



Health
Hunter New England
Local Health District

SUSTAINABLE HEALTHCARE

Together Towards Zero **2030**

Dr Ramsey Awad

Executive Director Infrastructure, Planning & Sustainability

acknowledgement of country

Our Team would like to acknowledge and pay our respects to the Aboriginal & Torres Strait Islander Peoples as the Traditional Custodians of the Land, Rivers and Sea.

We acknowledge and pay our respects to Elders; past, present & emerging of all Nations.



why a green vision ?

25%

of all human disease and death in the world is attributed to environmental factors and for children, the rate is 36%

Australian communities are feeling the impact of Climate Change as experienced with our extreme weather events

The provision of healthcare in Australia produces 7% of Australia's total CO2e emissions

Because the health of our patients is at risk Planetary Health is now part of our core business

We need to be able to say that as an organisation -

We do no harm

our green vision



Being carbon and waste neutral by 2030.



Reduce our environmental impact while continuing to focus on Excellence - every patient, every time.



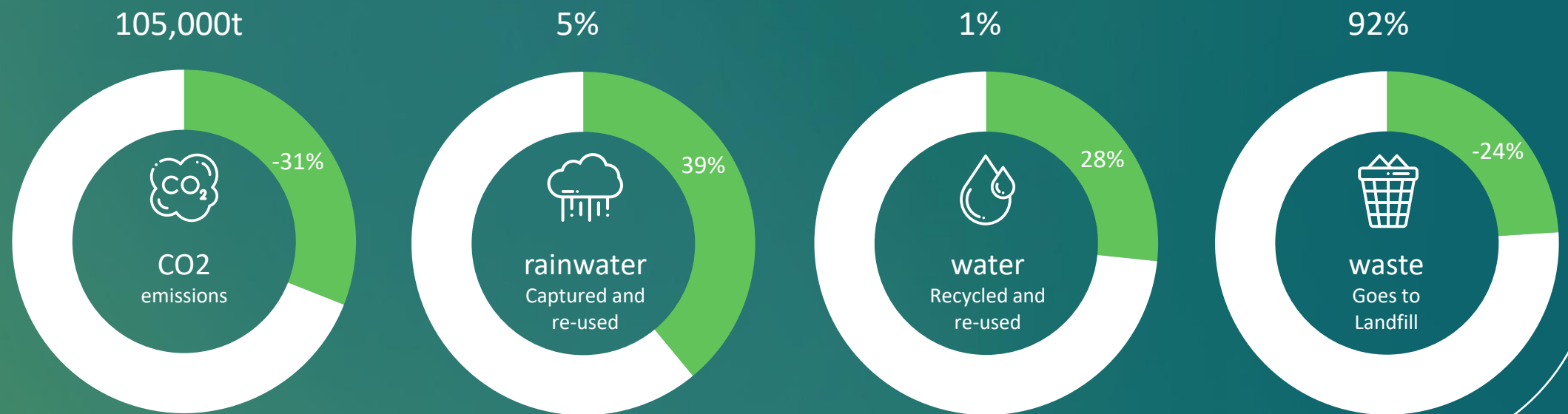
Display public leadership and drive change in the market.



