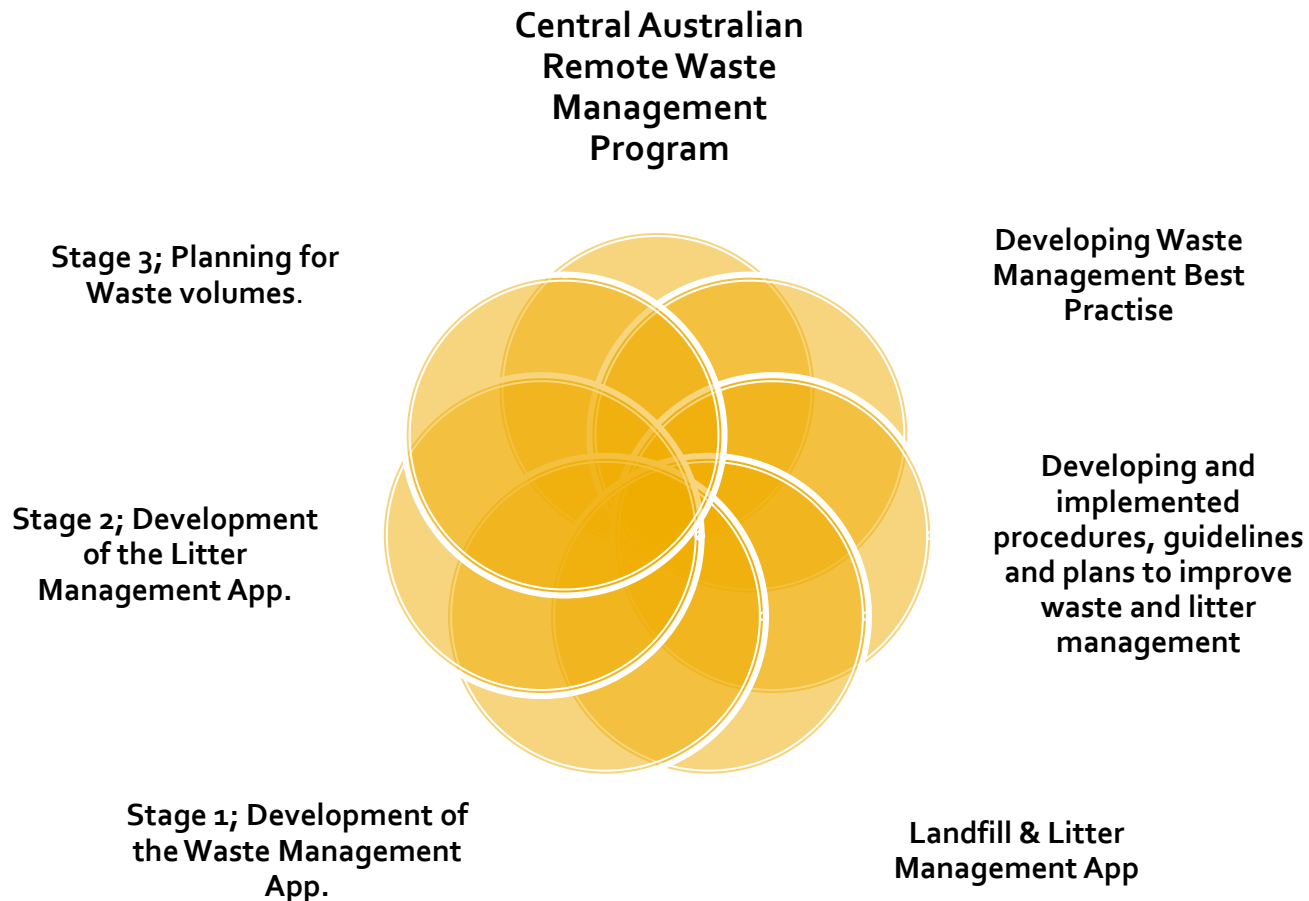


**11<sup>th</sup> NATIONAL ABORIGINAL AND  
TORRES STRAIT ISLANDER  
ENVIRONMENTAL HEALTH  
CONFERENCE 2017**

**Michael Davis and Edan Baxter**  
**Creating a Healthier Environment**  
**with the Landfill & Litter**  
**Management App**

# Overview



# Central Australia Remote Waste Management Working Groups



two ways :: one outcome



# Central Australian Remote Waste Management Program

The working group commenced in 2012

Members include; Barkly, Central Desert and MacDonnell Regional Councils, NT Department of Environmental Health, NTEPA, DHCD, NT Worksafe and LGANT.

