Government of **Western Australia**
Department of **Water and Environmental Regulation**

Fact sheet

# Mine site reusable crib kits
# Choices and tips

## Waste avoidance:
## Reducing single-use plastics on mine sites

**Reusable food containers and crib kits are effectively used on mine sites and in accommodation villages in Western Australia (WA). On some sites, crib kits and bring-your-own food containers have been standard for decades.**

**Crib kits can be easily implemented in these closed loop environments. Reusable containers reduce reliance on single-use packaging, whether plastic or paper based. They also avoid large volumes of disposable containers being sent to landfill. This is a positive outcome for the environment, sustainability goals and ESG targets.**

**Reusable crib kits not only reduce waste and environmental impacts but can also cut costs for mining and catering companies by eliminating recurring expenditure on disposable items.**

Courtesy Mineral Resources

The costs of disposable food containers and cups add up across the three meals a day. This cost is passed on by caterers to mining companies or contractors, built into quotes and invoices. A basic but functional crib kit with an insulated crib bag, three containers and cutlery set can be purchased for less than $50. Costs can reduce by about 20 per cent when kits are purchased in greater quantities.

**Examples from WA mine sites show the cost of reusable crib kits can be recovered in three to eight months due to the savings on no-longer-needed disposable containers. Savings of tens of thousands of dollars per month can be made – even higher when the reduction in waste management and landfill costs is factored in. Over time, this is a significant business saving, an environmental win and a move towards a circular economy. Consider the breakeven point for reusable crib kits at your mine site with a simple calculator.**

## Seals

Containers with strong seals are vital due to the nature of mine site work, where food is packed in a crib bag for transport on buses to other locations and can be bumped or knocked over. Steam release vents can be useful where microwaves are available on site . Strong seals are also relevant to coffee cups and insulated soup flasks.

**“We wanted robust, high quality crib kits. If you hand out rubbish people are not going to look after it.”**

## Materials

Some mine sites ban or restrict containers and coffee cups made from glass for operational safety reasons. Stainless steel, aluminium and durable reusable plastic containers are most commonly accepted and used. Plastic containers for sandwiches, food and snacks are preferable due to their light weight, low cost and ease of washing and drying. Microwavable plastic containers (some with steam release vents) are common and preferred. Stainless steel for insulated drink bottles and coffee cups is preferred because it is hard wearing and robust. Insulated drink flasks and containers are welcome in warmer seasons for cold water and in cooler seasons for hot soup and coffee or tea). Some insulated flasks can come with two lids – one for water and another for soup. Insulated crib bags with strong outer materials like PVC or canvas, strong zips, velcro seals, comfortable shoulder straps and a lining that can be wiped clean are preferred. A useful feature is a strong carabiner clip on crib bags to attach water bottles, flasks or cutlery sets.

## Sizes and shapes

In general, the bigger the container the more food is dished in. This can be factored into container choices if food waste or overconsumption are concerns.

**Providing a range of container sizes is recommended to ensure different foods can be easily packed and stored for crib lunches.** For example, square containers for sandwiches eliminates the need for cling wrap or aluminum foil, further cutting disposable packaging waste and associated costs. Common container sizes for crib kits are small (500 mL), medium (750 mL), large (900 mL or 1.5 Litre). Less commonly, round (800 mL) containers for salads and sandwich containers (300 mL) are used on some sites.

Many mine sites use plastic container brands that are readily available from supermarkets but are purchased in bulk from resellers or via their caterer or facilities management company. These range from transparent to brightly coloured stain-resistant containers.

Preferred coffee cup sizes are a large 12 oz (355 mL), 14 oz (420 mL) or an extra large 16 oz (475 mL). Some sites supply 20 oz ( 591 mL) insulated cups for coffee or iced coffee. These are generally plastic or insulated stainless steel cups with snap or screw-on plastic lids with a strong seal. Many sites have sourced coffee cups from promotional companies due to lower pricing.

Water bottles offered in crib kits are most often plastic or stainless steel with the latter usually insulated. Water bottles are commonly between 650 mL and 1.2 Litre. On some mine sites, people are required to bring their own refillable water bottles, which helps to significantly reduce the number of single-use water bottles. Water quality must be suitable and palatable for drinking. Site research has revealed concerns about water fountains with certain filters which, if the fountain is not used frequently, can lead to microbial issues. On sites where people reportedly don't trust the water quality, significant numbers of single-use water bottles are used. Full reverse osmosis filters and ice machines are provided on some sites. See Mine Site Reusable Crib Kit **Hygiene** and Mine Site Reusable Crib Kit **Infrastructure Requirements** fact sheets for more detailed information.

Crib bags need to be large enough to fit various containers comfortably but not too big to make them difficult to carry, transport on buses around the site or hang outside the dining hall/mess. Common sizes are 15 Litre and 30 Litre.

## Cutlery sets

Stainless steel cutlery is commonly used because it is strong, long lasting, relatively inexpensive and homely. Reusable cutlery is preferable to disposable bamboo or wood. Many mining sites use stainless steel or reusable hard composite plastic cutlery in their crib kits as well as stainless steel in the dining hall or dry mess. Sets can be basic with a fork, knife and spoon or more comprehensive containing six pieces – fork, knife, two spoons, straw and straw cleaning brush, in a zippered or drawstring bag. Some cutlery bags are mesh to enable fast drying. Bamboo and wooden cutlery are less favoured due to the mouthfeel, ongoing cost and disposable waste produced.

## Food safety

Ice bricks are optional for crib kits and can be provided if people have access to freezers. They can play an important role in food safety in hot environments. However, if fridges are available in crib rooms, containers can be removed from kits and placed directly in fridges. See Mine Site Reusable Crib Kits Hygiene fact sheet for more information.

## Roll out and purchasing

Consideration should be given to the roll out of new kits and which teams are responsible for assembly and distribution. Crib kits are generally collected before and after shifts at a set location or at check-in to accommodation. If new kits are supplied once a year to permanent staff, as on some WA mine sites, ensure this is known and the collection is noted in the personnel profile. Some sites report having adhoc distribution or kits provided at induction with the camp manager. Where sites have permanent and contract personnel it can be more efficient to have work area managers in charge of distribution to ensure those under their supervision receive their crib kits. Approved contractors can be notified ahead of time to give them the opportunity to bring their own crib kit or buy one from on-site retail stores.

On many mine sites, the insulated crib bag is often provided only once. Some suppliers are a one-stop shop with a large range of kits that can be tailored to needs. Crib kits can also be purchased from multiple suppliers to suit requirements.

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For more information on rolling out reusables in mining villages, visit the WA Government's Plan for Plastics webpage on the project Reusable solutions for mine site catering | Western Australian Government.