our targets & performance - year 3

2020
BASELINE

● 2023



2023

75,067t

39%

28%

76%

2023

30%

30%

30%

30%

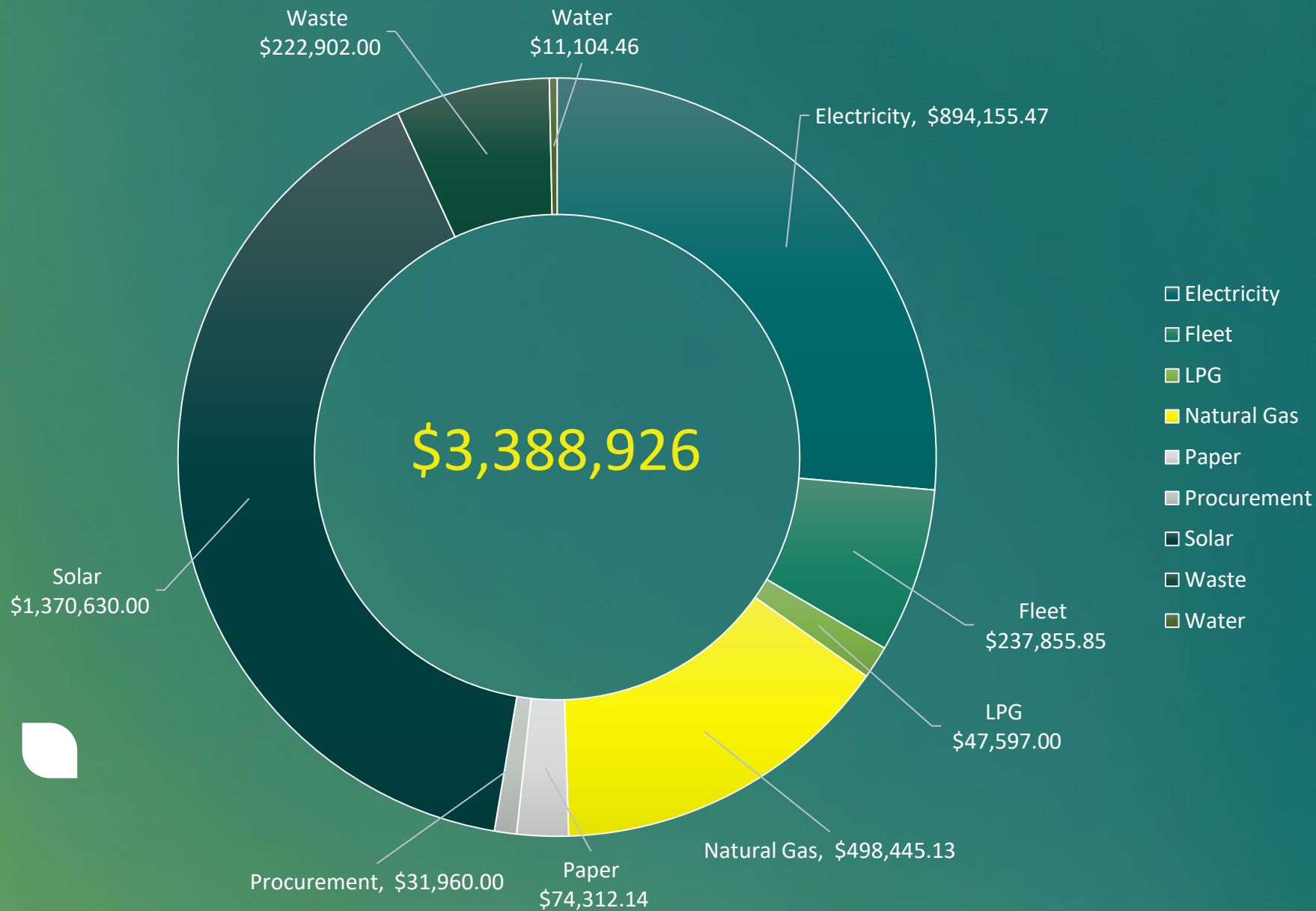
TARGET

DECREASE

INCREASE

INCREASE

DECREASE



2023 recurrent savings



Energy



1

Water



2

Transport



3

our focus

6



Waste

5



Procurement

4



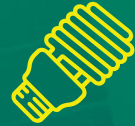
Infrastructure

Our energy

Current Strategies



Solar panel installations across all HNE Health Facilities



LED and sensory lighting upgrades at all HNE Health Facilities



Ground mounted solar



Batteries



Site Sustainability

56
Total Sites

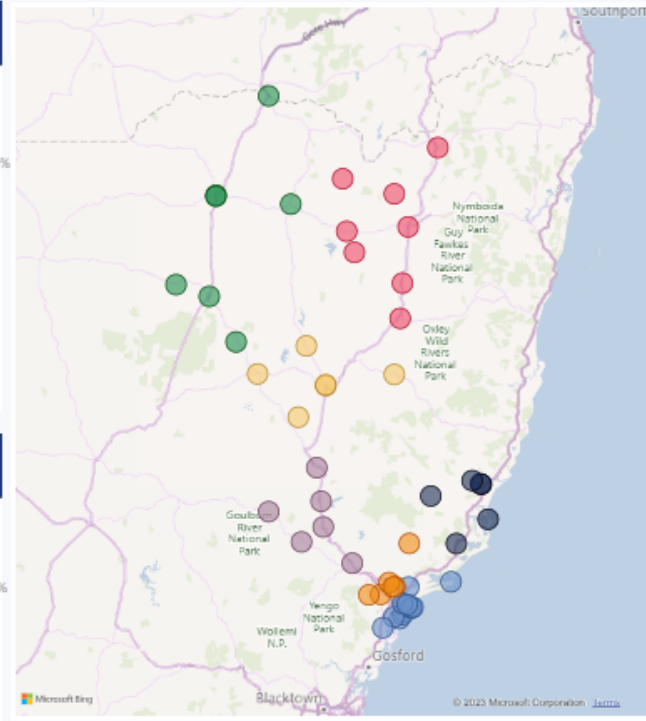
Sector Site

Solar		Entire District	
<input type="checkbox"/> Current	35 Facilities	7,249 kWp System Size	\$2,217,587 11,672 MWh Estimated Savings
<input type="checkbox"/> 2023	21 Facilities	1,604 kWp System Size	\$155,133 1,488 MWh Estimated Savings pa
<input type="checkbox"/> 2024	18 Facilities	2,000 kWp System Size	\$522,196 6,871 MWh Estimated Savings pa

Totals

35 out of **56** Sites with Solar

7,249 kWp Total System Size
\$2,217,587 Total Savings pa



District Site Map

As of November 2023

LED		Entire District	
<input type="checkbox"/> Current	20 Facilities	TBD System Size	\$566,034 1,957 MWh Estimated Savings
<input type="checkbox"/> 2023	11 Facilities	TBD System Size	\$265,549 3,503 MWh Estimated Savings pa
<input type="checkbox"/> 2024	27 Facilities	TBD System Size	\$671,828 Estimated Savings pa

Totals

20 out of **56** Sites with LED

TBD Total System Size
\$566,034 Total Savings pa

Energy Project Progress

LED Lighting District Snapshot

2023 Installations

Completed Installs	20 Sites
Energy Consumption Reduction	80%
Total Annual Savings	\$701,135.24
Average Payback Period	1.35 Years

2024 Installations

Upcoming Installs	12 Sites