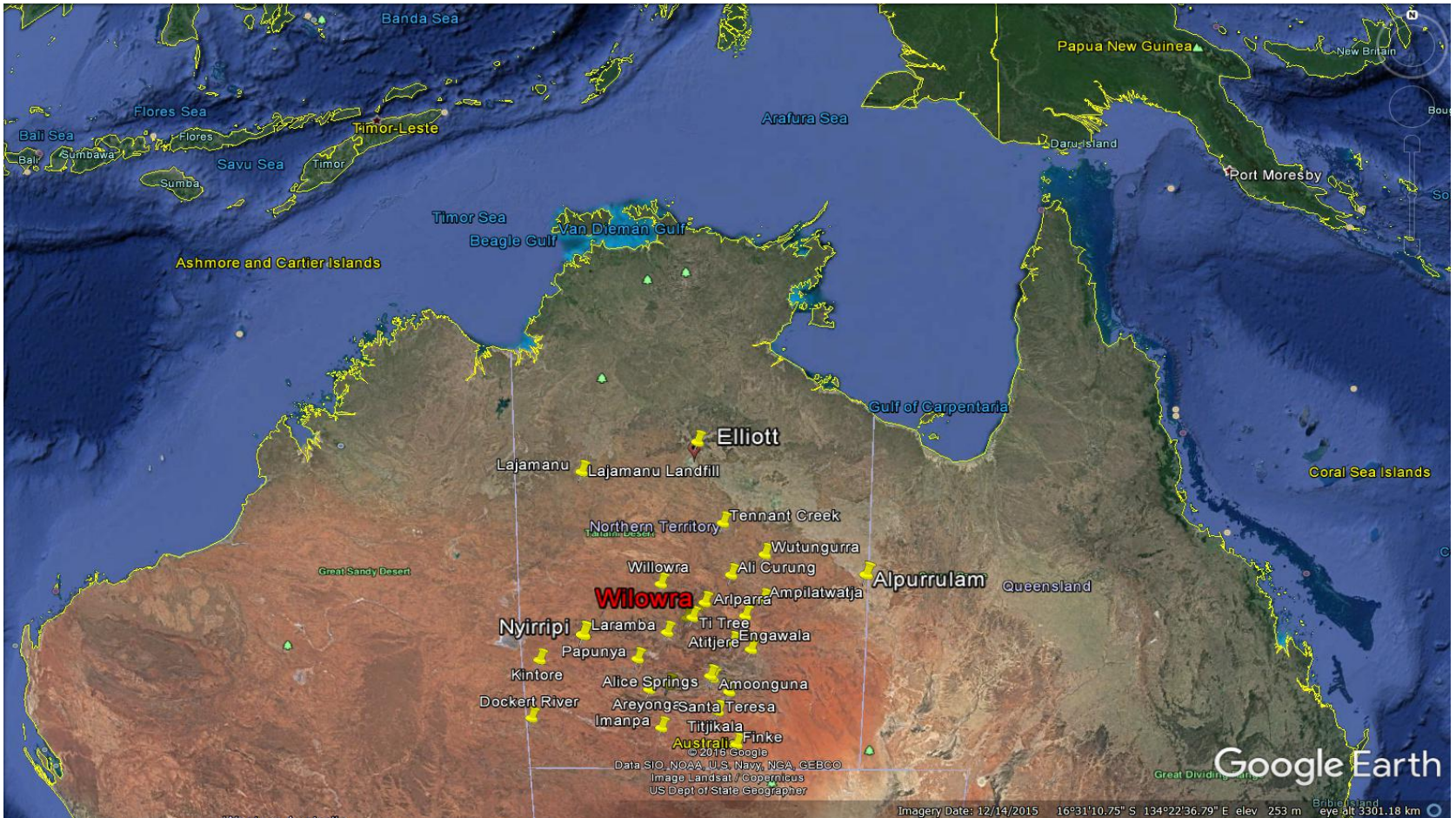
The aim of the group is to work together to discuss regional waste management and environmental health issues, along with developing sustainable and best practise waste management for remote communities in the Central Australian Region.

