

Kimbriki Resource Recovery Centre

As from 1 July 2009 the Kimbriki Resource Recovery Centre has been operated by a private company, Kimbriki Environmental Enterprises Pty Ltd, with Northern Beaches Council and Mosman Council as sole shareholders.

You are welcome to visit the site by car and to take photos although prior arrangement is necessary. Kimbriki management would prefer teachers to ask students to visit as a group, rather than multiple individual visits.

Please contact Kimbriki during office hours (02) 9486 3512 to book a suitable time to visit the site and be aware we cannot offer personal interviews to answer student's questions.

Recycling has made a difference to the life of Kimbriki

The site opened and started receiving waste for landfilling in 1974. Recycling operations began in 1990 and since then over 2.25 million tonnes of resources have been recycled through the site. The landfill capacity is now expected to last at least until the late-2040's. After the landfill is closed there are plans to continue all the existing recycling operations and potentially for some of the site to be playing fields. The Kimbriki site is expected to remain as an important site for recycling and waste management for the foreseeable future.

Kimbriki Eco House and Garden

The Eco House and Garden is Kimbriki's education centre which specialises in the education and practice of the science of ecological living. This focuses on creating a low waste, everyday lifestyle through household recycling, composting, worm farming, mulching, organic gardening & permaculture ethics.

Workshops for adults, families and school groups are held regularly.

Kimbriki and the 4R's

This is the overarching philosophy at Kimbriki and at the core of everything we do.

Rethink: There is **NO** such thing as Waste – It **IS** a decision we can rethink.

Reduce: Reduce the amount of waste we make in every aspect of our lives.

Reuse: Use it again. Make things last longer. Second hand is good.

Recycle: Make new things from the resources we can't reuse.

How we practice the 4 R's at Kimbriki – Results for Financial Year 2024/25

270,330

Tonnes received

82.2%

Diversion from landfill

222,211

Tonnes recycled



Vegetation
85,225 tonnes



Brick and Concrete
92,900 tonnes



Household Recyclables
26,874 tonnes



Mixed Waste
56,669 tonnes

24,057t CO₂-e

**Methane
Combusted**

109,482kl

**Leachate treated
Nearly 1 Olympic
Pool/week**

378,988

Transactions

Services provided by Contractors

Kimbriki relies on the support of its contractors to provide recycling services, the four based on site are listed below:

			
Australian Native Landscapes <ul style="list-style-type: none"> operates the vegetation and wood waste recycling area. Receives vegetation and wood waste from Council collections, self-haul residents and commercial customers. 	CR Plus <ul style="list-style-type: none"> operates the construction and demolition recycling area. receives waste concrete, asphalt, brick and roof tiles from local contractors and residents. 	IQ Renew <ul style="list-style-type: none"> operates the household recyclables area for council yellow and blue household bins, as well as public drop off. recyclables are transferred off-site to sorting facilities. 	Morris Civil <ul style="list-style-type: none"> provision of plant and operators to support landfill operations. operates the transfer station recovery and haulage.

Problem Wastes

Kimbriki encourages the safe disposal of problem wastes by providing drop offs and solutions for the following problem wastes that if not properly managed represent a hazard to the environment. Most are recycled in some form and most are free to dispose of at Kimbriki.

E Waste – Kimbriki collects computers, televisions and computer peripherals and transports them to [Tech Collect](#) who then dismantles and recycles them funded by the National Television and Computer Recycling Scheme. Components are then either recycled here in Australia or sent overseas for further refinement.

Paint - Kimbriki has established a collection point under the Paintback® scheme. It is open to householders as well as trade painters, with a limit of 100 litres per visit in containers no larger than 20 litres. [Paintback®](#) is an independent not-for-profit organisation which is funded by the Australian paint industry and the major companies that supply around 95% of all the architectural and decorative paint sold in Australia. The founding members of Paintback® are Dulux, Haymes, PPG, Resene and Valspar. We receive approximately 240 tonnes of paint a year for recycling.

Asbestos - Kimbriki accepts BONDED ASBESTOS material only, things like old fibro sheeting and mouldings. These must be double-wrapped and deposited in our separate asbestos drop zone. We then prepare a special burial point in the landfill where the asbestos waste is entombed under a minimum of 1m thick cover material immediately as its emplaced.

