14 POLLUTION MANAGEMENT

Related UNSDGs

Goal 12:
Responsible Consumption & Production

Why Is It Important

Our development and construction activities generate pollution such as dust, noise, air emissions, sediment runoff and construction-related discharges, particularly during land clearing, earthworks and building construction. If not properly managed, these can affect the surrounding environment, nearby communities and our workers.

Effective pollution management is therefore essential to ensure compliance with environmental regulations, protect surrounding areas and support responsible development.

OUR APPROACH

We are committed to preventing and minimising pollution arising from our development, operation and construction activities. We ensure compliance with applicable environmental laws and regulatory requirements and implement pollution control measures as part of construction planning and environmental management plans. Our environmental management practices are aligned with the principles of ISO 14001:2015 environmental management systems.

Key pollution prevention and control measures implemented across our operation and active construction sites are summarised below:

Area	Key Measures
Environmental governance and oversight	• Site coordinators oversee implementation of pollution controls and compliance with environmental management plans and regulatory requirements. • Pollution risks and required controls are identified at mobilisation and integrated into site planning and supervision. • Environmental inspections and monitoring are conducted where required to assess compliance and effectiveness of controls.
Air and noise management	• Dust suppression, material covering and physical containment measures (e.g., site hoarding or barriers) are implemented to minimise off-site dust dispersion. • Equipment maintenance and site traffic management practices are applied to reduce dust and noise impacts. • Construction activities are managed in accordance with permitted working hours and applicable noise limits, with mitigation measures where required.
Effluent, runoff and land disturbance management	• Drainage, erosion and sediment control measures are implemented during earthworks to prevent off-site discharge impacts. • Silt traps, sedimentation ponds, and perimeter drainage systems are installed to capture sediment and prevent muddy runoff from leaving project sites. • Site access points and surrounding roads are monitored and cleaned where necessary to prevent mud carry-out onto public roads. • Effluent monitoring and treatment measures are applied where required prior to discharge. • Spill response procedures are established to manage accidental releases. • Licensed and accredited service providers are engaged where required for environmental sampling and testing.

Area	Key Measures
Contractor management and continuous improvement	• Contractors are required to comply with environmental and pollution control requirements as part of contractual obligations. • Environmental incidents, if any, are investigated and corrective actions implemented. • Lessons learned from inspections and site experience are used to improve environmental management practices.

The implementation of these environmental management and pollution control measures forms part of our project development and construction costs. This includes environmental monitoring, and installation of erosion, sediment and discharge control measures to prevent and minimise pollution impacts during construction.

Environmental Monitoring

We conduct environmental monitoring at active construction sites where required under regulatory approvals and environmental management plans. The requirement for monitoring is determined by project-specific Environmental Impact Assessment ("**EIA**") approvals and conditions set by the Department of Environment Malaysia. Monitoring is carried out by accredited independent laboratories, which provide third-party measurement and verification of environmental conditions, to assess air quality and verify compliance with applicable environmental standards.

Construction activities may generate localised air pollutants from diesel-powered machinery, generators, and construction vehicles, including particulate matter and combustion-related gases such as nitrogen oxides ("**NOx**") and sulphur oxides ("**SOx**"). We do not directly measure emissions at source. Instead, we monitor ambient air quality at site boundaries to assess pollutant concentrations in the surrounding environment, in line with regulatory requirements.

During FY2025, environmental monitoring was conducted at sites where such monitoring was required under EIA or regulatory conditions, representing 70% of active construction sites. The remaining sites did not require environmental monitoring based on the nature, scale and regulatory classification of the project.

No material exceedances of applicable regulatory limits were recorded during the year.

The table below summarises air quality monitoring results for active construction sites where monitoring was conducted during FY2025.

Active Project Sites	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)	CO (µg/m³)	O_3 (µg/m³)
Regulatory Standard Limit	35	100	80	70	10	100
Tropicana Grandhill – Twinpines	11	42	<5	<5	<2	<10
Tropicana Paradise – Villa	14	15	Nil	Nil	Nil	Nil
Tropicana Cenang – Assana & Merrisa	Nil	55	Nil	Nil	Nil	Nil
Tropicana Alam – Avisa Phase 1 & 2	26	44	<2.6	<1.9	<3.56	<24
Tropicana Metropark - Residences South Place 2	24	72	<5	<5	<2	<10

Active Project Sites	$PM_{2.5}$ (µg/m³)	PM_{10} (µg/m³)	SO_2 (µg/m³)	NO_2 (µg/m³)	CO (µg/m³)	O_3 (µg/m³)
Tropicana Uplands – Fraser Height	10	27	<5	<5	<2	<10
Lido Waterfront Boulevard – Skypark Kepler	Nil	43	Nil	Nil	Nil	Nil

1. Reported values represent average concentrations derived from periodic air sampling conducted in accordance with project-specific monitoring requirements.