Projected Energy Consumption Reduction	82%
Projected Annual Savings	\$265,188.84
Average Projected Payback Period	1.42 Years

Total LED Savings

Energy Consumption Reduction	80%
Annual Savings	\$966,324.08
Average Payback Period	1.38 Years



our water

Current Strategies



Establish infrastructure to capture and reuse rainwater across all HNE Health facilities



Capture and reuse of water through reverse osmosis across all HNE Health facilities with a focus on Renal Dialysis units



Implementation of low-flow fixtures



Reduce water waste through leak detection and repair



Water Tank

Installed in 2023: **5** Facilities

Total District: **22** Facilities

Scoped for 2024: **26** Facilities


Reverse Osmosis

Installed in 2023: **2** Facilities

Total District: **11** Facilities

Scoped for 2024: **2** Facilities

Water Project progress



OVERVIEW EMISSIONS SITES SOLAR

Site Sustainability

📋 **56**
Total Sites

Sector: ▼
All ▼

Site: ▼
All ▼

Water Tanks

Entire District

Site Name	Capacity
Belmont Hospital	56,000 L
Bingara District Hospital	15,000 L
Emmaville Multi-Purpose Service (Vegetable Creek)	447,000 L
Gloucester Soldiers Memorial Hospital	26,000 L
Inverell District Hospital	20,000 L
John Hunter Hospital and Rankin Park Hospital	30,000 L
King Edward House - Hunter Brain Injury Service	2,000 L

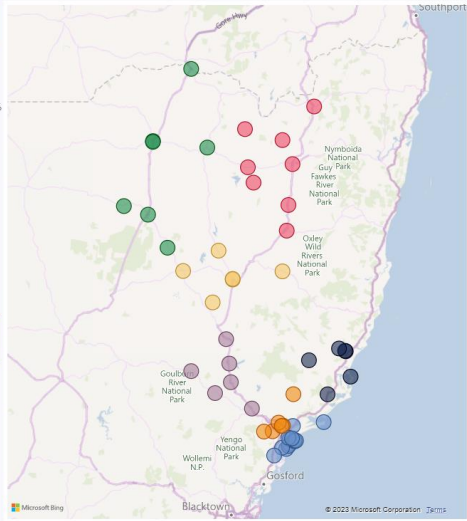
Totals

22 out of **56** 61%

Sites with Water Tanks

1,100,000 L

Total Water Tanks Size



District Site Map

Reverse Osmosis

Entire District

Site Name	Renal Dialysis	Reverse Osmosis
Armidale New England Hospital	✔	✔
Forster Community Health Centre	✔	✔
Inverell District Hospital	✔	✔
John Hunter Hospital and Rankin Park Hospital	✔	✔
Manning River Base Hospital	✔	✔
Moree Hospital	✔	✔
Muswellbrook District Hospital	✔	✔

