台灣自來水公司
TAIWAN WATER CORPORATION

# 2026 TWC Sustainability Report



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# About the Report

Taiwan Water Corporation (hereinafter referred to as "TWC" or "the Company") is committed to operating its core business and providing customers with superior quality services while continuously upholding the spirit of corporate citizenship and fulfilling its corporate social responsibility. This report is the 17th Sustainability Report published by TWC. It is structured around five main pillars: Who are we, Accountable governance, Transition for Sustainability, Environmental performance, and Relationship enhancement. The report discloses TWC's environmental, social, and corporate governance (ESG) performance and management policies for the year 2025. Through this report, we aim to help the public and stakeholders understand TWC's commitment to fulfilling its corporate citizenship responsibilities and pursuing sustainable development, and to share our annual achievements. This report generally maintains the same disclosure structure and boundary as the previous report (2025). If there are revisions of historical data in this report, they were explained. Financial units in the report are primarily expressed in New Taiwan Dollars (NTD). Any acronyms or specialized terms mentioned are annotated and explained on the respective pages.

## Reporting Principles

TWC report refers to the GRI Sustainability Reporting Standards (GRI Standards), issued by the Global Reporting Initiative (GRI). It follows the 8 reporting principles of the GRI 2021 version: accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability. The report is compiled in alignment with the Sustainability Accounting Standards Board (SASB) standards for the Water Utilities & Services industry. It also echoes the United Nations Sustainable Development Goals (SDGs) and climate-related financial disclosures for listed companies, aiming to cover Material topics of concern to stakeholders as comprehensively as possible to demonstrate the company's sustainable performance.

## Reporting Boundary and Calculation Basis

This report covers TWC's relevant operational sites and activities in Taiwan from January 1, 2025, to December 31, 2025 (including TWC Headquarters, Regional Branches, and Region Engineering Offices). Some content also covers information from 2023 to 2025. Policies and management guidelines use the information available at the time of publication, so they may reflect information from early 2026. Statistical data is derived from TWC's internal statistics and surveys and is presented using internationally accepted indicators. Any estimations are noted in the relevant chapters. Financial data is based on publicly available information audited and certified by accounting firms, while some data cites public information from government agency websites, presented in commonly used numerical descriptions. Financial statements are prepared in accordance with International Financial Reporting Standards (IFRS), and financial data is in NTD.

## Editing and Review

The editing of this report is carried out collaboratively by an editorial team comprising representatives from various departments. Team members review and revise relevant content and data. After being verified by the heads of the responsible departments, the Department of Planning is responsible for overall planning, communication and integration, data compilation, and final editing. The finalized content is verified by an independent third-party organization and subsequently approved for issuance by the Chairman.

## Third Party Assurance

For the compliance with the GRI Standards and the AA1000 AS v3 assurance standard, this report has been commissioned by an independent and credible organization, AFNOR Asia Ltd., to complete an external assurance following the spirit of the AA1000 Type 1 Moderate level of assurance (the assurance statement is detailed in the Appendix). Financial information has been audited by KPMG and reported to the National Audit Office.

## Report Issuance Time

TWC regularly publishes a "Sustainability Report" annually, which discloses relevant information in the Sustainable section of the company's official website. Previous edition: Published in August 2025. Current edition: Published in July 2026.

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▼ Taiwan Water Corporation



# Message from the Chairman

2025 is a year to advance numerous projects and review milestone targets. Whether it involves climate response and energy transition, or a people-centric development direction, it is clear that sustainability is a path growing ever clearer, and a journey we must accelerate. Concurrently, we have witnessed various challenges in Environmental, Social, and Corporate Governance (ESG). TWC has also gone through many painful yet reflective experiences that we must confront courageously and resolve pragmatically. From the earthquakes early in the year to the disaster-inducing torrential rains in southern Taiwan caused by Typhoon Danas and the southwest monsoon in July, the debris flow disasters caused by the Matai'an River dammed lake (馬太鞍溪堰塞湖) in September, and the intense autumn typhoon rainfall in October, these events not only caused direct losses to civilian life but also damaged numerous water supply facilities. Internationally, economic uncertainties, regional turbulence, and the development of AI are featured in the media, presenting an unstoppable impact on corporate operations. Following these 2025 shocks, whether it is the threat to asset availability or the operational costs and management challenges under extreme events and uncertain factors, we are facing a clear warning: Sustainability is no longer a future ambition. It is a business imperative. The events of 2025 reinforced the urgent need for resilient infrastructure, adaptive operations and long-term stewardship.