Pollution Risk Assessment & Management

Pollution risks vary depending on site conditions, development scale and surrounding environment, and are managed accordingly.

- Hillside developments, such as Tropicana Grandhill and Avalon, involve significant earthworks over sloping terrain. These sites require enhanced erosion and sediment control measures, drainage management and closer environmental monitoring to manage runoff and protect surrounding areas.

- Coastal and tourism-interface developments, such as Tropicana Cenang, are located near beachfront and tourism areas. These sites require careful management of drainage, construction discharges, dust and noise to minimise impacts on the surrounding coastal environment, neighbouring properties and public areas.

- Coastal reclaimed land developments, such as Lido Waterfront Boulevard (Skypark Kepler), are developed in accordance with approved coastal and environmental conditions, with a focus on site stabilisation, drainage management and control of construction-related discharges.

- Large township developments on previously cultivated or disturbed land, such as Tropicana Alam, involve phased earthworks across larger land areas. These sites are managed through progressive implementation of erosion and sediment controls, drainage management and environmental monitoring appropriate to the scale and duration of development.

- High-rise and mixed-use developments within established areas, such as Tropicana Metropark, involve intensive construction activities within more confined footprints and in proximity to existing infrastructure and occupied properties. These projects require careful management of dust, noise and construction discharges, as well as closer site supervision and monitoring to minimise impacts on surrounding areas.

We also work with local authorities and regulators through planning approvals, environmental management plan submissions and compliance inspections. Environmental considerations are incorporated at the design and planning stage to reduce pollution risks during construction.

OUR PERFORMANCE

We monitor environmental compliance and pollution control implementation across our active construction sites. Across the reporting periods, our sites operated within applicable environmental requirements, with pollution controls implemented and no environmental fines or pollution-related incidents recorded.

Performance Indicator	Unit	FY2025	FY2024	FY2023	Target
Environmental non-compliance incidents and penalties[1]	RM	**Nil**	Nil	Nil	Maintain zero environmental fines and penalties annually

1. *Refers to confirmed breaches of environmental laws and regulations (including the Environmental Quality Act 1974 and its subsidiary regulations, EIA requirements, and relevant local authority and environmental management plan conditions), including both regulatory penalties (fines) and pollution-related environmental incidents.*

15 WASTE MANAGEMENT

Related UNSDGs

Goal 12:
Responsible Consumption & Production

Why Is It Important

We recognise that our construction and operation activities are resource-intensive and result in significant waste. We understand the potential impacts this waste can have on human health, the environment, and natural resources, as well as the hidden costs associated with inefficient waste management, such as shadow costs and other indirect effects. In response, we are committed to minimising our environmental impact through effective resource management and waste reduction strategies.

OUR APPROACH

We are committed to ensuring waste generated from our development and operation activities is properly managed and reduced where feasible. This includes requiring contractors to implement appropriate waste handling, segregation, reuse, and disposal practices, and engaging licensed waste contractors to ensure waste is managed in accordance with environmental regulations. Our approach is guided by established environmental management practices aligned with ISO 14001 principles and in compliance Solid Waste Management (Act 673) and Environmental Quality Act 1974.

Area	Key Initiatives
Governance and contractor requirements	• Waste management requirements are embedded into contractor appointment, project specifications, and environmental management plans • Proper waste handling, storage and disposal practices are implemented at project sites in accordance with regulatory requirements
Waste reduction and reuse	• Waste reduction is considered during project planning and construction, including material planning and selection of appropriate construction methods, where feasible • Reuse of suitable materials such as excess concrete, excavated soil and temporary works materials within project sites is encouraged, where appropriate
Waste segregation and recycling	• Construction waste is segregated at designated storage areas at project sites • Licensed contractors are engaged for recycling or disposal, where applicable