

4.4.2 Waste Management

▲ISO 14001
(valid from 2024 to 2027)



(1) Policies/Commitments

- Catcher, in line with the ISO 14001 Environmental Management System, adopts a systematic approach that extends from the source to post-assessment, enabling effective waste reduction, enhanced resource efficiency, and the advancement of a circular economy.

(2) Goals & Targets: Reuse & Recycle

	2024 Goal and Actual Performance		Short-term Goal (1~3years)	Mid-term Goal (3-10 years, till 2030)	Long-term Goal (>10 years, till 2050)
Waste Recycle Rate (including reuse rate)	Parent Company	Waste Recycle Rate 95.35% >90% Goal achieved ✓	>90%	>95%	More than 95% completed
	Group	Waste Recycle Rate 98.23% >50% Goal achieved ✓			
Hazardous Business Waste Reduction	Group	Hazardous business waste 0.52% <1% Goal achieved ✓	< 1.0%	< 0.8%	< 0.6%

(3) Responsibilities

- In accordance with internal operational management procedures, the Environmental Protection Department is responsible for leading and monitoring the performance of other departments.

(4) Resources

- Dedicated personnel at the waste storage area of each factory; handheld five-in-one (O₂/LEL/CO/VOC/H₂S) gas detectors.

(5) Grievance Mechanisms

- Public statement, employee feedback and grievance channels, internal environmental protection department.



(6) Specific Action Taken for the Year**❖ Reduce Weight of Sludge through sludge Drying System**

Catcher has introduced the sludge drying system to effectively reduce more than 50% weight of sludge produced in the manufacturing process. The outsourcing of sludge disposal demonstrated excellent performance. This has greatly reduced the environmental load caused by the terminal waste treatment, and eases the cost of sludge treatment as well as the burden on cleaning and transportation suppliers.

❖ Recycle & Reuse of Plastic Material Waste

Catcher has introduced a waste plastic recycling project, where The Company uses such equipment as crushers, extruders, and plastic injection machines to grind the waste plastics generated in the manufacturing process, with the jigs no longer used to be re-granulated and made into jigs through the injection mechanism, so as to achieve waste plastic recycling and reduce waste generated. Moreover, this method will also relieve the environmental burden of air pollutants caused by incinerator combustion and bottom ash landfill.

❖ Hazardous Business Waste Management and Reduction

Catcher manages business waste in strict accordance with internal procedures and conducts regular evaluations of hazardous waste removal and treatment suppliers to ensure compliance with all regulatory requirements and contractual obligations. At the same time, Catcher is proactively incorporating lower-impact chemical raw materials during the product development stage, thereby minimizing the need for waste containers containing mixed chemicals.



▲ Catcher's Sludge Drying System

▼ Catcher Waste Storage Area



Steps of Waste Management



Through waste reduction at source, safe storage, proper disposal and responsibilities tracking, Catcher continuously manages the waste effectively.

Responsibility Tracking

Environmental Protection Department annually confirms the domestic qualified removal, disposal and reuse companies, and then invites the qualified companies to come to the factory to explain their waste disposal work flow. The qualified companies need to provide the report of waste inspection proved by the third-party verification unit. After that, Catcher confirms the characteristics of waste with the qualified companies, and approves price, formulates contract and contracts in accordance with legality.

Proper Disposal

Catcher entrusts a third-party verification unit with waste inspection every year. And empty cars are confirmed and weighed under supervision, cars are followed randomly, and inspections are requested as needed. If waste disposal companies are found to be involved in illegal activities, they will be subject to inspections of the highest standards to ensure the legitimacy of their waste disposal workflow.

