

Attachment G

**Managing Waste and Resources at the City
Council Briefing - August 2022**

Managing waste and resources at the City

August 2022

Agenda

1. Waste legislation and policy context
2. City of Sydney waste strategy
3. City of Sydney operations
4. City of Sydney resource recovery programs
5. Regional waste & resource recovery programs (SSROC)



Waste legislation and policy context

Waste legislation and policy

1.1 Federal government

- Export of waste
- Product stewardship
- National packaging targets
- Right to repair



Waste legislation and policy

1.2 NSW Government

- Protection of the Environment Operations Act 1997 (POEO Act)
- Waste Avoidance and Resource Recovery Act 2001 (WARR Act)
- Plastic Reduction and Circular Economy Act 2021
- New legislation anticipated requiring separate collection of food or food and garden combined



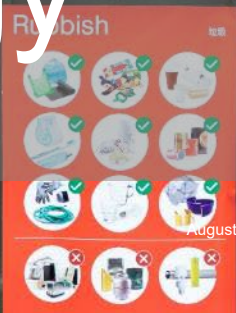
Waste legislation and policy

1.2 Local government

- Local Government Act 1993
 - Provide waste removal and disposal
 - Separate charge for domestic waste services
 - Local approvals policy
- Anticipated mandate for separate food collection
- Local government does not have jurisdiction over commercial waste
- No mandate for recycling



City of Sydney waste strategy



2.1 Six priority areas

Promote
innovation to
avoid waste

1

Improved
recycling
outcomes

2

Sustainable
design

3

Clean and
clear streets

4

Better data
management

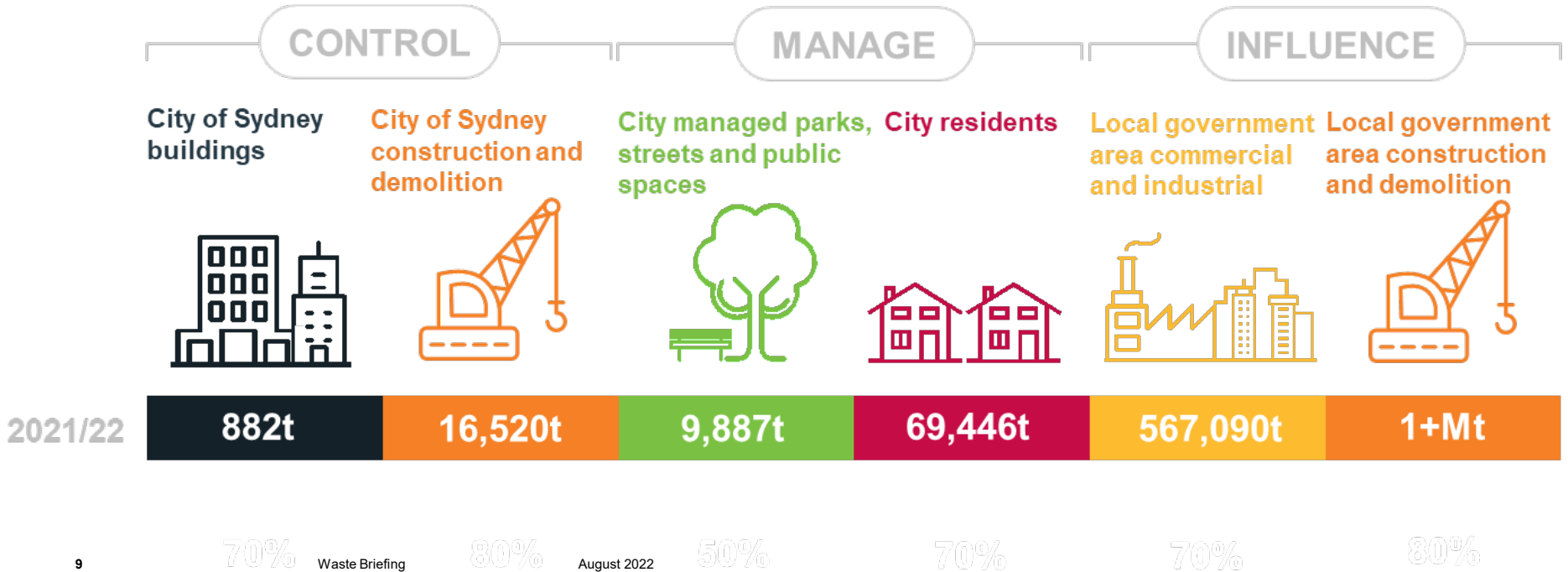
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Future
treatment
solutions