Totals

13 out of **15** 87%

Sites with RO

13

Sites with Renal Dialysis

15

Sites with Reverse Osmosis

our transport

Current Strategies



Move HNE Health fleet vehicles to electric



Charging infrastructure EV available for fleet and public use.



Introduction of e-bikes into fleet and Hospital in the home, replacing fleet vehicles



Salary sacrifice of e-bike



Our transport



Introduction of e-bikes into fleet and Hospital in the home, replacing fleet vehicles

WHO

Colleagues within the population health department

WHAT

Integrating an e-bike as part of their fleet for staff to travel for work

WHERE

Based at Wallsend campus – along safe, approved routes

HOW

Approvals from WH&S and policy



our transport

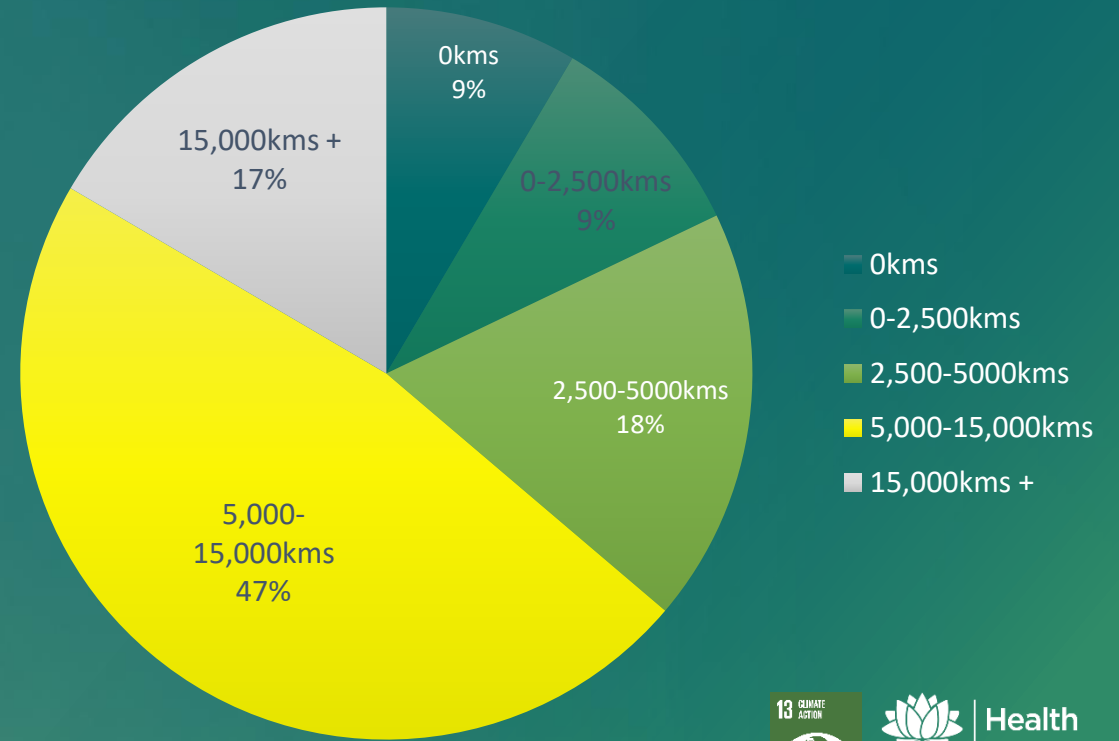
Fleet data – 1083 cars – 11% Hybrids – 1% Electric

Fleet Numbers



2023
1083 Vehicles
-28% from baseline

District Breakdown



our transport

Service delivery through Telehealth

2023 to date	Total Number of Telehealth Appointments	Total Number of Telephone Appointments	Total Telehealth Distance Saved - Km	Days Away from Home Costs Saved Using Telehealth - Patient and Carer	Total Tonnes of Carbon Emissions Saved Using Telehealth
District wide	23,214	280,630	364,0974 kms	\$3,091,921	1,025 Tonnes

- Telehealth/virtual care – how do we maximise on this service.
- Rethinking our models of care how do we improve on clinical care integrating sustainability as a factor.

