

WASTE

Strategic Significance

The environment in which the Company operates is remote, isolated and without local access to suitable waste infrastructure or facilities. This presents several challenges not only in terms of waste disposal, but also for reducing transport costs and associated emissions.

The Olaroz Lithium Facility is located 300km from the Jujuy provincial waste facility in Palpalá which receives most of the operation's non-hazardous waste. Regular transport of waste to this facility incurs a significant economic and environmental cost. As such, Orocobre is constantly seeking opportunities to reduce the waste generated on site and to recover and reuse materials to minimize waste management and transport costs.

Impact Boundary

This management approach disclosure refers exclusively to Sales de Jujuy S.A. and its activities.

Orocobre manages and measures all waste generated at the Olaroz Lithium Facility by both employees and contractors. The Company reports hazardous and non-hazardous waste, including organic, recyclable and non-recyclable waste.

Through periods of construction site-wide waste management practices are maintained with construction waste reported separately to operational waste where possible. Both operational and construction waste is managed in accordance with established policies, best practices and in compliance with local regulations and permits.

In addition to the domestic waste and hazardous waste Orocobre also considers mineral waste. As the facility has only been producing lithium for three years mineral waste management processes are being developed based on observed production and disposal trends and needs.

Some of the Company's waste reduction initiatives involve reusing recyclable waste as raw material for construction of infrastructure in the local communities. Waste reused by the communities for these activities is captured in Community [Case Studies](#) reported in the Company's [Sustainability Report](#) and also in Communities related Management approach disclosures.

Management Approach

Commitment

Policies that demonstrate the Company's commitment on waste management include:

- [Environmental Policy](#)
- [Sustainable Development Policy](#)

As part of Orocobre's commitment to advancing [SDG 12: Responsible Consumption and Production](#) the Company is constantly seeking ways to substantially reduce waste generation through prevention, reduction, recycling and reuse.

Management Systems

Orocobre's operations have an ISO certified Environmental Management System (ISO14001) which sets out its approach to waste management.

Waste at the Olaroz Lithium Facility is classified and treated according to its type and associated handling risks. Each area is responsible for classifying their waste, managing waste disposal in containers that are sufficiently and appropriately labelled and organising timely and efficient waste collection from their respective areas.

SDJ is a registered generator of hazardous waste and all hazardous waste is managed and transported in accordance with the standards set by National Law 24.051.

Organic and non-recyclable waste is sent to Jujuy's Provincial Waste Facility in Palpalá and recyclable waste is either stored on site and reused or sent to specific recycling facilities.

Given the high proportion of organic and recyclable waste, the Company is continuing to explore disposal opportunities that minimise the amount of waste being sent to landfill. During construction non-contaminated scrap metals and building materials are donated to Tinku Foundation, a working cooperative in Jujuy certified to receive recoverable waste for recycling or resale.

Mineral Waste

Besides domestic and hazardous waste, Orocobre also considers mineral waste on site. Unlike traditional mining operations or the operations of some of its brine-based peers, the Company's production process does not require tailings facilities. Liquid waste from the production process is immediately fed back to the pond system, so a tailings management system is not required.

The Company's mineral waste mirrors naturally occurring substances in the local environment, as it relates exclusively to salt buildup (mainly halite and sylvite) in the evaporation ponds. Management of this waste is done through a process of salt harvesting which is conducted every three years. Salt harvesting involves sequential draining of certain ponds and the removal of the majority of contained salts. These salts are then transferred to a harvested salt stockpile where leaching and drainage enables the recovery of highly concentrated lithium brine.

Monitoring and Reporting

Orocobre evaluates the effectiveness of its management approach through regular monitoring and reporting of key data and metrics, tracking progress against predefined objectives and targets. Internal data and reporting processes include daily operational updates, weekly operational performance reviews and monthly reporting on progress against operational targets.

The Company reports on waste performance annually in its [Sustainability Report](#) and in response to investor surveys such as S&P's Corporate Sustainability Assessment (formerly DJSI/RobecoSAM).

Waste reduction targets and associated cost savings are defined by the operational teams and monitored by operational and executive management on a monthly and quarterly basis.

Responsibility

The Environmental Manager within the Health, Safety and Environmental team monitors waste performance and works in close collaboration with departments of greatest impact to identify and evaluate opportunities for performance improvement.

Responsibility for site-based waste performance sits with the Operations Manager for operational waste and with the Project Director for construction waste associated with Expansion activities.

Accountability

The Company is integrating KPIs into the performance evaluation process for specific managers and employees at an operational level. Orocobre's Executive and Board performance process is also being reviewed to incorporate waste-related performance into their short term and long-term incentive criteria.

FY19 Update

In FY19 there were complications accessing the provincial waste facility in Palpala which highlighted the need for additional waste disposal alternatives.

The Company implemented temporary on-site solutions aligned with national environmental standards, enabling SDJ to maintain high standard waste disposal practices until the access issues with the Palpalá facility were resolved.

Greater attention is being placed on the development of local technology and infrastructure solutions such as the acquisition of a new incinerator, which would convert waste to an inert residue and reduce moisture content resulting in a 60% volume decrease for organic waste, enabling a reduction of both the environmental and financial cost of waste management and transport.

Due to the isolated location of the Olaroz Lithium Facility employees and contractors have their meals on-site which generates considerable amounts of organic and inorganic waste. During FY19, the Company adopted various new practices such as moving from disposable to reusable plastics, incorporating drying machines for dishes instead of using paper towels and providing reusable mugs and drinking bottles to employees.

Circular economy initiatives are also under constant evaluation with many initiatives already underway in the communities including the [Recycled Walls project](#) and the construction of furniture for local schools and businesses from wooden pallets recovered from site.

In FY20, the Company will be implementing a new waste management procedure to break down the recoverable and non-recoverable streams and decrease waste production. This will be accompanied by training on waste segregation and awareness through banners and audiovisual content dissemination across the site canteen and offices.

INDICATOR	CURRENT PERFORMANCE		TARGET
	FY19 (Abs)	FY19 (Intensity)	FY20
Waste Generation (by type)			
Non-hazardous waste generated	156.83 t	12.9 kg/person	<12.9 kg / person
Organic	74,41 t	6.1 kg/person	<6.1 kg/person
Recyclable	28,79 t	2.4 kg/person	<2.4 kg/person
Non-recyclable	53,63 t	4.4 kg/person	<4.4 kg/person
Hazardous waste generated	24,67 t	2 kg/person	<2 Kg/person
Waste Disposal (by disposal method)			
Recycled	28,79 t	-	>28.79
Landfill	128,34 t	-	<128.34
Recovery	---	-	>4.36
Treated	24.67 t	-	<24.67

For more Waste management Data refer to the [Environmental Performance Data](#).