6

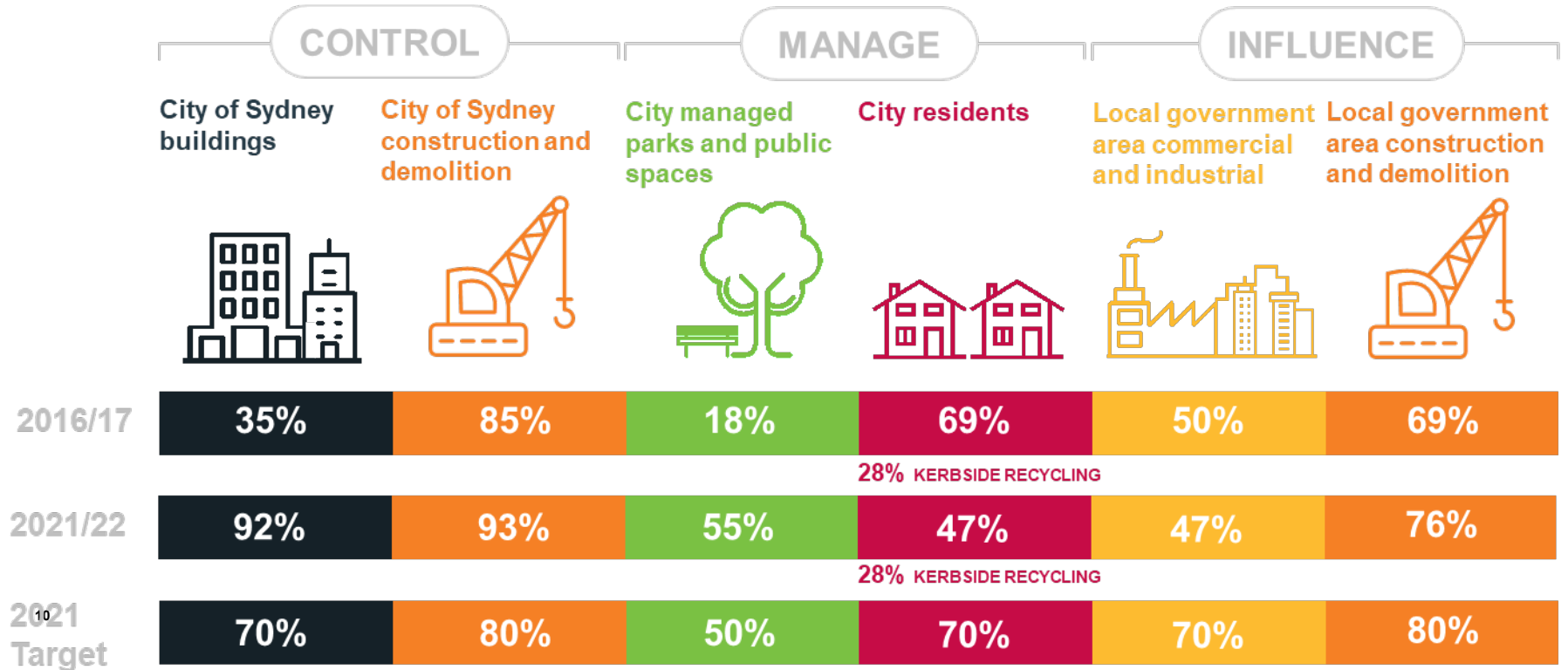
2.2 Targets and performance

Waste generation across our local area



2.2 Targets and performance

Landfill Diversion Targets



2.3 Strategy refresh 2022/23

Focus areas

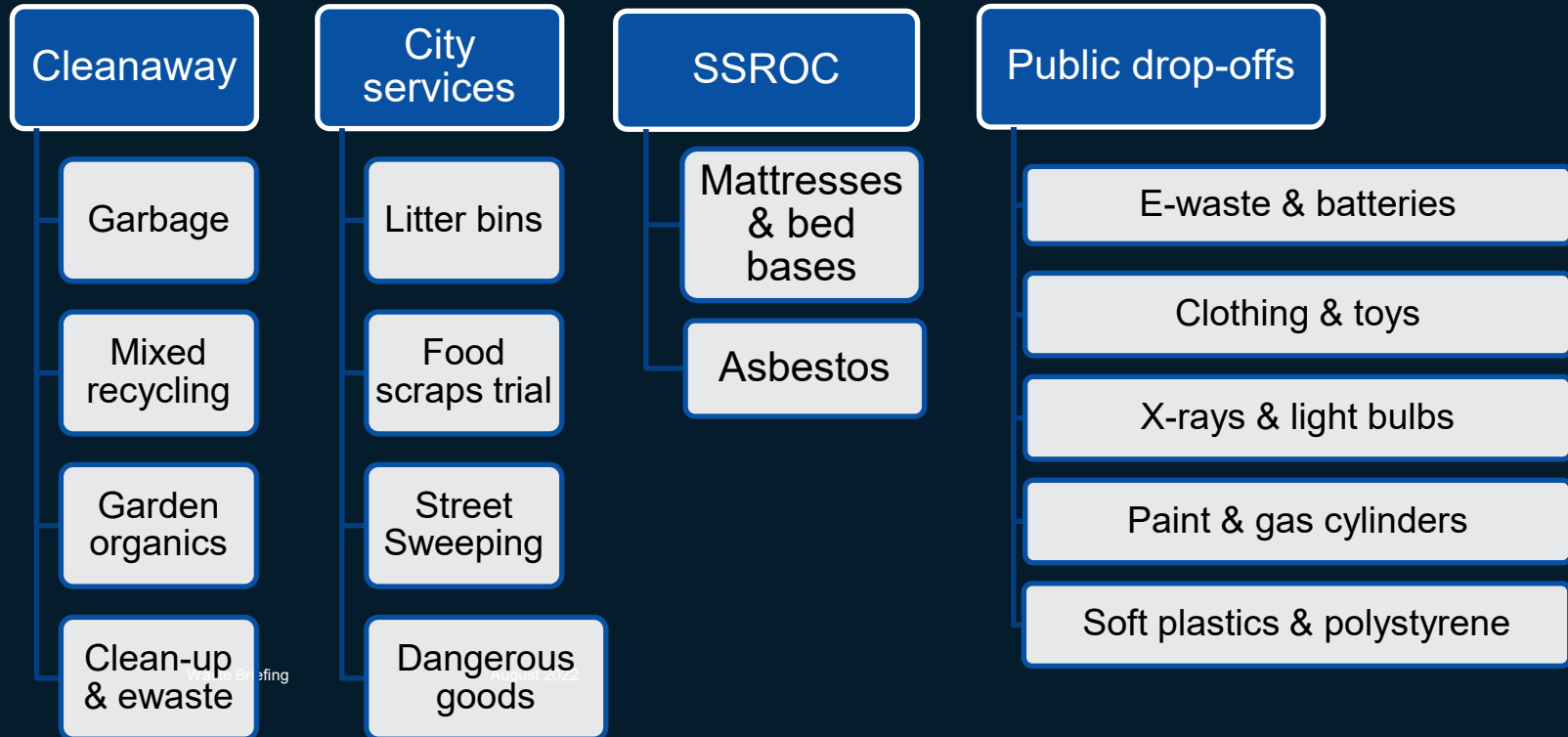
- Incorporate new government targets and legislation
- Include updated waste management and circular economy targets
- Respond to community awareness about impact of waste and circular economy principles
- Provide direction as to the priority actions that should be undertaken by the City and its stakeholders
- Provide an implementation framework