Safe Storage

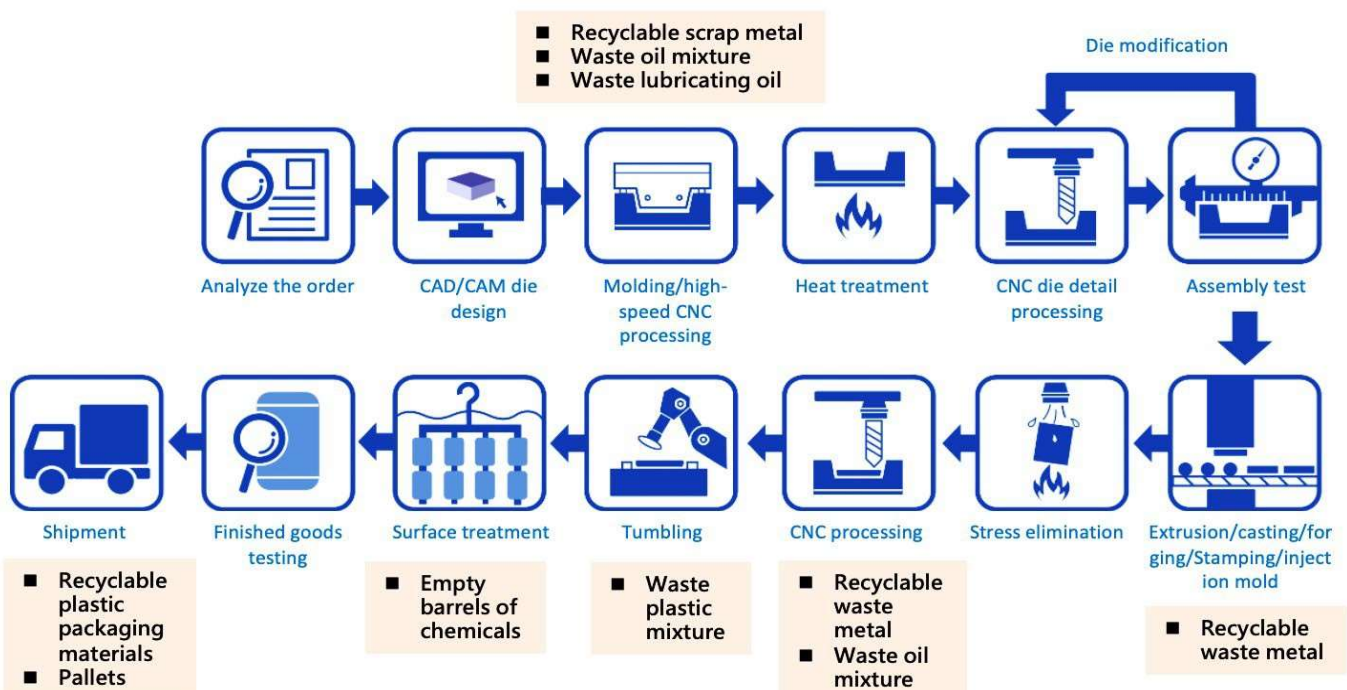
Safe storage is ensured by carefully distinguishing general wastes from hazardous wastes and storing them appropriately. In addition, fire extinguisher, lighting, or emergency sprinkler facilities have also been installed.

Waste Reduction at the Source

Catcher continuously promotes waste reduction and classification at the source among employees, and strengthens the drive towards a paperless green company. Through the implementation of an electronic form approval system, paper usage has significantly decreased. Additionally, employee payroll statements are now delivered electronically through email notifications. In our manufacturing processes, Catcher is continually reducing the proportion of hazardous industrial waste.



General Business Waste Generated During the Manufacturing Process





Waste Categorization and Statistics

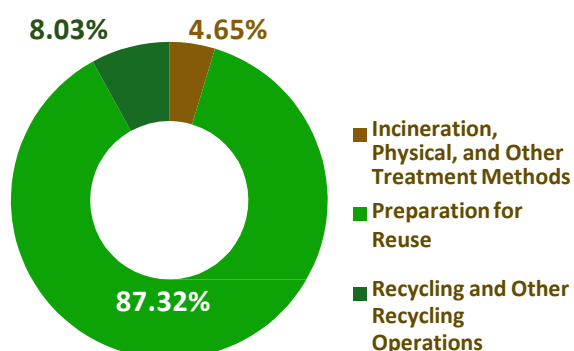
In 2024, Catcher Group generated a total of 74,273.68 metric tons of waste, consisting of 0.52% hazardous business waste and 99.48% general business waste. The Company integrates resource conservation and efficiency into process development and product design, with the dual objectives of reducing raw material consumption and saving energy. To further strengthen circular economy practices, Catcher also develops and optimizes proprietary resource utilization technologies to enhance recycling performance.

In compliance with local regulations and through the application of available technologies, waste is transported off-site for treatment, including preparation for reuse, recycling, and other recovery operations, thereby maximizing resource efficiency. As a result, the Parent Company achieved a waste reuse rate of 95.35%, while the Group's reuse rate reached 98.23%. Waste intensity was recorded at 4.11 metric tons per NT\$1 million of revenue. Looking ahead, Catcher remains committed to improving its waste reuse performance and advancing resource circularity across the Group.