Our infrastructure strategies

Current infrastructure projects developed at a minimum 5 green star rating.



JHHIP



Stage 2 Manning Hospital



Banksia Unit Tamworth



Eating Disorder Clinic



Stage 3 Muswellbrook



Moree Hospital



Glenn Innes Hospital



Gunnedah Hospital



Cessnock Hospital

our waste

Current Strategies



Develop recycling strategies, targets and implementation plans for all waste streams



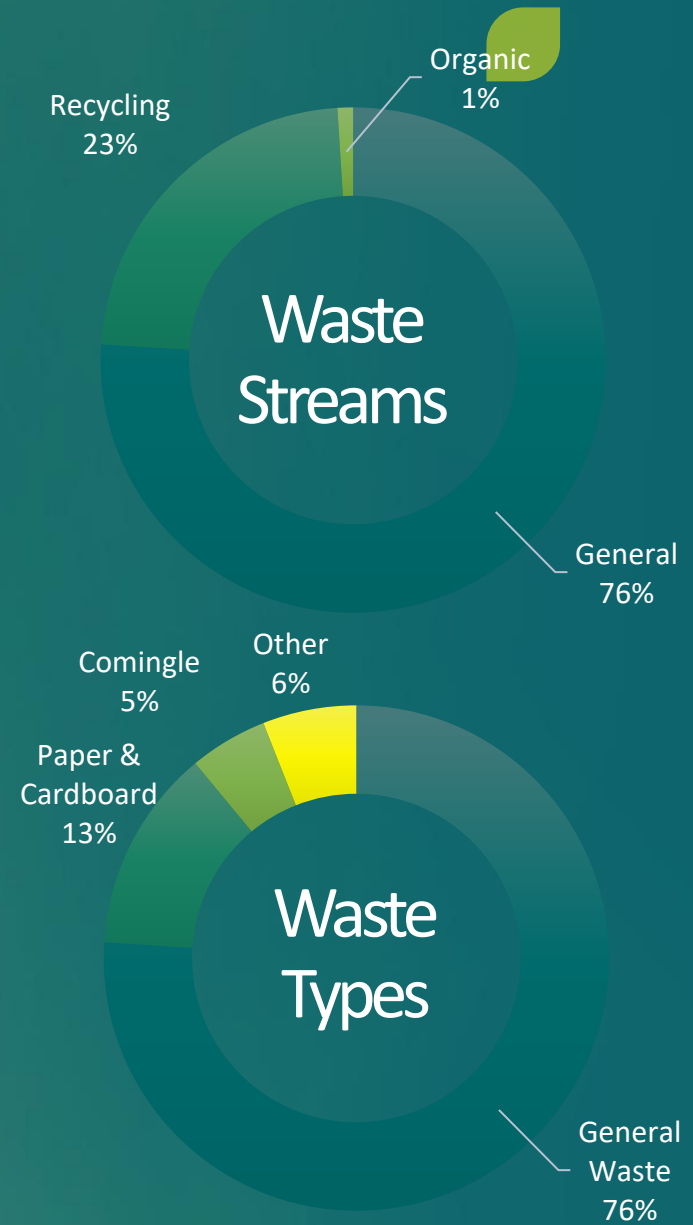
Develop and embed recycling innovation and a circular economy



Health
Hunter New England
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2023 waste reporting

Waste Streams	Waste Types	
General 2,436,673 kg	General Waste	2,436,673 kg
Recycling 584,788 kg	Batteries	156 kg
	Comingled	158,042 kg
	E-Waste	800 kg
	Hard Plastics	8,714 kg
	Paper & Cardboard	404,977 kg
	Soft Plastics	12,099 kg
Organics 25,864 kg	Food Organics	6,534 kg
	Garden Organics	19,330 kg