City of Sydney waste operations

3.1 Residential and public waste collections

Who collects our waste



3.2 Residential and public waste collections

What happens to our waste



1. Waste or recycling is collected



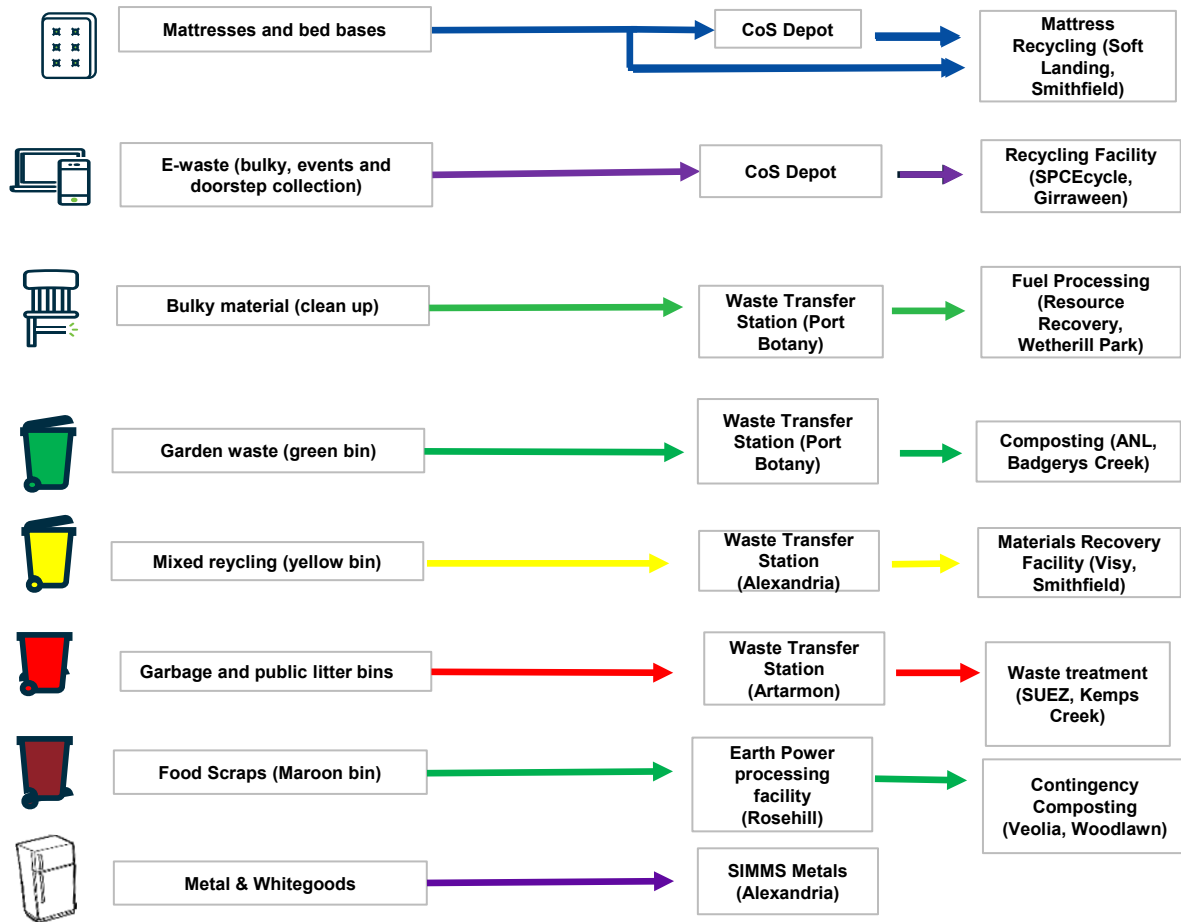
2. Materials are delivered to a waste transfer station for aggregation



