2024. 2019.

12. Barratt AL, Bell KJ, Charlesworth K, McGain F. High value health care is low carbon health care. The Medical Journal of Australia. 2022;216(2):67.

13. NSW Government. State Disaster Mitigation Plan 2024-2026. In: NSW Reconstruction Authority, editor. 2024.

14. NSW Government. Central Coast Climate Change snapshot. In: NSW Office of Environment and Heritage, editor. 2014.

15. NSW Government. NARCliM2 Central Coast Climate Change Snapshot. In: Department of Climate Change Energy the Environment and Water DCCEEW, editor. 2024.

16. Department of Planning Industry and Environment. Climate Risk Ready NSW Guide. In: Department of Planning Industry and Environment, editor. 2020.

17. NSW Government. NSW Electric Vehicle Strategy. In: Department of Planning Industry and Environment, editor. 2021.

18. Department of Planning Industry and Environment. Net Zero Plan Stage 1: 2020-2030. In: DPIE, editor. 2020.

19. NSW Government. NSW Climate Change Adaptation Strategy In: NSW Government, editor. 2022.

20. Australian Government. National Climate Resilience and Adaptation Strategy 2021-2025. In: Department of Agriculture Water and Environment, editor. 2021.

21. Point Advisory an ERM Group company. Net Zero Pathways Central Coast Local Health District. In: NSW Office of Energy and Climate Change, editor. 2023.

22. Charlesworth M, Swinton F. Anaesthetic gases, climate change, and sustainable practice. The Lancet Planetary Health. 2017;1(6):e216-e7.

23. Mortimer F, Isherwood J, Wilkinson A, Vaux E. Sustainability in quality improvement: redefining value. Future healthcare journal. 2018;5(2):88-93.

24. Charlesworth KE, Jamieson M. New sources of value for health and care in a carbon-constrained world. Journal of Public Health. 2017;39(4):691-7.

25. Braithwaite J, Zurynski Y, Carolynn K. Routledge Handbook of Climate Change and Health System Sustainability: Routledge; 2024.

26. State of NSW and Office of Environment and Heritage. NSW Government Resource Efficiency Policy. In: NSW Office of Environment and Heritage, editor. 2019.

27. NSW Government. NSW Waste and Sustainable Materials Strategy 2041. In: Department of Planning Industry and Environment, editor. 2021.

28. Department of Climate Change Energy the Environment and Water DCCEEW. 2025 National Packaging Targets 2024 [Available from: https://www.dcceew.gov.au/environment/protection/waste/packaging/2025-national-packaging-targets

Figure

Figure 1.0 Based on material from Commonwealth of Australia (Department of Health and Aged Care). (2023). *Climate Related Risks to Health and Wellbeing* in National Health and Climate Strategy, p. 24. Adapted under Creative Commons Attribution 4.0 International Public License. Available at https://creativecommons.org/licenses/by/4.0/legalcode

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