Waste reporting



Financial Year

2022-23

Site

All

Sector

All

Data as of October 2023

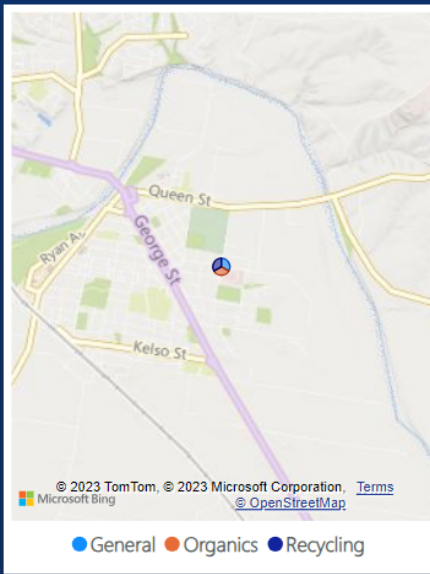
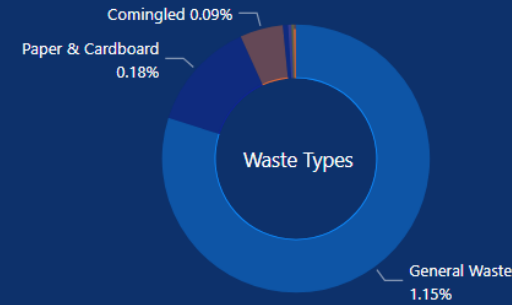
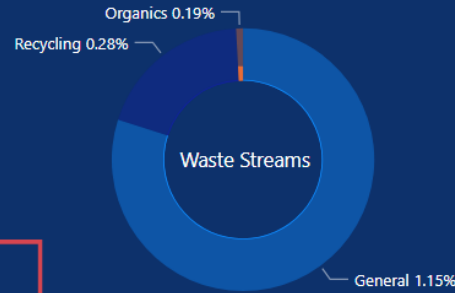
Singleton District Hospital

2022-23
Year

3
Waste Streams

4
Waste Types

49.19 t
Total Waste



Sites
Quirindi District Hospital
Raymond Terrace HealthOne
Scott Memorial Hospital
Singleton District Hospital
Tamworth Base Hospital
Tomaree Community Hospital (Nelson Bay)
Wallsend Campus
Wansey Dialysis Centre
Waratah Health Campus
Wee Waa District Hospital
Werris Creek Community Hospital
Westlakes Community Health Centre
Wilson Memorial Hospital (Murrurundi)
Windale Community Health Centre (Eastlakes)

Waste Streams	Weight
General	34,903.68 kg
Organics	5,850.00 kg
Recycling	8,432.91 kg

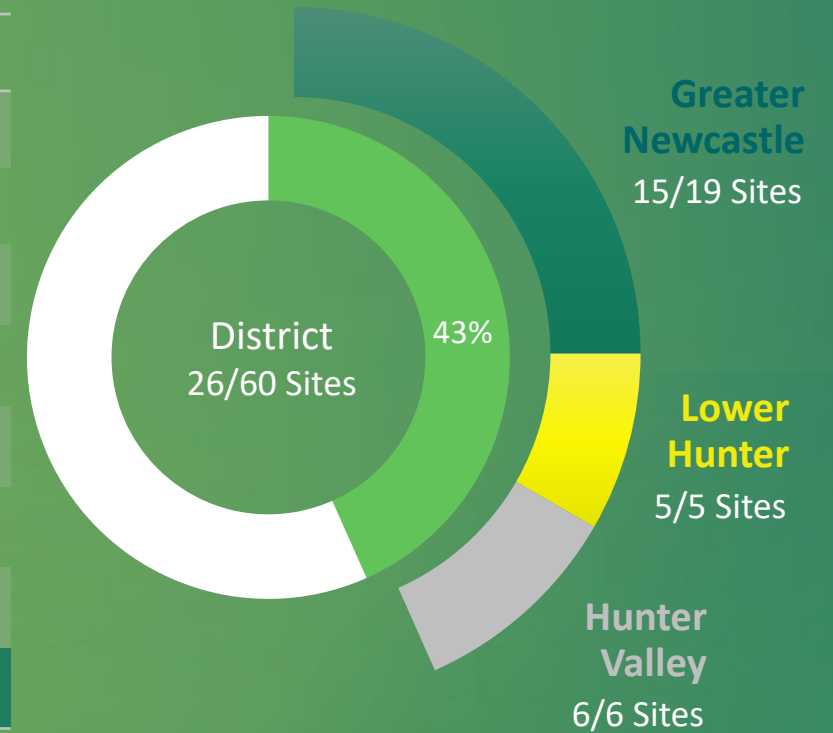
Waste Types	Weight	Provider
Comingled	2,838.00 kg	📍
Food Organics	5,850.00 kg	📍
General Waste	34,903.68 kg	📍
Paper & Cardboard	5,594.91 kg	📍