3. Materials are delivered to processing facility

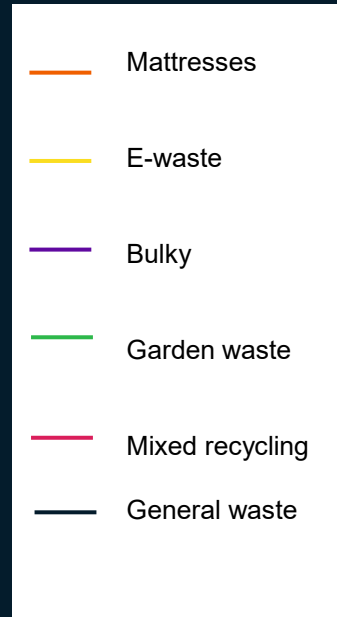
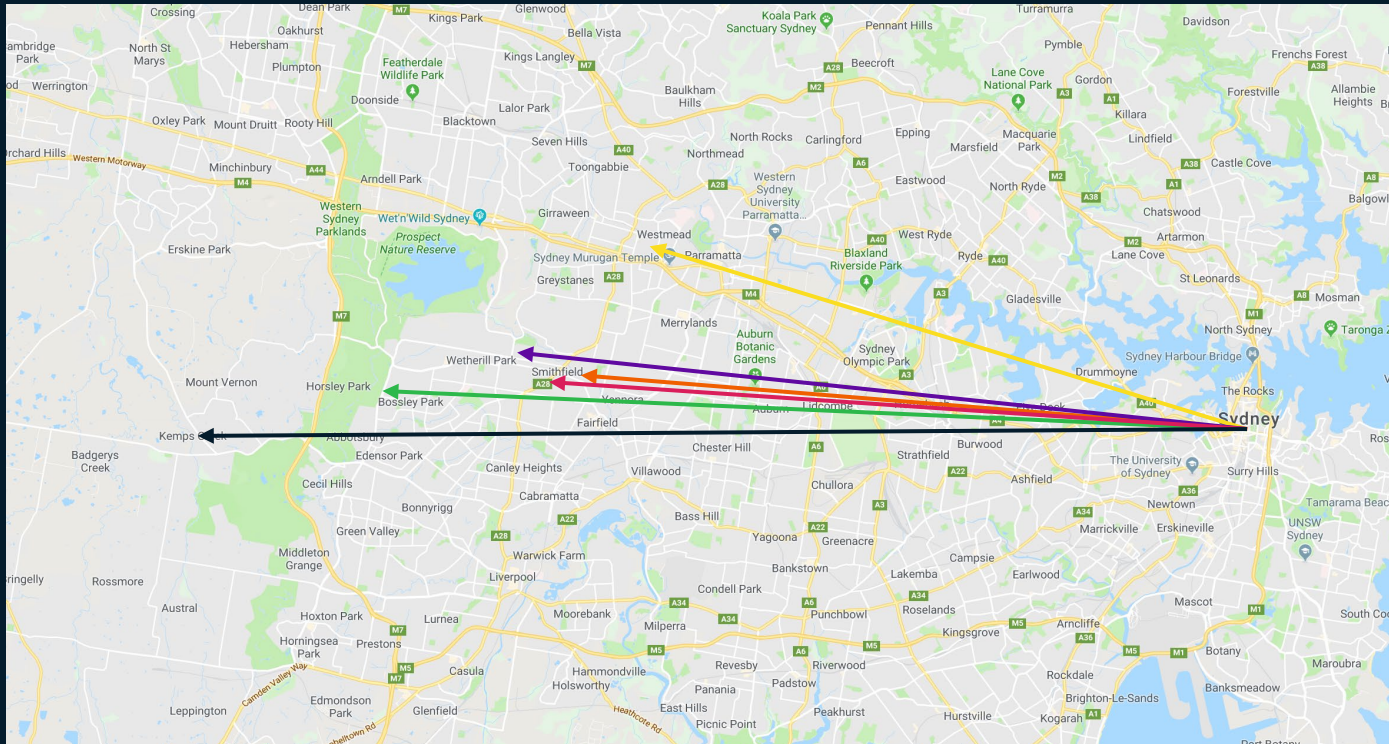
3.3 Residential and public waste collections

Where does our waste go?



3.3 Residential and public waste collections

Where does our waste go



3.4 Waste processing challenges

- Regulation changes governing treatment of waste
- Reduction of overseas markets accepting mixed recycling
- Lack of commitment at the state government level towards development of alternative to landfill
- Market monopolies in waste processing (Metropolitan Sydney)
- New infrastructure development constrained by planning and investment

City of Sydney resource recovery programs



4.2 Resource recovery team

Our objectives

1

Foster a community that avoids, reuses and reduces waste

Engagement & face to face education

2

Increase recovery by maximising recycling opportunities

Projects & programs

3

Motivate residents effectively use the City's services

Communications

4

Keep streets clean through smart waste design & solving chronic waste issues

Planning & Policy

4.3 Waste avoidance engagement



Clothing and toy swaps



Promoting safe reusables

4.4 Recycling education



Pop-up recycling stalls



Online recycling classes

4.5 Increasing recycling in apartments



Recycle Helper Service



Social Housing Recycling Trial

4.6 Online recycling help

City of Sydney
virtual assistant

Broken mobile phone
You - 15:11

Here's what we suggest for broken mobile phone

BROKEN MOBILE PHONE
Check if it can be repaired at the **Banga community**

BROKEN MOBILE PHONE
Use our recycling stations
Recycling stations for

community shed in Green Square offers services to help repair
at City of Sydney customer service

Virtual Assistant

Ask a waste expert
Get answers to all your tricky questions about reducing, reusing and recycling.