Mattresses - these are partially recycled on site. Mattresses are loaded into a shredder then a magnetic mechanism separates the springs and other steel components from the rest of the shredded mattress ready for recycling. The shredded fabric covers, fibre fill and any latex, or foam fill is removed separately and currently goes to landfill. We receive approximately 25,000 mattresses a year.

Motor oil - Kimbriki accepts volumes up to 50L per trip. The oil is collected by Nationwide Oil and is recovered by a unique chemical process that removes water and heavy metals allowing the oil to be re-used.

Lead Acid Batteries - these are collected and delivered to [EcoCycle](#) who are specialist battery recyclers. EcoCycle's downstream partner is able to recover up to 97% of the material from each battery. The main components of lead-acid batteries are lead, polypropylene (the plastic casing) and sulphuric acid. The lead and polypropylene are reused in the production of new batteries. The sulphuric acid is easily neutralised to sodium sulphate, which is used in fertiliser and detergent manufacture.

Disposable and rechargeable batteries - these are collected and delivered to [EcoCycle](#) who are specialist battery recyclers. They use an automated plant to separate the batteries into their different chemical types then break them down to recover the raw materials for remanufacture.

Embedded batteries - An embedded battery is a small battery that is placed permanently within an item. They are often buried deep within the device and have no easy way of being removed. Kimbriki accepts domestic quantities of small items, including vapes and smoke alarms, which are collected and delivered to [EcoCycle](#) who are specialist battery recyclers.

Florescent tubes and globes - these are collected and delivered unbroken to [EcoCycle](#) who have a fully contained mercury recovery facility at St Marys in Sydney where the tubes are broken down and the aluminium, glass and mercury all separately recovered for reuse.

Gas Bottles and Fire Extinguishers – these are recycled by East Coast Re-valvers. Gas Bottles are emptied, collecting any left-over gas, then valves removed, refurbish the bottles and install new valves selling what can be repaired, with the rest sent to metal recycling. A similar process occurs with the fire extinguishers except the contents which are mostly dry powder aren't re-used but the valves and containers are still dismantled and units refurbished where possible.

Clothing and shoes - Kimbriki collects unwanted clothing for [Youth Safe](#), a charity that exports old clothes for reuse as well as making rags.

The Hub @ Kimbriki

The HUB @ Kimbriki accommodates and provides resources to three resident not-for-profit organisations and their dedicated volunteers. Each group shares Kimbriki's passion for reducing waste to landfill through recycling, repairs, donations and innovative workshops inspiring creative reuse of waste materials. The groups are:

[Bikes4Life](#) - Unwanted bikes are donated to Bikes4Life at their drop off area at the Hub. Bikes4Life are a not-for-profit organisation on a mission to replace the cycle of poverty with a cycle of hope. They achieve this by recycling and restoring discarded bikes to alleviate poverty and social injustice in Australia and overseas. By providing bikes to families in marginalised impoverished communities, Bikes4Life improves their standard of living, enhances employment opportunities, and ensures children can attend schools more regularly.

[Peninsula Toy Repair Group](#) - Toys, games and puzzles can be donated to The Peninsula Senior Citizens Toy Repairers. This is a strong organisation within the community, providing an engaging activity for senior citizens, bring joy to underprivileged children, and contribute to toy recycling efforts, reducing landfill waste. Countless hours each week are donated by volunteers to ensure that disadvantaged children in impoverished communities around the world have access to toys, books, games, puzzles, and more. They graciously accept toys in any condition, restoring them to near-new status whenever possible. Regular sewing bees and repair workshops are held at the Hub

[Boomerang Bags - Kimbriki Community](#) - An initiative that began in 2013 supports the diversion of post-consumer material (waste) into reusable bags to replace plastic bags and most importantly, start conversations about the 4 R's. Hundreds of thousands of plastic bags have been saved from landfill, and behaviour change has gone way beyond the bag to other single-use plastics and sustainable living, as well as the immeasurable social impact of the conversations, connections and new friendships created in the process!

Environmental Compliance at Kimbriki Resource Recovery Centre

Kimbriki is licensed and monitored by the NSW Environmental Protection Authority (EPA), please look at the following [link](#) to find our two Environmental Protection Licences issued by the NSW EPA, monthly summaries of EPA monitoring data including explanatory notes, as well as a map of the monitoring points and testing frequency. These licences contain a series of conditions that regulate the environmental footprint of the site. Kimbriki is required to conduct detailed monthly monitoring of dust, surface, and ground water to demonstrate compliance.