TWC is the main water supply company in Taiwan, shouldering the critical responsibility of providing industrial water to support Taiwan as the core of the global high-tech supply chain. Our mission is to "safeguard every drop of water, ensure a stable water supply, and deliver high-quality drinking water." The water utility sector is no longer merely an infrastructure provider; it is the critical defense line determining the nation's overall climate resilience and economic competitiveness. In this era full of challenges, we remain relentless, striving forward amid change, continuously working in areas such as water supply resilience, technological development and innovation, climate action, financial resilience, and social inclusion.

## Building Comprehensive Water Supply Resilience by Integrated Management

Under the pressure of changing drought and flood patterns and the increasing intensity of natural disasters in Taiwan, the resilience of our water supply has been repeatedly tested. "Sufficient Supply, Superior Quality" is the mission TWC members never forget. We continuously adhere to overarching plans and guidelines, such as the "National Water Resources Master Plan" and the "Forward-Looking Infrastructure Development Program - Water Environments." Centered on the core strategies of "Diversified Water Sources, Strong Backup, Promoting Water Conservation, and Reducing Leakage," we are driving critical water resilience plans.

In terms of management, we consider operations from a watershed perspective and review our management zoning. In 2025, the downstream water supply project of the Niaozueitan Artificial Lake (鳥嘴潭人工湖) was completed, providing 210,000 tons of surface water daily to Changhua and 60,000 tons

to Nantou. Consequently, TWC integrated Nantou and Changhua counties—which belong to the Wu River ( 烏溪 ) and Zhuoshui River ( 濁水溪 ) systems—under the same management branch (the Nantou area was moved from the Fourth Branch to the Eleventh Branch). This aligns with the principle of "managing water supply areas sharing the same water source under a single branch," centralizing the responsibilities for water source dispatching, inspection, water treatment operation, and business management, thereby integrating watershed management efficiency. Regarding dispatching capabilities, we continuously promote cross-regional Backup Pipeline Projects to perfect the interconnection mechanisms of the northern, central, and southern water supply systems. In August of last year, the "Fuzhou Pumping Station to Banxin Plant Pipeline (7) Shield Tunneling Project," which shares the responsibility of strengthening the resilience of the Banxin water supply system, was successfully broken through, significantly enhancing dispatching capabilities in the north. For distribution network maintenance and leakage reduction, TWC has extensively promoted various smart and AI applications in recent years with initial success. Through sensing technology and analysis, we can more efficiently locate leaking pipelines for repair, reducing resource waste.

Faced with natural disasters, TWC has refined its response capabilities through repeated experience. During last year's disaster on the Matai'an River, we immediately established a forward command post, coordinating human resources for a full-scale response, setting up 33 temporary water supply stations and deploying 28 water trucks to alleviate the needs of the people. Furthermore, TWC collaborated with the Army, the Water Resources Agency, and local authorities to repair the water supply, and a special task force composed of TWC and Taiwan Power Company conducted on-site inspections to assess local water and electricity maintenance needs. In addition, we waived all water bills for affected users from September to October to alleviate the burden of social reconstruction.

## Revolutionizing Water Supply Services and Leak Detection Efficiency with Innovative Technology

AI development is sweeping the globe, driving the rapid development of various smart tools. TWC understands that, given limited resources, our only viable path forward is to leverage technology, promote smart operations, and continuously innovate. While the public focuses on the energy demand pressure brought about by AI development, TWC is concurrently thinking ahead, paying close attention to the potential impact of AI and data center expansion on water demand. Therefore, we cautiously continue to develop various potential applications, striving to create a forward-looking and sustainable water utility paradigm on this technology island.

In 2025, TWC further promoted smart operations across services, operations, and management. On the service end, we introduced smart meter reading, a water usage behavior analysis platform, intelligent customer service, and online pipeline management. On the operations and management end, we continuously optimize the smart utilization of water treatment plants and water supply facilities to enhance overall energy efficiency. This includes AI-enabled Precision Dosing, AI-acoustic leak-detection technology, smart water quality sampling, uncrewed vehicle, and vessels. Through the "Water Supply Monitoring Platform" we utilize digital technology to

upgrade monitoring techniques, reducing failure rates and maintenance costs while optimizing management decision-making and emergency response efficiency.

By introducing a comprehensive technological leak-detection process, TWC actively monitors supply conditions and targets leakage hotspots, thereby enhancing pipeline repair efficiency and water supply stability. Building on this foundation, we expect to expand interactive leak-detection technologies by the end of 2026 to further improve leak-detection efficiency. In 2025, the company detected a total of 4,003 underground leaks, nearly 40% of which were discovered using auxiliary leak-detection technologies.

## People-Centric: Co-creating a Safer, More Inclusive Society

Water is the foundation of social equity and resilience. To ensure everyone has access to safe and affordable tap water, TWC has long been dedicated to completing the "waterway puzzle" in every corner of Taiwan. Targeting rural areas with lower water supply coverage rates, we actively cooperate with the government's water supply improvement plans for areas without tap water. We conduct briefing sessions in various townships to listen to local needs, and we construct water treatment plants, wells, and utilize hyporheic water to enhance water supply capacity. For example, the tap water coverage rate in the Pingtung area increased from 49.39% in 2016 to 73.25% in 2025, significantly improving residents' water usage conditions and realizing the UN SDG 6: "Clean Water and Sanitation."