[Ask now](#)

Ask a waste expert

WASTE & RECYCLING SERVICES
[Book a free pick-up for bulky items](#)
About 1 week

[→](#)

Online bookings

WASTE & RECYCLING SERVICES
Order free bin stickers and signs

[→](#)

Free resources

4.7 Motivate residents to use our services



Bin stickers and posters



Recycling messaging on our trucks



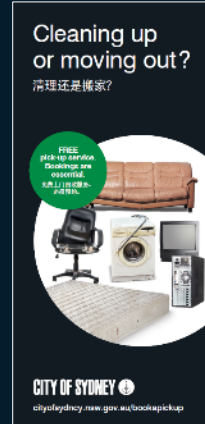
Brochures and guides



Recycling content articles



Recycle Helper Service poster



Book a pickup brochure



Drop off recycling event poster and ads



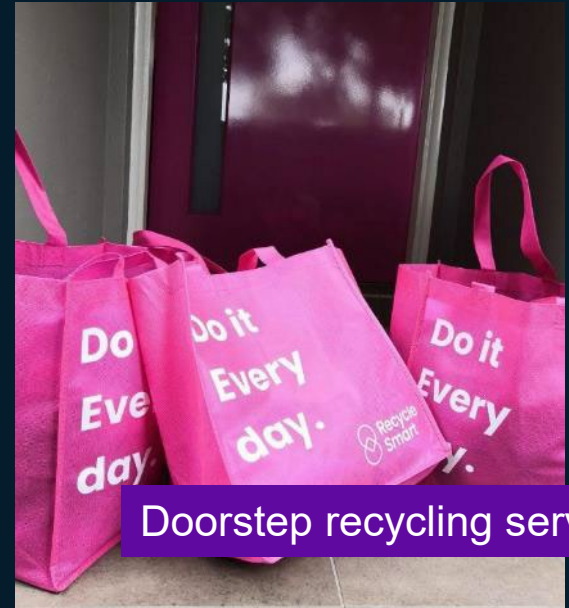
4.8 Maximising recycling opportunities for electronics, soft plastics, clothes and more



Recycle It Saturday



Recycling stations



Doorstep recycling service

4.8 Maximising recycling opportunities for food waste

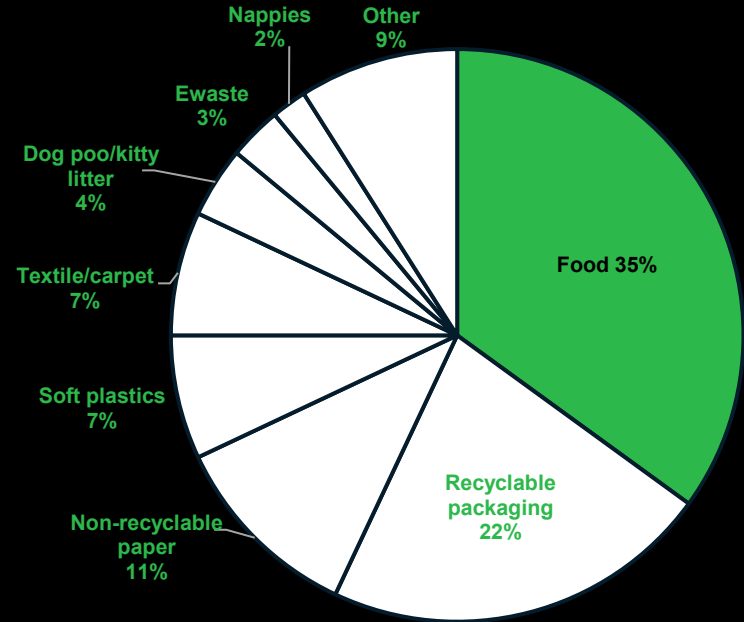


Food scraps recycling trial

4.9 Food scraps recycling trial

Why is it needed

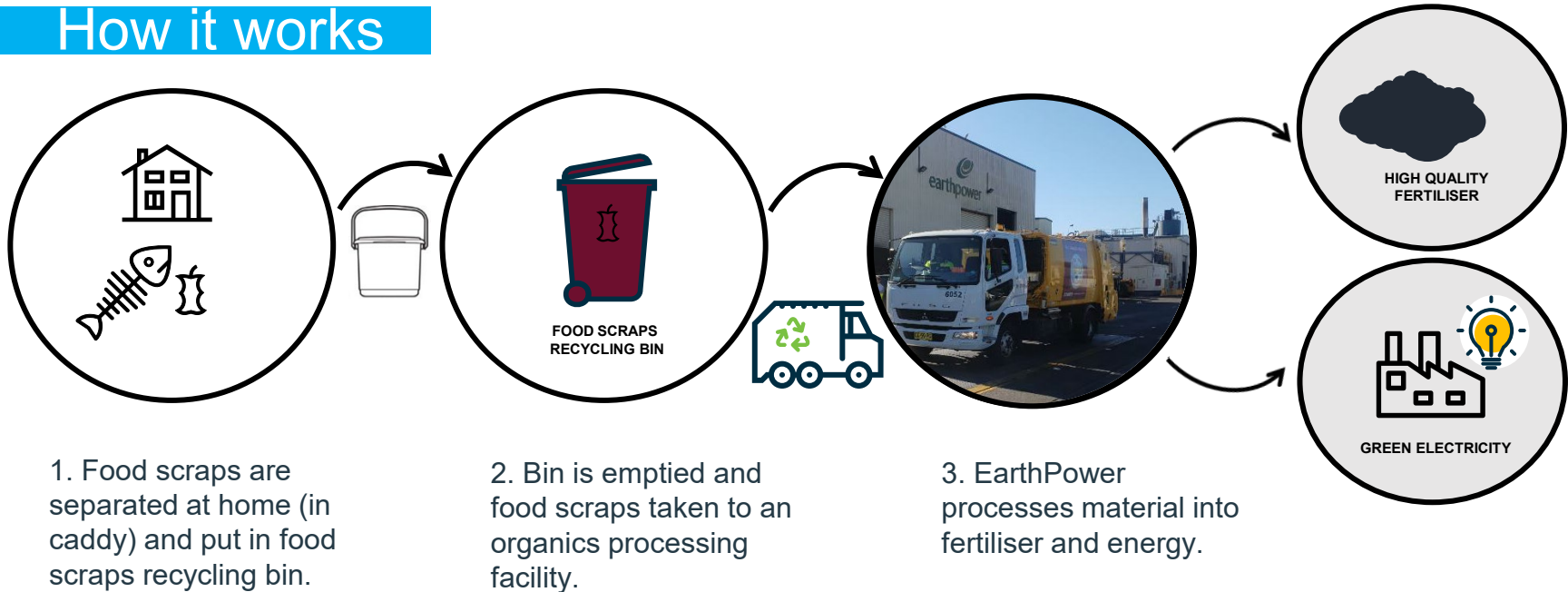
- Food comprises ~35% of red lid rubbish bins
- Action to help achieve our '90% diversion from landfill by 2030' target
- Food waste in landfill releases methane – a potent greenhouse gas
- Food waste can be turned into energy and compost
- EPA mandate for NSW councils to provide a FO or FOGO service by 2030