Vegetation regeneration and sediment control

Disturbed areas of the site are targeted with vegetation regeneration programmes and steep banks on the site are covered with coarse mulch and hand planted. KEE continues to seal more of the roads to reduce dust and control sediment on the site. A series of drains and structures have been installed to capture sediment as water travels through the site and these all drain into a series of large settling ponds at the bottom of the site to allow for further treatment and testing to ensure compliance prior to the water being released off site.

Reducing greenhouse gases and odour

A gas flare completes a landfill gas collection system that was installed in late 2013. The system vacuums landfill gas from a network of pipes that has been installed in the landfilled waste. The collected gas is then burned at a high temperature of approximately 850 degrees C. Annually the system typically collects around 3.0 million cubic metres of landfill gas and reduces Kimbriki greenhouse gas emissions by 24,000 tonnes CO2-e. Landfill gas typically contains methane (45-60%), carbon dioxide (40-60%), nitrogen (2-5%) and other components such as oxygen, sulphur compounds, hydrogen, and carbon monoxide, which comprise less than 1%. The global warming potential of methane is 21-26 times that of carbon dioxide, so it is better to burn the landfill gas and convert it into Carbon Dioxide and

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water, rather than releasing into the atmosphere. Each year a combination of vertical and horizontal gas collection pipes is installed to ensure that gas can be collected from newly buried waste in landfill.

Water conservation and management

Stormwater is collected in a freshwater dam at the southern end of the site and used by the site water truck for spraying internal roads for dust suppression.

Leachate, which is a contaminated liquid that seeps from the landfilled waste, is collected, and stored in a fully lined dam. The collected leachate is treated in a specialised treatment plant on the site (constructed in 2018), which processes up to 500,000 litres per day of potentially harmful leachate and discharges the treated leachate into the local sewerage system in accordance with an agreement with Sydney Water.

Recent improvements

Kimbriki's first fully lined landfill cell in 2015 was one of the first in NSW to meet new standards in landfill practice required by the NSW Environment Protection Authority (EPA). This is done to prevent landfill leachate polluting local groundwater and surface waters. All landfill cells since that time have been fully lined and leachate captured for processing and safe disposal. Further sorting of the mixed waste before landfilling is our next focus to increase resource recovery further.

A partnership with reDirect Recycling to initially trial recycling engineered timber aimed at tackling the problem of engineered timber ending up in landfill has been very successful. 1,250 tonnes of wood waste was saved from landfill and made into new particle board as part of reDirect Recycling's efforts to create a circular economy to close the loop on waste whilst offering a cost saving for those who sort their loads and drop off into the engineered timber area. This has now become part of Kimbriki's permanent recycling offering.

The latest recycling innovation is the processing of excavated spoil brought to the site for landfilling to allow a portion of it to be sold and reused as Engineered New Material (ENM). ENM is utilised as a fill material for under roadways, parks and housing developments and more than 9,000 tonnes was manufactured and re-sold from waste brought to the site for disposal.

Kimbriki's new Clear Water Diversion System is a \$16 million infrastructure project providing a network of drains surrounding the site above the active areas to divert clean water around Kimbriki. It reduces the volume of stormwater entering the site by 80%, mitigating any risk of Kimbriki's stormwater drains and treatment ponds overloading in big rain events, as well as protecting the bushland environment surrounding Kimbriki.

Kimbriki Retains Certification to ISO 9001:2015 ISO, 14001:2015 and ISO45001:2018

In September 2023 Kimbriki successfully retained its ISO 9001:2015 ISO, 14001:2015 and ISO45001:2018 certification for its Integrated Management System. ISO means International Standards Organisation, an independent, non-government international organisation which is recognised globally and currently works with more than 700 organisations and over 100,000 experts from different industries and sectors.

The three standards Kimbriki were accredited for covered the three key areas of Quality, Safety and the Environment and this Certification process ensures that Kimbriki has well established systems to achieve a high standard in these three key areas as well as being audited by an external provider annually to ensure this standard is maintained.

More Information?

For more information on any of the aspects covered in this brochure please visit www.kimbriki.com.au, email kimbriki@kimbriki.com or contact via Kimbriki Resource Recovery Centre or phone 02 9486 3512, Monday to Friday 8.30am to 5pm.