# Central Australia

Populations in Central Australian remote communities starts from about 100 to 200 members for small communities, with larger communities 600 and above.

Most communities have been in existence since the 1950's.

# Central Australia

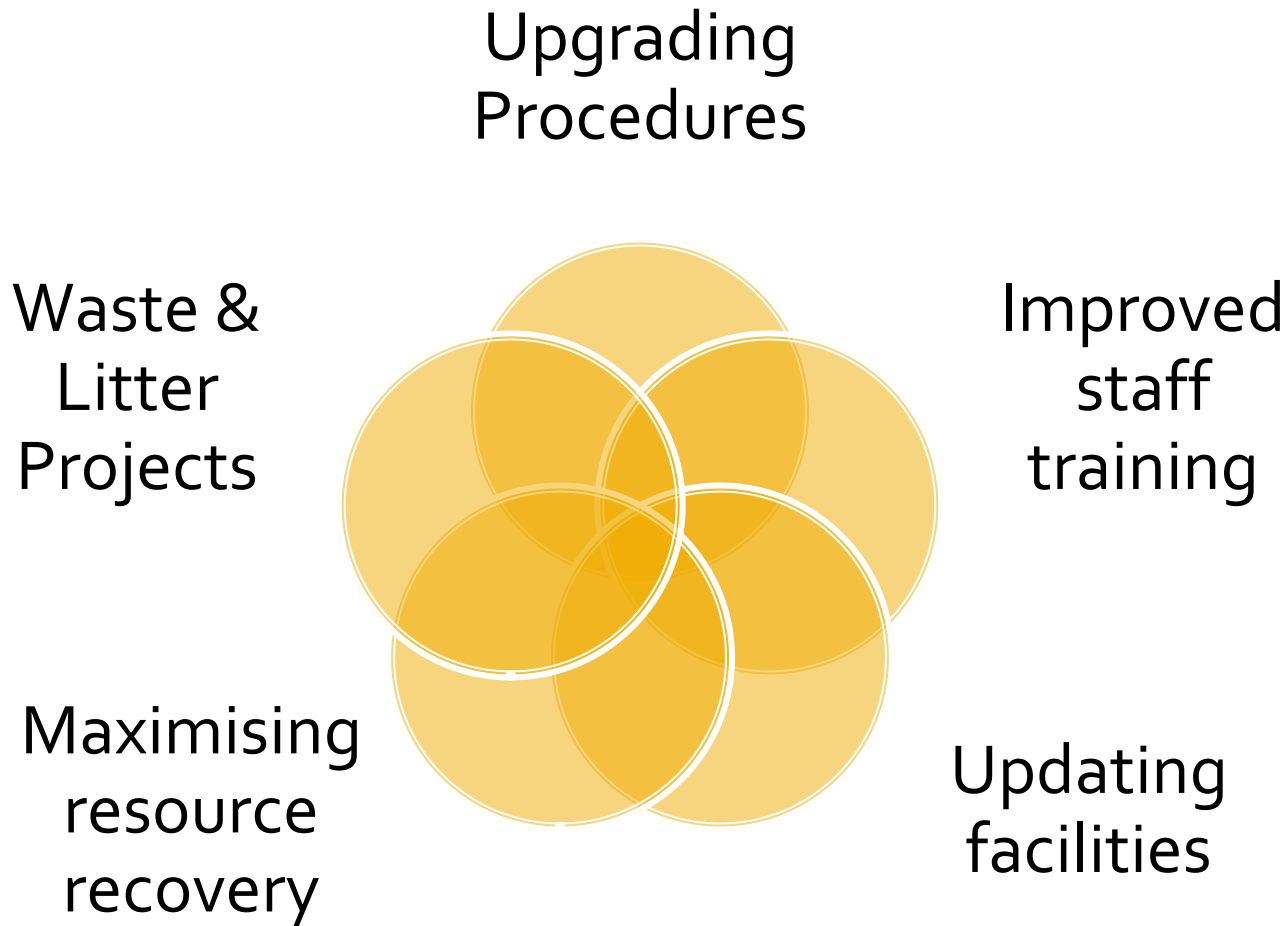


# Developing Waste Management Best Practice

- Environmental Sustainability is met when the following occurs;