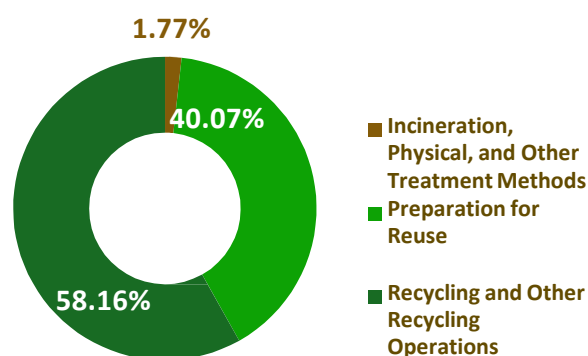
Item	2022		2023		2024		
	Parent Company		Parent Company		Parent Company	Group	
	Weight(tons)	Ratio (%)	Weight(tons)	Ratio (%)	Weight(tons)	Weight(tons)	Ratio (%)
Hazardous Business Waste	60.71	0.52%	0.00	0.00%	17.79	389.10	0.52%
Reuse Waste	0.00	0.00%	0.00	0.00%	0.00	16.59	0.02%
Incineration, Physical, and Other Treatment Methods	60.71	0.52%	0.00	0.00%	17.79	372.51	0.50%
General Business Waste (Including Waste Materials)	11,587.55	99.48%	7,139.65	100.00%	8,331.95	73,884.58	99.48%
Reuse Waste	10,785.83	92.12%	6,698.03	93.81%	7,961.20	72,943.19	98.21%
Incineration, Physical, and Other Treatment Methods	801.72	6.85%	441.62	6.19%	370.75	941.39	1.27%
Total	11,648.26	100.00%	7,139.65	100.00%	8,349.74	74,273.68	100.00%

Note: Waste recycling includes preparation for reuse, recycling and other recycling operations.

Parent Company Waste Reuse Mix



Group Waste Reuse Mix



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4.4.3 Water Resource and Wastewater

(1) Policies/Commitments

- In accordance with the ISO 14001 Environmental Management System, Catcher implements comprehensive water resource management with the aim of achieving sustainable coexistence with the environment and ecology.

(2) Goals & Targets: Reduce the use of water and continuously control water quality to minimize the impact of environmental ecology.

Goals & Target		2024 Actual Performance	Short-term Goal (1~3years)	Mid-term Goal (3-10 years, till 2030)	Long-term Goal (>10 years, till 2050)
Effluents water quality control complies with regulatory standards		100% Goal Achieved ✓	100%	100%	100%
Recycled Water %	Parent company	27.23% >25% Goal Achieved ✓	>25%	>26%	>27%
	Group	18.12% >16% Goal Achieved ✓	>16%	>17%	>18%

Note: A new Group target has been established following the inclusion of subsidiary information disclosed in 2024.

(3) Responsibilities

- In accordance with internal operational management procedures, Catcher's wastewater treatment plant is responsible for leading and monitoring wastewater management activities across relevant departments.

(4) Resources

- The wastewater treatment plant is equipped with dedicated personnel, as well as nickel on-line analyzers and COD on-line analyzers to ensure effective monitoring and control.

(5) Grievance Mechanisms

- Catcher provides a public statement and has established employee feedback and grievance channels to address water-related concerns in a transparent and responsive manner.

(6) Specific Actions in 2024

- Catcher values the protection of environmental water resources and has continued to implement a variety of water-saving measures to reduce tap water consumption, wastewater treatment, and discharge. By improving the internal water recycling rate, the Company successfully saved approximately 1,165,407 metric tons of water this year, thereby enhancing resource efficiency and minimizing waste.



Water Conservation Promotion Measures

Ren'ai Factory

- ◆ Recycling concentrated discharge water from the air-conditioning cooling tower for reuse in the washing tower.
- ◆ Recycling and Reusing grinding ultrapure water through filtration.
- ◆ reusing grinding wastewater through filtration.
- ◆ Recycling overflow water from the cooling tower for reuse in the washing tower.

T.I.P. Factory

- ◆ Discharged grinding water is recovered, filtered, and reused.
- ◆ Discharged cooling water is recovered and reused in the scrubber.