While increasing coverage, We also focus on the water quality and safety of existing users. In response to the long-standing problems of insufficient water supply stability in old highland communities across Taiwan due to terrain conditions, pipeline age, and aging equipment, TWC cooperated with the government's "Improvement Plan for Pressurized Water Receiving Equipment in Old Highland Communities". Through a public-private partnership model, TWC assisted communities in improving pressurized water receiving equipment and replacing pipelines with high-quality ductile iron pipes (DIP) and stainless steel corrugated pipes (SSP), effectively improving water supply stability and water safety.

TWC respects "Gender Equality" and "Social Inclusion." When promoting various water supply projects, we proactively hold briefing sessions deep within communities, extensively listening to the opinions of women and diverse groups, respecting differences, and eliminating discrimination to promote substantive equality and ensure that communication and decision-making processes are more inclusive.

## Building Robust Financial Resilience and Governance

For over fifty years, TWC has cared for civilian livelihoods and economic development. The current water tariff is not profit-driven. However, TWC still does its utmost to strengthen its financial position and resilience. Through various methods, we control costs and generate revenue while implementing openness and transparency, regularly holding "Operational Revenue and Expenditure Control

Meetings" to track and review spending and income. On the other hand, we continuously implement enterprise risk identification and management to reduce operational and management risks. In 2025, TWC initiated climate change-related impact analyses, conducting climate risk identification and assessing the scope and magnitude of potential financial impacts from climate risks and taking preventive measures.

## Every drop counts, creating a sustainable Taiwan.

We promise that TWC will remain the most stable source of living water for Taiwan's continuous economic prosperity, as well as a strong backing for the public in an era of high uncertainty, jointly facing the challenges of net-zero transition and short-term volatility. Let us join hands to cherish every drop of water and collectively converge into a sustainable Taiwan with climate resilience, technological and economic vitality, and vivid life.

Sincerely,

李嘉榮

**Jia-Rong Lee**

**Chairperson**



# 2025 Highlights and Awards

## 2025 Highlights

### Governance

- Conducted **35 sessions** of annual anti-corruption preventive business integrity promotion courses with **2,006 participants**
- Held **22 briefing sessions** on public interest whistleblower protection with **1,235 participants**
- **TWC No.1 water quality sampling boat** was tested and commissioned to enhance water quality sampling capacity and efficiency
- Achieved an **"Excellent"** rating in the annual corporate governance evaluation commissioned by the Ministry of Economic Affairs
- Replaced **462 km** of pipelines in 2025 (0.69%)
- Conducted **708 inspections** at water treatment plant sites, exceeding the target by **117%**
- **100% completion** of the annual anti-corruption risk assessment across all regional branches
- Female board members reached **40%**
- Water Quality **Compliance Rate reached 99.95%**
- Executed Water Safety Plans (WSP) across **65 stations**

### Environment

- Cumulative renewable energy installations reached **84.625MW**, with an estimated annual power generation of **108.5 GWh**
- Hushan small hydropower plant commenced operation, with a **1.5MW installed capacity** and an estimated annual power generation of **9 GWh**
- Completed **12** ecological inspection and supervision
- **100% compliance** with effluent standards
- Greenhouse gas emissions reduced by **100,704 ton $CO_2e$**
- **99.9%** annual reuse rate of treated water and sludge
- Water leakage rate **reduced to 11.52%**
- **100% coverage** of ISO 45001 and TOSHMS dual certifications across all operating areasii

### Social

- Total employee training reached **85,638 hours**, with training expenditures of **NT$137,527,213**
- Organized **31 classes** on gender mainstreaming in 2025 with **1,932 participants** (**male** proportion at **61.39%**)
- **Retention rate** after parental leave reached **74%** in 2025 (+11%)
- **3** labor directors on the board; held **4** labor-management meetings annually
- **Resolved 100%** of the **4,934** water quality complaint incidents

# 2025 Awards and Recognitions

TWC's "Industrial Safety Insight" project stood out among 14 teams in the "2025 AIGO" hosted by the Administration for Digital Industries, Ministry of Digital Affairs, winning the AIGO Value Impact Award.

Gold Award at the TSCA Sustainability Reporting Awards and secured the inaugural Sustainability Individual Performance Award - Water Resources Management Leadership Award.