Composition of residential red lid bins

4.9 Food scraps recycling trial

How it works



4.9 Food scraps recycling trial

Results

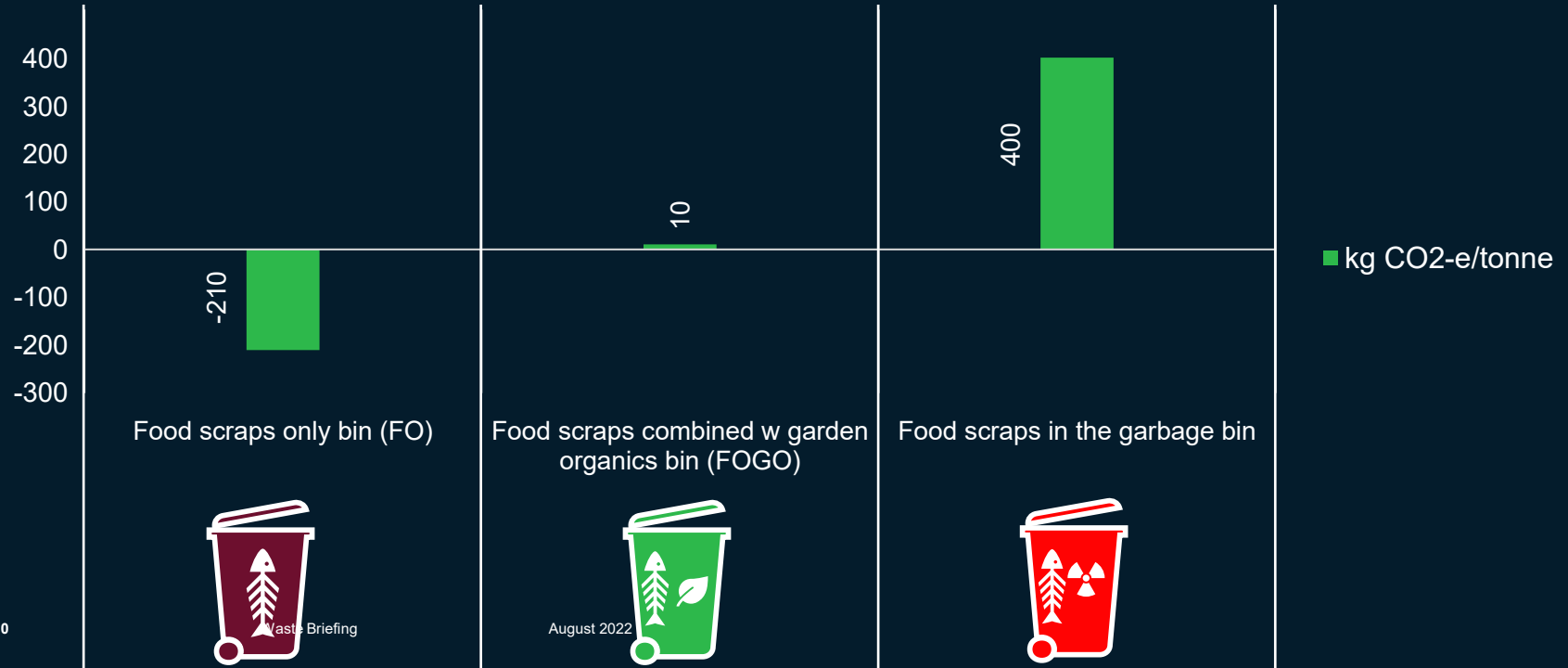
- 760 tonnes recycled
(1,085 to date)
- 15,454 households
- Recovery rate:
 - Houses: 88% - 93%
 - Apartments: 23% - 33%
- Bin contamination rate: < 4%

Environmental benefits:

- 738m³ of landfill space saved:
- Greenhouse gas savings: 1,284 tonnes CO₂^{-e}
- Energy produced: 64,447 kWh
- Soil amendment produced:
 - 7.9 tonnes fertiliser
 - 239 tonnes compost

4.9 Food scraps recycling trial

GHG emissions from 1 tonne of food scraps by bin type:

