

Sustainable Subdivisions Framework

Circular Economy (Materials and Waste) Case Study

Yarrabilba

The Sustainable Subdivisions Framework seeks to ensure that sustainability is embedded at the subdivision scale, recognising its role in the making of new communities.

The Circular Economy (Materials and Waste) category includes opportunities for reduced resource use and an improved retention of value through the materials life cycle.

Yarrabilba aims to be the first circular economy community in Australia, harnessing resources within the development.

Location¹

Yarrabilba, 45km SE of Brisbane, QLD

Site Area

2,058 ha

Number of Dwellings

17,000

Development Type

Residential + community infrastructure

Year / Status

2011 / Ongoing

Sustainability Accreditation

6-star Green Star - Communities

Key Stakeholders

- _ Lendlease (Development)
- _ Coreo (Sustainability)
- _ Ricardo (Sustainability)

CIRCULAR ECONOMY INITIATIVES²

Yarrabilba is working to integrate circular economy principles and create closed loop systems within the development. Examples of initiatives and opportunities to be explored include:

- _ Development of a Yarrabilba eco materials list including local supplier information
- _ Pilot the use of materials catalogue software to track the provenance of new home materials, and their composition, wastage and material value.
- _ Re-using site materials in road construction to reduce the amount of materials being excavated and transported
- _ Collection and processing of food and garden organics for use as high-quality compost in local market gardens and for agriculture
- _ Developing a large-scale commercial composting facility, Modular Multi-Use Resource Precinct and a Materials Processing and Trade Centre
- _ Establishing a community resource centre that will include a repair café, a sharing shed and an upcycling shed

FRAMEWORK ALIGNMENT

Key objectives of the Circular Economy (Materials and Waste) category which are met by the Yarrabilba development include:

- _ To provide for community infrastructure to support sustainable resource recovery
- _ To encourage the re-use of on-site buildings and materials from the site in the construction of subdivisions
- _ To use products with high recycled content and end of life recyclability in the construction of subdivisions
- _ To encourage the selection of materials with low embodied carbon in the construction of subdivisions
- _ To support the local economy by buying local materials

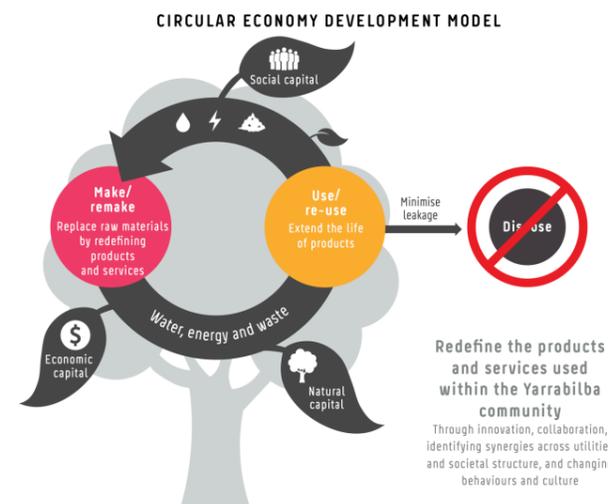


IMAGE: CIRCULAR ECONOMY DEVELOPMENT MODEL [SOURCE: YARRABILBA 'MORE THAN WASTE' STRATEGY]



IMAGE: ILLUSTRATION OF CIRCULAR ECONOMY OPPORTUNITIES FOR YARRABILBA [SOURCE: YARRABILBA 'MORE THAN WASTE' STRATEGY]

References

1. Lendlease (n.d) Yarrabilba at a Glance <<https://communities.lendlease.com/queensland/yarrabilba/living-in-yarrabilba/quick-facts/>>
2. Lendlease (2019) More than Waste - A Circular Economy Strategy Overview for the Yarrabilba Community, QLD