Three prestigious honors at the 5th TSAA Taiwan Sustainability Action Awards:

- Mobile Water Quality Testing Vehicle: Real-time detection and traceability to enhance water supply resilience and ensure public water safety.
- Improvement of Old Highland Communities: Replacing pipelines and equipment to significantly reduce water leakage and bill burdens while focusing on environmental carbon reduction.
- Small Hydropower Generation Demonstration: Constructing Taiwan's first closed-pipeline Small Hydropower Generation system to drive energy transition.

Excellence Award in the 2024 National Environmental Education Action Plan.

The office park construction project won the Ministry of Labor's 19th Golden Safety Award (2025) and the Taichung City Government's Golden Safety Project Special Award

Hu Hongyue of the Fifth District Management Office won the Ministry of Labor's Outstanding Occupational Safety Personnel Merit Award.

The Twelfth District Management Office won the 14th New Taipei City Occupational Safety Award (Group A) Excellent Unit Award.

2025 Ministry of Economic Affairs Quality Award:

- Northern District Engineering Office - Fuzhou Booster Station to Banxin Field Pipeline (Seven) Submersible Shield Project
- Central District Engineering Office - Wu River Hyporheic Water Phase II Project
- Southern District Engineering Office - Nanhua Second Line - Nanhua to Zuozhen Water Supply Pipeline (Second Section) - Water Supply Pipeline, Nanhua Second Line - Nanhua to Zuozhen Water Supply Pipeline (Second Section) - Connecting Pipeline (Consolidated Project)

5th Gold Medal Award

- Southern District Engineering Office - Nanhua Second Line - Nanhua to Zuozhen Water Supply Pipeline (Second Section) - Water Supply Pipeline, Nanhua Second Line - Nanhua to Zuozhen Water Supply Pipeline (Second Section) - Connecting Pipeline (Consolidated Project)



Smart TWC

# TWC No.1, Launching Smart Water Quality Management

TWC's service begins at the source and ends at the tap. For decades, we have been on the front lines safeguarding the nation's water sources and quality. Under the dual challenges of climate change and environmental pollution, ensuring the purity and sustainability of water resources—an asset belonging to all citizens—is our most fundamental sustainability objective. TWC partnered with external professional teams to develop the "TWC No.1" intelligent uncrewed surface vehicle for water quality sampling and monitoring. The birth of "TWC No.1" stems from profound empathy and the utmost regard for the safety of frontline workers, transitioning our strategy from "passive detection" to "proactive defence."

## Inspiration: A Commitment to Protecting the Source of Life

Behind every drop of clear tap water, especially in reservoirs and ponds often located in inaccessible or mountainous areas, lies the sweat and risk of countless water management workers. In the past, to ensure water quality in reservoirs and artificial lakes, sampling personnel had to brave the scorching sun or freezing winds, venturing into the water to conduct sampling, a process easily limited by weather conditions. Traditional sampling and testing consumed a great deal of manpower and resources, and also limited the depth and breadth of sampling; water samples needed to be sent to laboratories for testing after collection, which lacked time efficiency. However, in the era of smart technology, data is operational power, and comprehensive information is essential for more in-depth analysis and management.

The creation of "TWC No. 1" stems from a profound empathy, an emphasis on the safety of frontline workers, and a commitment to the water rights of Taiwan. Sustainability cannot be built on high-risk labor, nor can the water supply protection network have any blind spots in time or space. Only by introducing technology into water management can we ensure personal safety while building an unbreakable first line of defense for fragile water resources.

| Traditional approach | TWC No. 1 Opportunity |
|---|---|
| • Water sampling relies on manual labor in small boats, which is high-risk and time-consuming.<br>• Weather and distance can both affect water collection efficiency.<br>• Water collection depends on manual labor, increasing the chance of error.<br>• Water samples must be sent to a laboratory, resulting in long lead times for results. | • Avoids the risk of personnel entering the water<br>• Significantly improves efficiency with remote or automatic modes<br>• Automated water sampling with stratified sampling capability<br>• Can be equipped with a water quality monitor for 24/7 monitoring<br>• Paired with a mobile water quality monitoring and inspection vehicle, it can quickly have preliminary results and implement flexible and immediate measures. |

## Strategy: Cross-Sector Intelligence to Build Resilient Water Resources

TWC embraces smart technologies and AI, recognizing that we must embrace "cross-intelligence collaboration" and "smart empowerment." Investing in AI applications and achieving ESG (Environmental, Social, and Governance) goals, TWC has partnered with National Cheng Kung University and consulting firms to develop the Taiwan Water No. 1 smart vessel and its underlying technological applications. The core strategy lies in transforming "passive detection" into "proactive defense." By integrating autonomous driving, the Internet of Things (IoT), and cloud analytics technologies, along with stratified water sampling up to 18 meters deep and linked with a "mobile water quality testing vehicle," a 24/7, unmanned, and highly mobile smart water quality monitoring system has been created. This is not merely an upgrade of hardware, but an evolution of management thinking—"using scientific data as a foundation, replacing human labor with machines, and replacing post-event remediation with accurate prediction." This gives the system extremely high "environmental resilience," enabling it to self-diagnose and respond instantly to sudden pollution or water quality anomalies.