  - Resource recovery is maximised and waste to landfill is minimised.
  - Occupants service requirements are met satisfactorily
  - Statutory obligations of any predicted waste stream is met.



# How are we achieving best practise

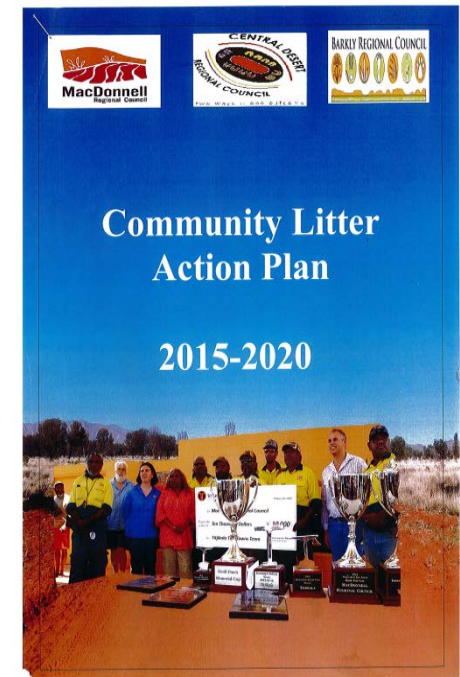
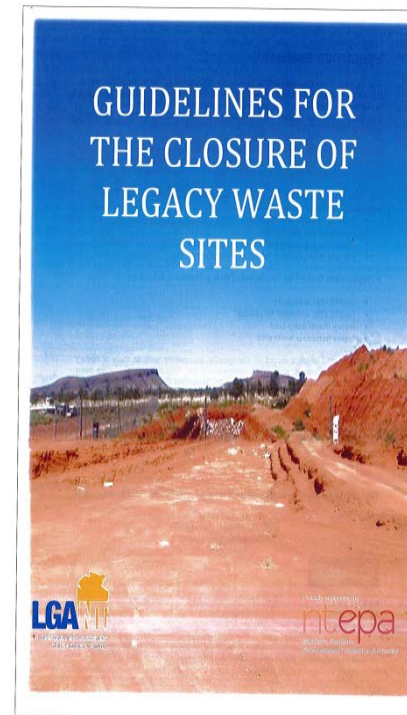
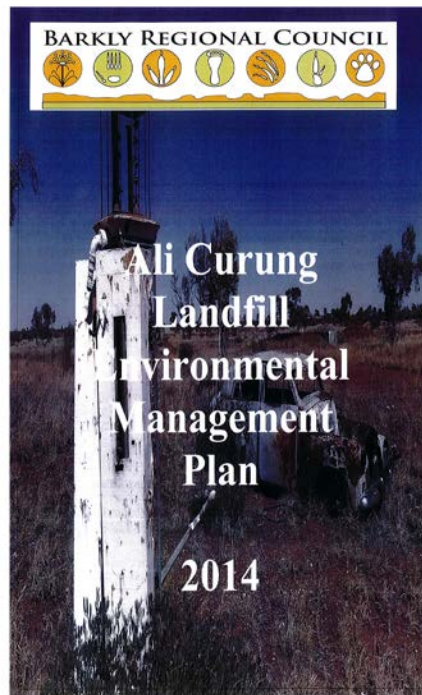