Waste streaming rollout

Commence Date July 2023

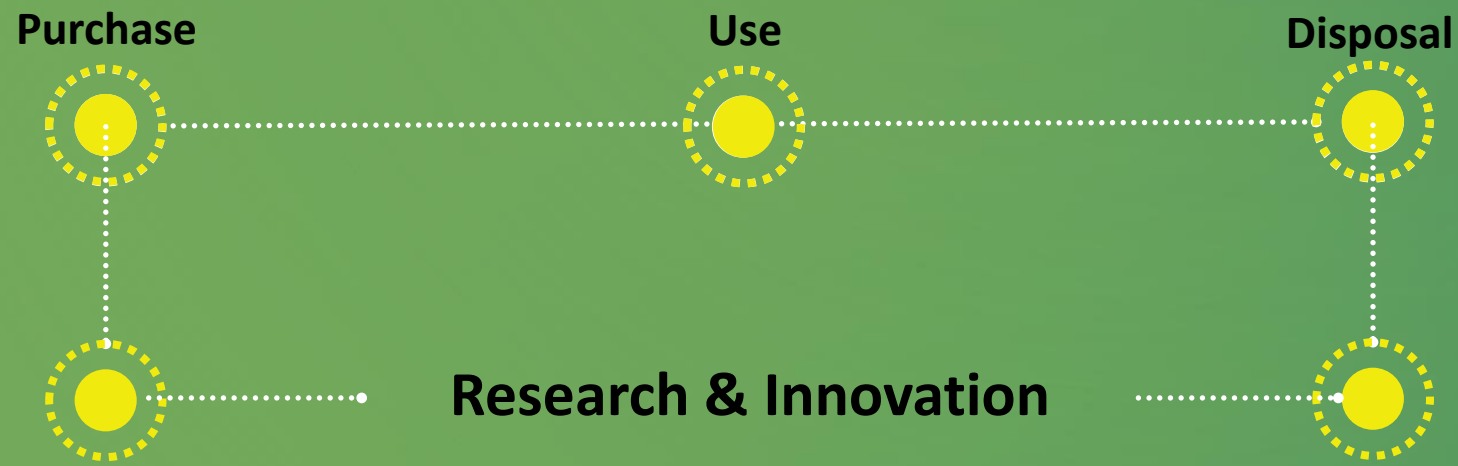
	Sites Implemented	%	Completed
Greater Newcastle	15/19	79%	2024
Lower Hunter	5/5	100%	✓
Hunter Valley	6/6	100%	✓
Lower Mid North Coast	0/6	0%	2024
Tablelands	0/8	0%	2024
Mehi	0/8	0%	2024
Peel	0/8	0%	2024
Total District	26/60	43%	2024