### Action

- External professional cooperation
- Turn passive into active

### Technology

- GPS、Autonomous driving and sampling
- Introduce IoT and cloud application
- improve data and intelligence analysis
- integrating with Inspection Vehicle

## Sail : Deployment and Validation of a New Water Quality Monitoring Approach

On December 8, 2025, the "TWC No.1 Intelligent Water Quality Sampling and Monitoring Vessel," approximately 1.2 meters long, officially set sail from Niaozui Lake, marking a new chapter in Taiwan's comprehensive water quality management. "Taiwan Waterway No. 1" possesses comprehensive technological capabilities. It can be remotely operated by personnel on shore and is equipped with an advanced autopilot system and intelligent obstacle avoidance technology. It can flexibly navigate diverse aquatic environments without human intervention, safely completing water quality sampling tasks. Therefore, it can be deployed to specific water areas to perform continuous, fixed water sampling tasks, or efficiently reach the required sampling points according to specific needs.

In addition, TWC No. 1 realizes the "land-water joint operation". Water samples are sent to the shore, where our personnel use a water-quality testing vehicle to conduct efficient, on-site preliminary testing. If needed, TWC No. 1 can be used to quickly collect additional samples, greatly enhancing the timeliness and reliability of water quality testing. This breaks the time and space limitations of traditional water quality management and builds a strong defense for the drinking water quality of the people.

## Looking Ahead: Creating Lasting Value for Future Generations

TWC No. 1 is delivering sustainable impacts in multiple perspectives in Taiwan.

**Environment**

By high frequency, continuous water quality monitoring enhances the control over water quality. This ensures the purity of water resources from the source, thereby reducing the use of chemical agents and energy consumption in downstream water treatment, truly implementing green water management.

**Social**

It protects water sampling personnel from the risks of working near water; externally, it provides accurate, stable, and resilient assurance for the quality of the water supply, fostering better social acceptance.

**Government**

It promotes cooperation among industry, government, and academia, and creates new models for water quality testing and management. Furthermore, it demonstrates its strong capabilities in applying digital and AI technologies to public infrastructure, leading the water industry towards digitalization and smart technology.

"TWC No. 1" is more than just a sampling and monitoring vessel; it represents our commitment to the safety of our water supply. On the path of pursuing sustainability, it safeguards water quality with rational data and technology, and protects personnel safety and the public's right to water use with compassionate empathy. Its commissioning enables rapid sampling, on-site testing, pollution identification, and response strategy development, significantly enhancing the mobility and resilience in responding to water quality emergencies. It reinforces our belief that, with the assistance of smart technology, we are better equipped to address issues such as environmental change and emerging pollutants, ensuring that the people of Taiwan can enjoy safe and reliable water.




Resilient TWC

# Public-Private Partnership for Optimizing the Distribution Network

Water is the cradle of civilization and the indispensable lifeblood of modern high-tech industries. Taiwan experiences alternating periods of severe century-level droughts and devastating torrential rains, making "retaining every drop of water" far more than an environmental slogan. It is a critical challenge tied directly to national survival and industrial continuity. In September 2025, TWC and global memory manufacturer Micron Technology initiated a significant cross-sector partnership, signing an agreement to co-build a resilient distribution network. This goes beyond a 47.1 million NTD donation contract; it is a profound action that integrates corporate social responsibility (ESG) with the mission of safeguarding water supply, working together to mend the "invisible wounds" hidden beneath Taiwan's distribution network.

## Every Drop Counts: Cross-Sector Partnerships for Mutual Benefit

Reducing the Water Leakage Rate has been a continuous objective for TWC over the years, representing an undeniable commitment to environmental sustainability and governance. TWC's previous 10-year leakage reduction plan successfully lowered the national average Water Leakage Rate from 19.55% to 11.99%. TWC's distribution network is expansive and complex, spanning from urban centers to remote areas, encompassing both newly developed zones and historic districts. Achieving "near-zero" leakage during transmission is challenging, yet we strive for continuous optimization. Addressing the indirect environmental and social impacts of water leakage not only conserves water resources but also mitigates the financial and energy waste associated with water loss.

As we continue efforts to reduce leakage and replace pipelines, we actively seek to establish diverse partnerships to integrate and accelerate our sustainability initiatives. Under current domestic and international sustainable development

trends, public-private partnerships provide an effective avenue for demonstrating corporate social responsibility. This approach allows us to leverage more partners and resources to accelerate progress toward our long-term leakage reduction goals.