# Updating Procedures

The Program have developed and implemented procedures, guidelines and plans to improve waste and litter management, including;

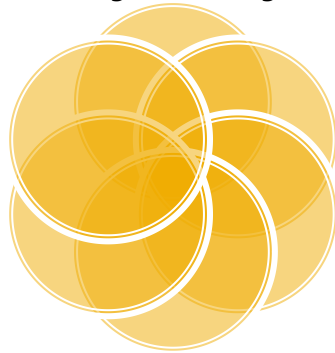
- Central Australian Landfill Operating Manuals
- Environmental Management Plans
- Guidelines for the Closure of Legacy Waste Sites
- Community Litter Action Plan
- Asbestos Management Plans

# Providing staff training



# Updating Facilities

The working group has been working towards improved waste facility designs including;



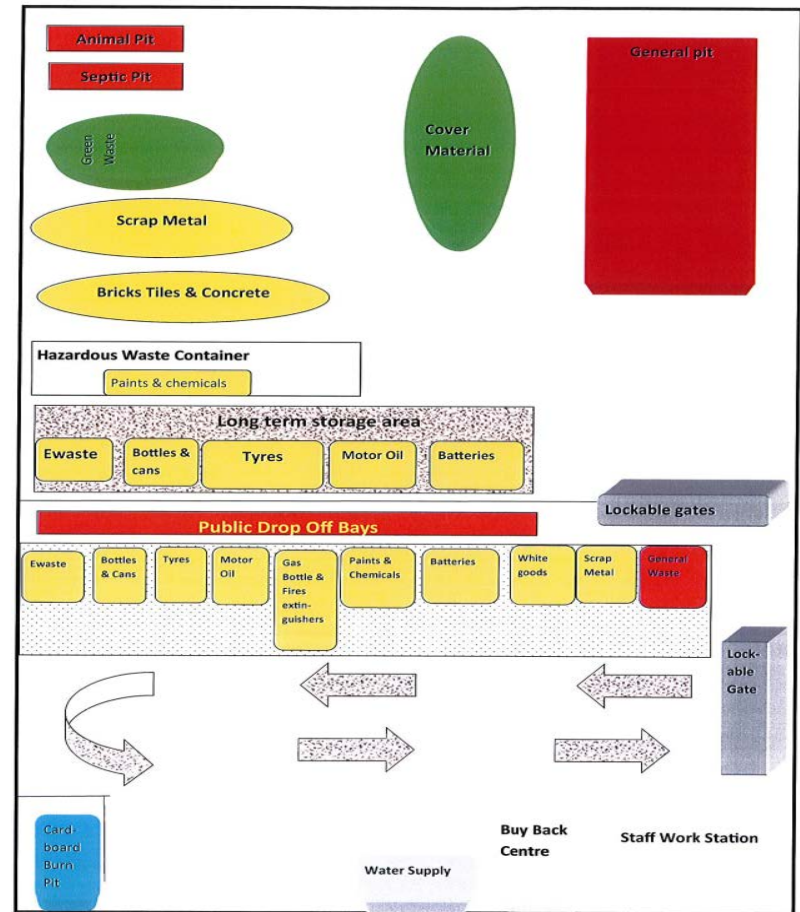
Restricting access to the compound and improving efficiencies

Maximising resource recovery by improved separation and clean stockpiles

Installing public drop off bays

Installing fencing around Landfills compounds

Improved signage



# Including Pit Design

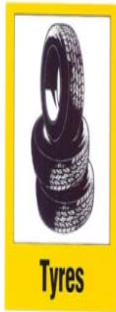
## Improved Pit Design

- Stepped sides
- Bund walls around perimeter
- Ramped entrance
- Clean fill stockpile