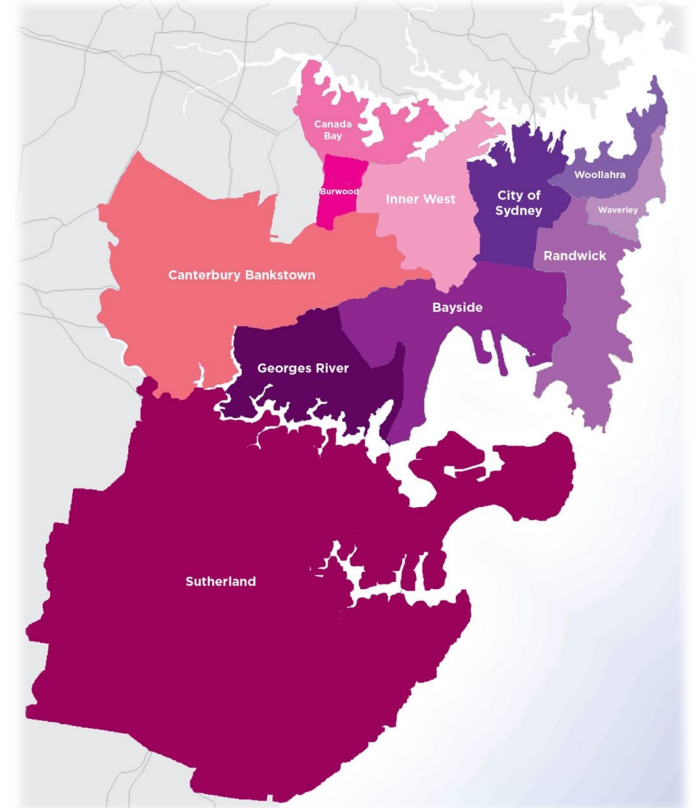




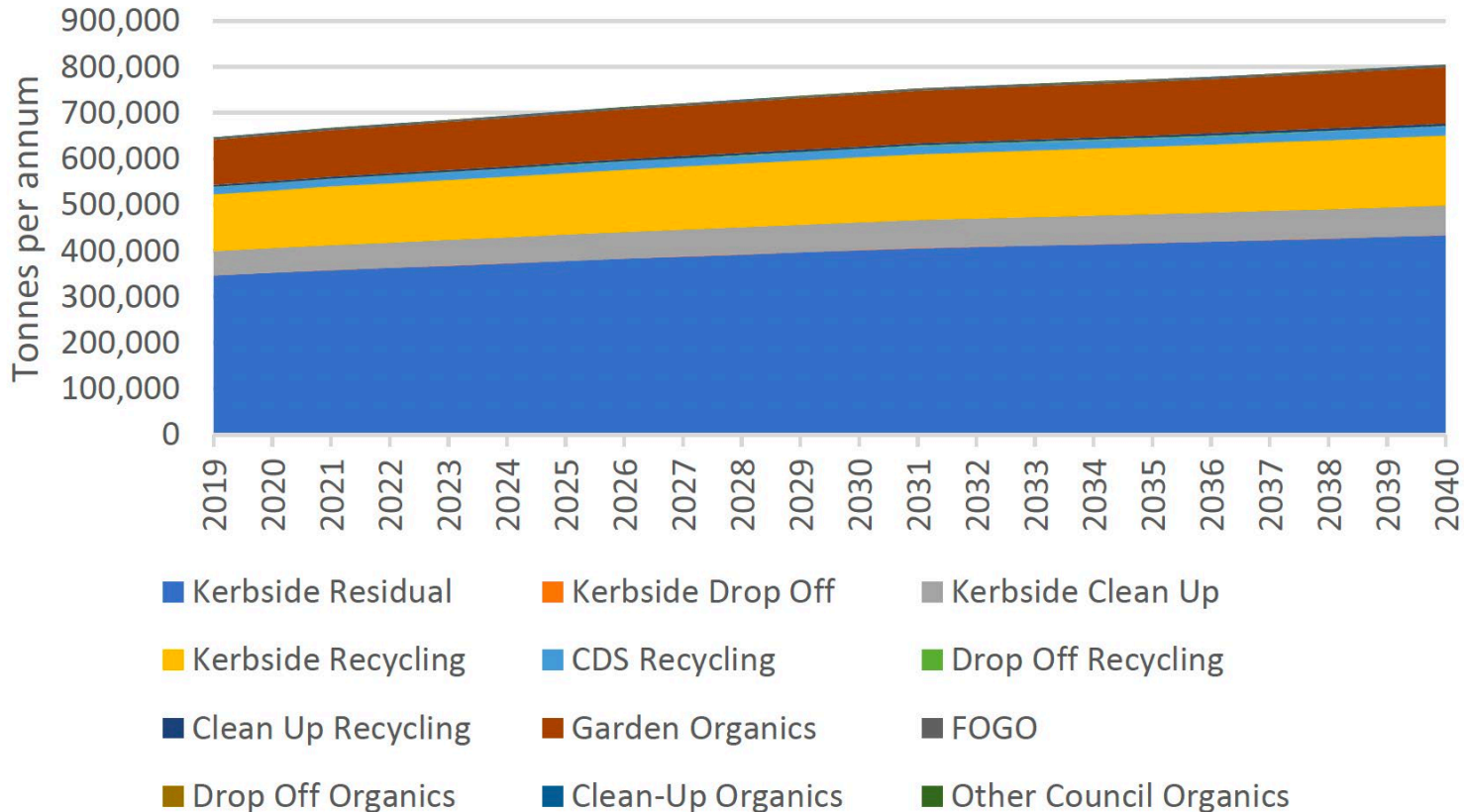
SSROC regional waste programs

Southern Sydney Regional Organisation of Councils (SSROC)

- Association of 12 councils with 1.8m people
- Collectively manage 20% of the waste in NSW
- Identify, develop and scale regional opportunities
- Advocate on behalf of member councils



SSROC waste breakdown (2018-19)



SSROC policy drivers

1. Change culture to refuse, reuse, recycle, and recover energy before disposal.
2. **Responsible for all our own waste and managing it through its lifecycle as closely as possible to where it was created.**
3. Consistent, transparent data identifies the problem, drives the solution.
4. Waste management is essential service requiring accessible facilities.
5. Procurement drives innovation, influences markets and creates new opportunities.
6. Collaborate on metro scale with state/federal governments.