Micron has demonstrated the vision and leadership of a multinational corporation through its long-term commitment to water restoration and environmental sustainability, proactively supporting TWC's leakage reduction plan. Historically, industrial water conservation strategies have primarily focused "inside the fence," prioritizing internal process water recycling and wastewater treatment plant construction. However, Micron deeply understands that the semiconductor industry and its local communities share a common destiny. Regardless of how much water is saved within the facility, overall environmental resilience remains vulnerable if the community's public water supply network is compromised. Consequently, Micron's strategy extends its impact "beyond the fence" by directly investing in public infrastructure. TWC welcomes having more "teammates" join us in enhancing network resilience and exerting a positive impact on environmental sustainability.




## Investing Resources to Preserve Resources

On September 12, 2025, this initiative to safeguard water resources was officially launched with a joint signing by TWC Chairman Chia-Jung Lee and Micron Taiwan Vice President of Operations, Lian-Bin Zhong. This collaborative investment marks a landmark in public-private partnerships for water resource sustainability. By the end of 2026, 5.5 kilometers of aging plastic pipelines in the target area will be completely replaced with highly durable, earthquake-resistant Ductile Iron Pipes (DIP). Within this specific region, this upgrade is estimated to reduce water leakage by 6,186 metric tons per day, saving approximately 2.2 million NTD cost of water each month.




The partnership between TWC and Micron establishes a new paradigm for corporate collaboration and sustainability indicators in Taiwan's public-private partnerships. It demonstrates that investing in public infrastructure is not solely the responsibility of governments and state-owned enterprises; it serves as the optimal platform for companies to showcase ESG leadership, driving an anticipated synergistic sustainability impact greater than the sum of its parts.

TWC's collaboration with the corporate sector is grounded in data-driven insights and propelled by a shared commitment to water conservation, successfully translating corporate resources into enhanced social and environmental resilience. Building upon this initiative, TWC will continue to explore partnership opportunities with other local governments and enterprises to establish further collaborative models. Regarding distribution network resilience, our goal is not merely to operate as the "Taiwan Water Team," but to forge a multi-stakeholder "Team Taiwan Water.





# Explanation of Major Social Concern Events

As a state-owned enterprise responsible for the nation's primary water supply services and infrastructure, we are deeply aware of the social responsibilities and expectations placed upon us. Within our sustainability report, we do not merely detail our annual ESG performance and management initiatives; we also utilize this platform as a mirror for introspection and a window for communication with our Stakeholders. By reviewing the major events that garnered significant social concern in 2025, we faithfully dedicate a specific section to explain the challenges encountered, our internal reviews, and our strategies for future refinement. We hope this fosters understanding and mutual progress among all Stakeholders.

## Response to the Keelung Water Quality Incident

"The Keelung Water Contamination Incident of November 27" in 2025 not only disrupted the daily water usage of approximately 150,000 households but also served as a severe test of TWC's emergency response capabilities and prompted profound internal review. TWC has humbly examined the entirety of this incident and extends its deepest apologies to every affected customer. Grounded in rational analysis, we aim to clearly explain the sequence of events and TWC's subsequent responses to drive future progress.

Early in the morning on November 27, 2025, TWC's employee detected an abnormal oil sheen on the raw water surface during a routine inspection at the Badu Pumping Station on the Keelung River. We immediately and decisively halted the intake of raw water from the Keelung River at 6:33 AM and rapidly activated backup transmission pipelines and mechanisms from the Xinshan and Xishi reservoirs. Despite these swift actions, we received reports from users in Keelung City and parts of New Taipei City regarding unusual odors in their tap water. Facing this sudden crisis and a large volume of customer complaints, the TWC team immediately launched large-scale pipeline flushing, circulation washing, and deep cleaning of water treatment plant equipment. Working around the clock, we sought to eliminate residual odors in the distribution network in the shortest possible time, while concurrently collaborating with the Environmental Protection Bureau to deploy containment booms at the water source.

Resolving the root cause is the only way to prevent future recurrences. Upon the incident's occurrence, TWC immediately notified the Keelung City Environmental Protection Bureau and reported to the police, triggering a joint investigation platform comprising prosecutors, police, and environmental agencies. Following an intensive upstream trace investigation conducted alongside law enforcement and local government, it was confirmed that the incident resulted from a malicious environmental crime, where illegal operators illicitly discharged waste oil upstream of the water intake. Witnessing the pollution of our water sources, we share the public's deep resentment and regret. We are fully cooperating with judicial authorities to hold the perpetrators accountable and seek legal compensation.