# Maximising Resource Recovery

## Drop Off Bay Pictorial signage



## Pit and Stockpile signage

**Animal Carcass Pit**

**Septic Pit**

**General Waste**

**Cardboard**

**E Waste**

**Bottles & Cans**

**Tyres**

**Motor Oil**

**Gas Bottles & Fire Extinguishers**

**Green Waste**

**Tip Shop**

**Hazardous Waste Container**

**Bricks, Tiles and Concrete**

**Paints & Chemicals**

**Batteries**

**White Goods**


**Scrap Metal & Non Ferrous Metals**

# WASTE AND LITTER REDUCTION PROJECTS



**Community Hot Spots**

**Community Litter Management  
(clean up day)  
programs**



**Schools education programs**

**Community education programs  
(community Litter Management Plans)**

# ACHIEVEMENTS (Waste Separation)





# ACHIEVEMENTS (Recyclable storage)



# ACHIEVEMENTS (Community Litter Reduction)



# Waste Management App

2015- The Centre For Appropriate Technology, Spinifex Valley, NT EPA and CARWMP developed a pictorial and spoken word Waste Monitoring Application. It was designed specifically to aid the Council to maintain its current landfills by helping audit key performance areas.

- The spoken and pictorial design enables Council to involve staff with low literacy in the waste auditing process.

# Waste Management App

The landfill is audited by Council staff

Reporting on sections of the landfill and its condition by scoring each section with a;

The reporting function of this app provided a screen shot report with no other detail available.

- Green (In Good condition).
- Orange (needs some improvement).
- Red (in poor condition).



# Development of the App



# Stage 2 including Litter Management

A more detailed Waste Management Audit including;

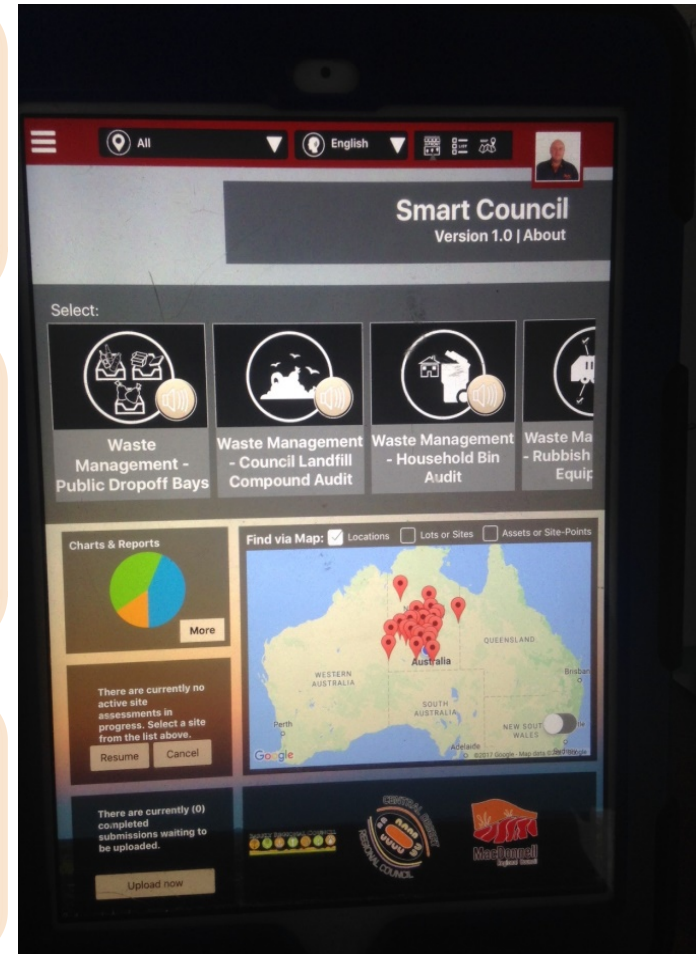
- An audit for 13 Separate Public Drop off Bays
- A separate Council Compound audit of; fencing, road condition, pits and all stockpile.