Major focus areas since 2019

- Material flows and infrastructure planning
- Legislative and regulatory reforms
- Procure Recycled: Paving the Way (glass/rubber)
- Food/garden organics (FOGO)
- Circular Textiles for Sydney councils
- Advocacy
- Waste audits and training

Sydney Waste Data and Infrastructure Planning

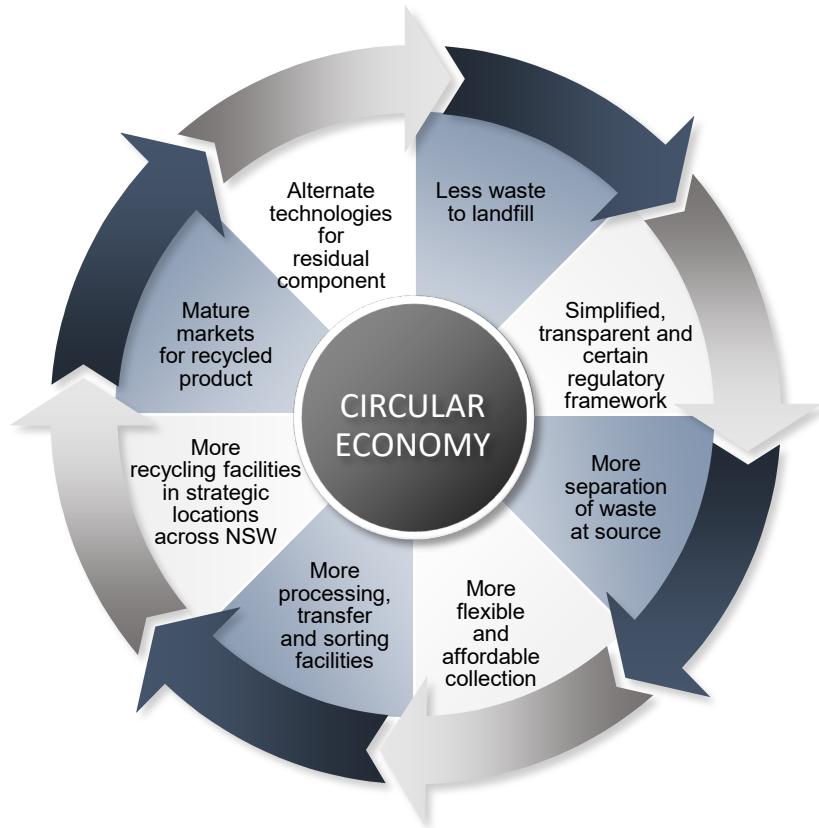
Aims

- Material flows and infrastructure needs in metro Sydney
- Waste data gaps and opportunities
- Recommendations for waste data management framework (Resilient Sydney)

Results

- Need for organics transfer stations
- Need for alternative mixed waste processing technology
- Opportunity to improve bulky waste data and recovery

Legislative and Regulatory Reforms for Achieving a Circular Economy



- **Waste levy hypothecation**
- **Definition of waste**
- Alternative funding & assistance
- **Resource recovery order & exemption regime**
- Strategic planning
- Planning controls
- **Waste minimisation & reuse**
- **Producer stewardship**
- **Uniform recycling label/regulate other claims**
- Residual waste

Procure Recycled: Paving the Way

- 16-council procurement of asphalt with recycled crushed glass
- Aggregated demand drives infrastructure/jobs
- Creates local market for 80mil glass bottles
- Decreases CO₂-e by 1,600tpa
- Saves councils up to 20% from previous contracts
- Align with state/federal policy objectives



Where the crumb rubber hits the road

- 12-council demonstration project of crumb rubber asphalt
- Extend local road life by up to 50%
- Climate-resilient local roads
- Aims to create local market for 64,000 EOL truck and 34,000 car tyres per year



FOGO/FO project

- Service options study
- Onsite processing technology review
- Transfer station options analysis
- Social research in MUDs to improve participation (strata, management)



Circular Textiles for Sydney Councils

52,500t of textiles discarded in metro Sydney red/yellow-lidded bins every year.

- Metro-wide textiles data and recovery options review with focus on council operations/services
- Market research on available suppliers for wearable/unwearable clothing
- Regional uniform procurement options



Regional advocacy

Advisory/working groups

- Local Government Advisory Group
- Standards Australia
- Metro ROC waste working group
- WARR Amendment Bill enquiry
- IPART DWM charge review
- Australian Waste/Recycling Expo
- WMRR working groups

Recent submissions

- IPART DWM charge review
- NSW Resource recovery framework
- Stewardship for consumer electrical/electronic products
- POEO regulation review

Other projects for 2022-23

- Soft plastics collection and local, circular remanufacturing
- White goods recovery/test/repair for social programs, flood-affected communities
- Waste management continuity disaster risk reduction and resilience plan
- Kerbside bin and bulky waste audits
- Residual waste management options briefings