After half a month of intensive distribution network flushing and repeated Drinking Water Quality testing, we ensured that all testing parameters fully complied with the nation's stringent drinking water standards. Following verification of safety by independent third-party organizations and competent authorities, we gradually resumed water intake operations from the Keelung River on December 11. Embracing our corporate social responsibility, TWC proactively proposed and received approval from the Ministry of Economic Affairs to implement compensation measures for affected users, including an automatic half-month water bill reduction and compensation for outsourced water tank cleaning. Furthermore, we established an Immediate Response Service Center to provide drainage assistance, water quality consultations, and compensation application processing, aiming to mitigate the inconvenience and adverse impacts experienced by our users during this period.

This incident exposed the limitations of manual inspections in the face of sudden, malicious pollution. Learning from this painful experience, TWC has transformed this crisis into an opportunity for comprehensive defense upgrades, significantly fortifying the early warning systems at the Badu Pumping Station and Xinshan water treatment plant.

◆ **Deployment of Highly Sensitive Oil Monitoring Instruments:** We adjusted the location of our surface oil film monitoring to provide 24-hour detection of surface oil slicks using fluorescence reflection technology. Additionally, we installed highly sensitive in-water oil monitors to precisely track Total Volatile Organic Compounds (VOCs) concentrations, significantly enhancing our real-time identification capabilities.

◆ **Continuous Thermal Odor Detection Equipment:** To address less volatile, hidden substances, we introduced thermal odor detection equipment capable of automatically heating raw water to 60° C. This upgrade combines instrumental assistance with acute human olfactory potential, drastically increasing the interception rate for trace abnormal odors.

◆ **Strengthened Joint Patrols:** We have substantially increased the frequency of around-the-clock manual patrols along the river sections upstream of the intake. By integrating technology and human resources, we are replacing "passive response" with "proactive defense."

The resolution of this incident is not an end, but the beginning of a higher standard in water management. TWC will continue to safeguard every drop of water for the public with the most rigorous scientific attitude and profound empathy, ensuring that such regrettable incidents do not happen again.

# Reflection on the Kaohsiung Dashu Solar PV Incident

In the face of climate change, developing Renewable Energy is a critical carbon reduction strategy. Driven by international trends and domestic policies, TWC continues to lease out potential land through bidding processes to allow Solar PV developers to invest. However, regarding the "Kaohsiung Dashu District Heshan Village Solar PV Incident," which drew intense social concern in 2025, TWC, as the landowner and bidding authority, experienced a deeply painful lesson. This incident highlighted shortcomings in the governance mechanisms applicable to leased land developments and reinforced the need for stronger environmental safeguards and stakeholder engagement practices.

The 51-hectare hillside in Heshan Village, Dashu District, Kaohsiung, was originally idle land released by TWC to align with the national green energy policy. However, between 2023 and 2025, the winning contractor, while developing the Heshan Solar PV Facility, employed highly invasive site designs—flattening hilltops and filling depressions—in an attempt to maximize the installation area for solar panels.

As the once-lush forests were largely leveled, transforming into expansive, bare yellow earth slopes, the anxiety of local residents surged. The potential threat of landslides and debris flow cannot be underestimated. TWC deeply empathizes with this fear for personal safety and local water sources, recognizing that this was absolutely not the original intention of promoting Renewable Energy.

Following the incident, TWC immediately launched a serious internal review. We must candidly acknowledge that while the root cause of this environmental disaster was the developer's failure to adhere to soil and water conservation regulations and their illegal expansion of the development area, TWC's land bidding mechanism indeed harbored latent risks that must be addressed. At the contractual source, we failed to establish sufficiently stringent environmental carrying capacity assessments and baseline geomorphological protections. This is an undeniable oversight that TWC, as the landowner, must review.

Facing this severely uncontrollable development, TWC reached a strong consensus with the Kaohsiung City Government, the Energy Administration of the Ministry of Economic Affairs, and investigative agencies to prioritize "protecting the safety of local residents" above all commercial interests and green energy metrics. In mid-2025, after confirming the developer's severe regulatory violations that led to soil and water loss, the competent authorities officially revoked the site's Solar PV permit and the Phase II Soil and Water Conservation Plan. The Kaohsiung City Government also imposed heavy fines and ordered a cessation of work. As the lessor, TWC cooperated with the authorities' demands, strongly urging the contractor to complete bare land coverage and soil and water conservation restoration within the stipulated timeframe, ensuring the risk of debris impact is minimized and returning a livable natural environment to Local Communities.