The new Litter Management function including;

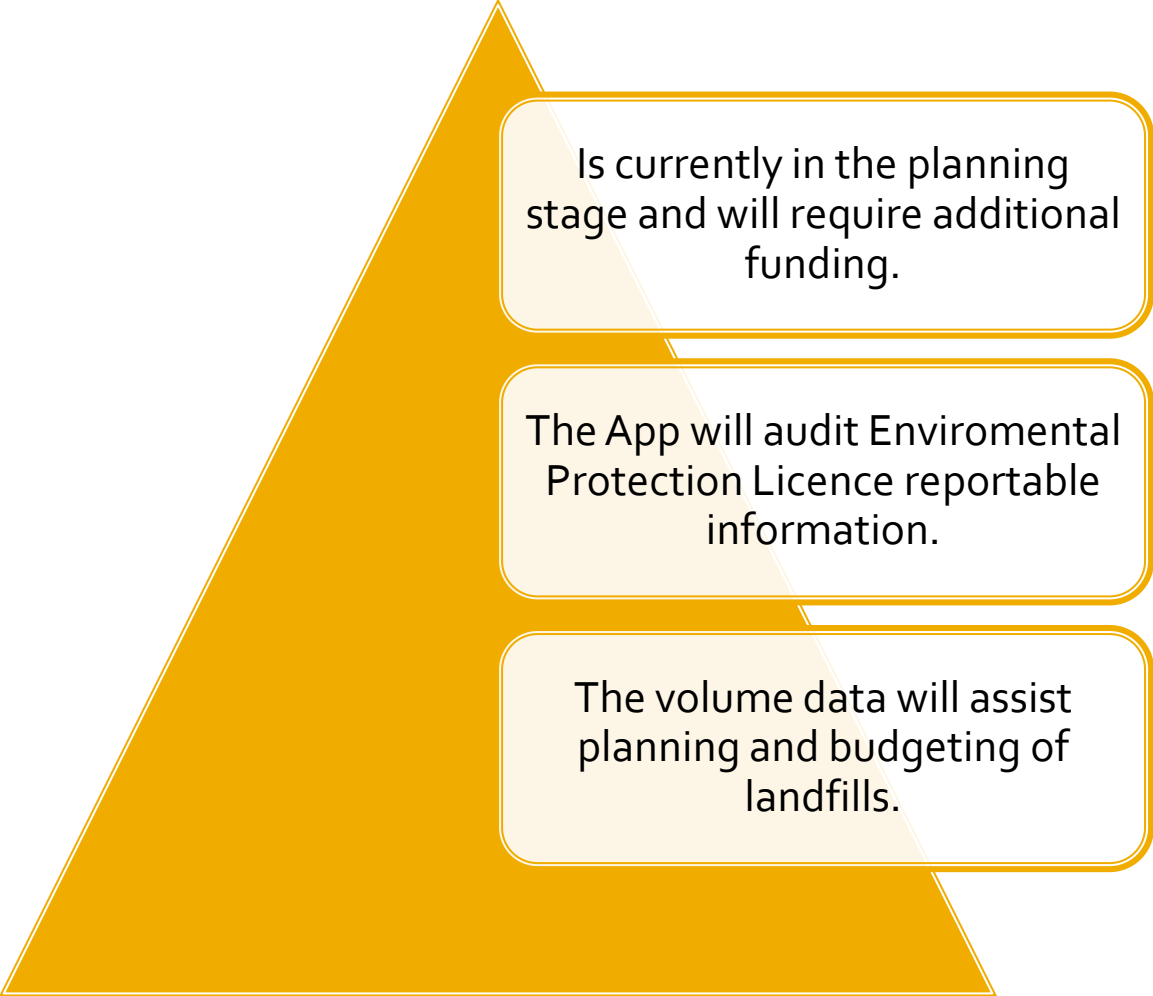
- Yearly community household bin condition audit;
- Waste Plant serviceability audit;
- Community Litter hot spot audits;
- Reportable tidy town locations audit in and around the community.

A detailed report including:

- Historical chart
- Percentage of Green, Orange and Red rating for each key area and community.