Y.K.I.P. Factory

- ◆ Grinding wastewater is recycled and reused through filtration.
- ◆ Concentrated discharge water from the HVAC cooling tower is recovered and reused in the scrubber.
- ◆ Additional recovery pipelines have been installed from the ultrapure water tower to the pure water tower.
- ◆ Wastewater from the washing line's cleaning section is recovered and reused in the grinding water recovery system.
- ◆ Ultrapure water from the Tungli single-shaft and three-shaft drawing lines is recovered and reused.
- ◆ Steam condensate is recovered and reused.

SQ Factory

- ◆ Anode ultrapure water is recycled for reuse.
- ◆ RO concentrate water is recycled for washing tower use.
- ◆ RO concentrate water is recycled for restroom use.
- ◆ Effluent is reused in the wastewater treatment plant for calcium hydroxide dosing.



Water Withdrawal, Water Consumption, Water Discharge

In 2024, Catcher Group's tap water consumption from public utilities totaled 5,267,764 metric tons, as measured by calibrated water meters. The volume of recycled water reached 1,165,407 metric tons, accounting for 18.12% of total water use and representing an increase of 1.45% compared with the previous year.

The Group's total water consumption amounted to 6,433,171 metric tons, with a water intensity of 355.73 metric tons per NT\$1 million in revenue. Total wastewater discharge was 4,702,817 metric tons, all released into surface water bodies.

All data were compiled from the Company's discharge water meters, which are externally calibrated at least once per year to ensure accuracy and reliability.

Unit: Metric Tons

A. Water
Withdrawal
(From Tap Water)

B. Recycled
Water Usage (%)

Total Water
Consumption
(A+B)

C. Water
Discharge

Total Water
Consumption
(A-C)

Parent Company			Group	
2022	2023	2024	2023	2024
1,398,773	876,429	1,047,339	4,574,787	5,267,764
621,657 (30.77%)	343,291 (28.14%)	391,825 (27.23%)	915,221 (16.67%)	1,165,407 (18.12%)
2,020,430	1,219,720	1,439,164	5,490,008	6,433,171
1,173,493	737,278	908,862	3,849,359	4,702,817
225,280	139,151	138,477	725,428	564,947



Wastewater Management Procedures and Standards

Catcher has established comprehensive wastewater management procedures and standard operating protocols requiring all treatment processes to comply with applicable discharge standards and regulatory controls. Unlawful discharge is strictly prohibited. In the event of any equipment or facility malfunction at a wastewater treatment plant, the root cause must be promptly identified and addressed to prevent further environmental impact. Where necessary, production activities—whether partially or in full—will be suspended until the issue is fully resolved to ensure compliance and environmental protection.

In compliance with environmental protection regulations, Catcher's facilities are equipped with two separate discharge systems: a rainwater gutter for stormwater collection and an effluent channel for directing wastewater to on-site treatment plants. The Company generates two main categories of wastewater: domestic wastewater from employees and industrial wastewater from manufacturing processes.

Domestic wastewater is treated through aeration and biological processes. Industrial wastewater, primarily acidic in nature, is generally treated using anodizing processes. At the wastewater treatment plant, acidic wastewater undergoes neutralization, coagulation, sedimentation, and sand filtration, after which it is combined with domestic effluent for final discharge.

To ensure compliance, trained personnel conduct daily effluent testing in accordance with statutory discharge water quality standards. Test results consistently confirm that effluent not only complies with but frequently outperforms regulatory requirements.



▲ Catcher's Wastewater Plant and Its Operations



Effluent Discharge Monitoring Information

Major Operating Factories		Destination		Water Quality Test Item			
				Water Temperature (°C)	pH Value	Suspended Solids (SS) (Unit: mg/L)	Chemical Oxygen Demand (COD) (Unit: mg/L)
Parent Company	Ren-ai Factory	Ditch of District Office	Standard	May~Sep. < 38°C Oct.~Apr. < 35°C	6-9	30	100
			Test Results	26.8	6.7	8.6	39.9
	T.I.P. Factory	T.I.P. Wastewater Treatment Plant	Standard	< 42°C	5-9	320	520
			Test Results	28.6	6.8	1.0	10.3
	Y.K.I.P. Factory	Y.K.I.P. Wastewater Treatment Plant	Standard	May~Sep. < 38°C Oct.~Apr. < 35°C	6-9	400	500
			Test Results	27.6	7.1	3.1	13.6
Subsidiary	SQ Factory	SQ Wastewater Treatment Plant	Standard	40°C	6-9	400	500
			Test Results	31	7.6	30	93