our waste



30 Million HNE Gloves to Landfill



Waste projects

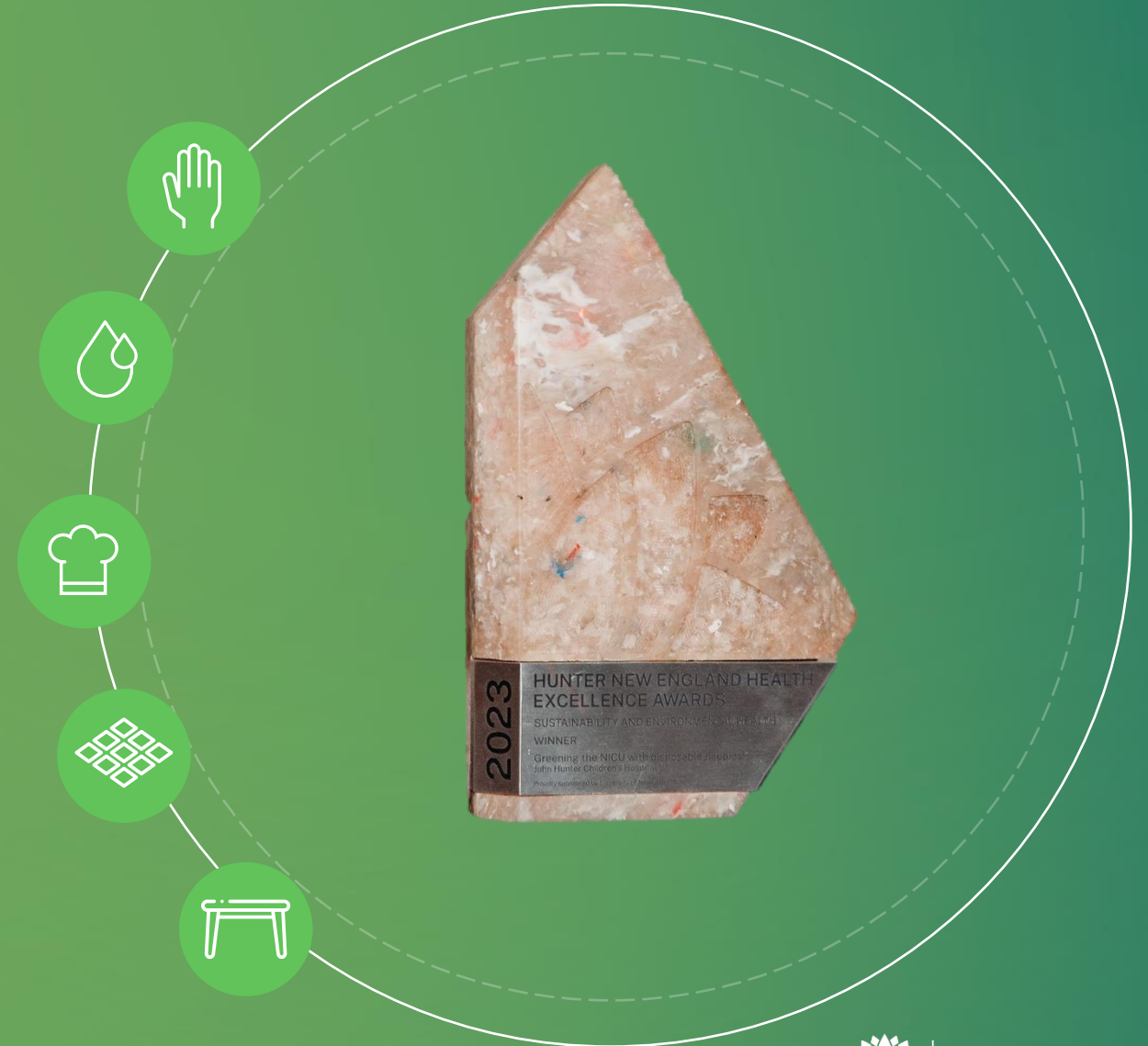
The 'Gloves Off' project is a research project taking place on to improve hand hygiene and reduce unnecessary non-sterile glove use. Currently we are disposing of 30 million non-sterile gloves annually equating more than 75 tonnes of waste. Early figures have shown that Unnecessary glove use has reduced from 60% to 31%.

E-water ~ All 38 kitchen sites now have access to e-water reducing chemicals and waste across sites. Trial in clinical areas

Project CHEF - New food model with flexible mealtimes, focusing on sustainable food practices. Trials have seen organic waste decrease by more than 50%. Rolling out at Tamworth, Armidale and JHH in 2024

Uniform recycling ~ Textiles to Tiles project. In 4 weeks more than 2000 staff uniforms have been up-recycled into 'green ceramics' a smart, innovative technology which remanufactures textiles into new furnishings including kitchen benches, bench tops and floor tiles

20 tonnes of plastic waste to furnishings - Partnering with local SME business 'Resourceful Living' to manufacture plastic waste into furnishings product for our new JHH facility



we are building a movement

 An EOI was issued to all HNE Health staff to become Sustainability Champions

 35 Sustainability Action Groups have been established

 Here are some of their Projects



Hunter Brain Injury Service – Embedding sustainable practices through organic waste recycling



JHH Theatres first Green Theatre & Ward



JHH NICU – Recycling 200,000 baby bottles



Reduction of surgical custom packs



Needle cap recycling



Plastic recycling
Repurposing of 100kg of theatre plastics weekly



Kimguard Recycling, diverting up to 20 tonnes p.a from landfill



“Gloves-Off: Campaign reducing the 30M rubber gloves going to landfill



Reselling of medical equipment
9m3 PA of e-waste generating \$100,000 of revenue



Reduction in high carbon anesthetics saving 10 tonnes of CO2 emissions p.a



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