# Stage 3; Waste volumes

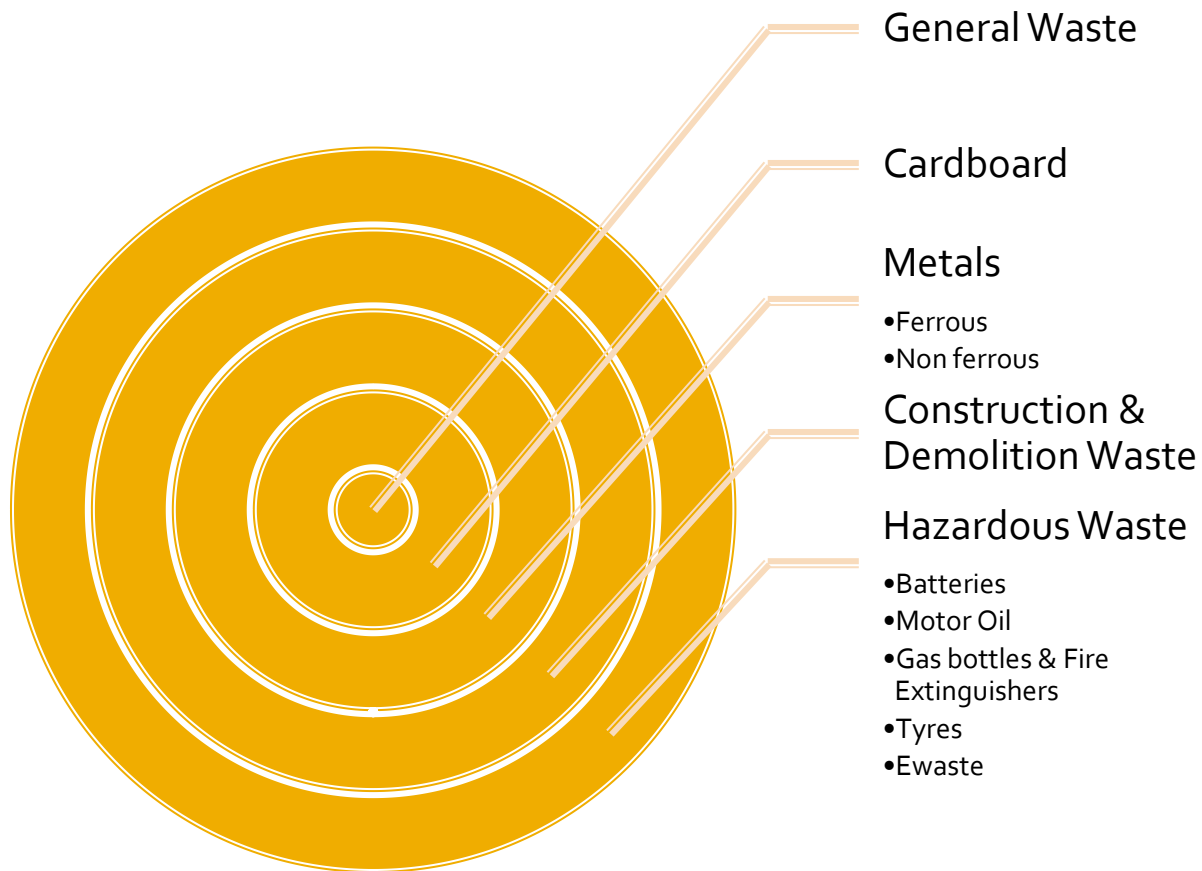


Is currently in the planning stage and will require additional funding.

The App will audit Environmental Protection Licence reportable information.

The volume data will assist planning and budgeting of landfills.

# VOLUMES





# Stage 4; Remediate legacy waste

**In the planning stage and will require additional funding.**

**Will include the following functions;**

- Key stakeholders
- Site history
- Planning & cost estimation for site remediation
- Implementation of Closure plan
- Post Closure Management

# Thank You