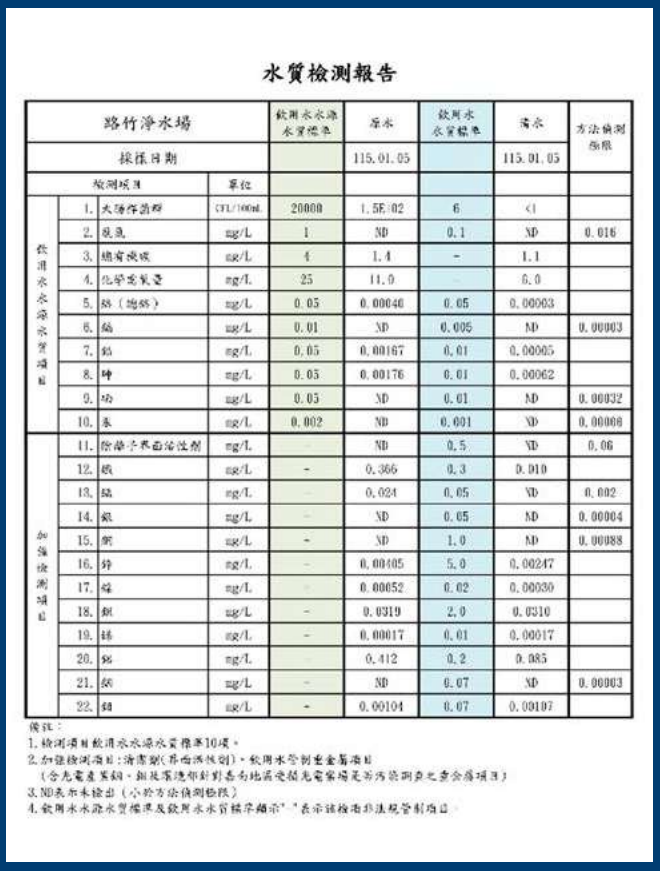
We have also taken responsibility for the public's greatest concern—Drinking Water Quality—by rigorously enforcing water quality monitoring. We ensure that while balancing different environmental objectives, we never forget our mission of "Sufficient Supply, Superior Quality." We have intensified water quality monitoring at all reservoirs with installed solar panels (as verified by the enhanced testing data from the Wushantou and Luzhu water treatment plants) to guarantee no adverse impact on water supply quality.



水質檢測報告

| 烏山頭淨水場 | | | 飲用水水源水質標準 | 原水 | 飲用水水質標準 | 清水 | 方法偵測極限 |
|---|---|---|---|---|---|---|---|
| 採樣日期 | | | | 115.1.5 | | 115.1.5 | |
| 檢測項目 | | 單位 | | | | | |
| 飲用水水源水質項目 | 1. 大腸桿菌群 | CFU/100mL | 20000 | 15 | 6 | <1 | |
| | 2. 氨氮 | mg/L | 1 | 0.05 | 0.1 | 0.03 | |
| | 3. 總有機碳 | mg/L | 4 | 0.9 | - | 0.9 | |
| | 4. 化學需氧量 | mg/L | 25 | 6.4 | - | 4.4 | |
| | 5. 鉛（總鉛） | mg/L | 0.05 | 0.00043 | 0.05 | ND | 0.00003 |
| | 6. 鎘 | mg/L | 0.01 | ND | 0.005 | ND | 0.00003 |
| | 7. 鉻 | mg/L | 0.05 | 0.00020 | 0.01 | 0.00007 | |
| | 8. 砷 | mg/L | 0.05 | 0.00149 | 0.01 | 0.00023 | |
| | 9. 汞 | mg/L | 0.05 | ND | 0.01 | ND | 0.00032 |
| | 10. 苯 | mg/L | 0.002 | ND | 0.001 | ND | 0.00006 |
| 加強檢測項目 | 11. 陰離子界面活性劑 | mg/L | - | 0.05 | 0.5 | ND | 0.02 |
| | 12. 銅 | mg/L | - | 0.299 | 0.3 | 0.00596 | |
| | 13. 鎳 | mg/L | - | 0.0114 | 0.05 | 0.00047 | |
| | 14. 銀 | mg/L | - | ND | 0.05 | ND | 0.00004 |
| | 15. 銻 | mg/L | - | 0.00363 | 1.0 | 0.00475 | |
| | 16. 鋅 | mg/L | - | 0.00878 | 5.0 | 0.00868 | |
| | 17. 硒 | mg/L | - | 0.00045 | 0.02 | 0.00046 | |
| | 18. 銀 | mg/L | - | 0.0144 | 2.0 | 0.0119 | |
| | 19. 鈹 | mg/L | - | 0.00011 | 0.01 | 0.00010 | |
| | 20. 鋇 | mg/L | - | 0.537 | 0.2 | 0.0119 | |
| | 21. 鈷 | mg/L | - | ND | 0.07 | ND | 0.00003 |
| | 22. 鈦 | mg/L | - | 0.00054 | 0.07 | 0.00058 | |

備註：
1. 檢測項目飲用水水源水質標準10項。
2. 加強檢測項目：清潔劑(界面活性劑)、飲用水管制重金屬項目
（含光電產業鋼、鋁及環境部針對嘉南地區受偏光電業增是否污染調查之重金屬項目）
3. ND表示未檢出（小於方法偵測極限）
4. 飲用水水源水質標準及飲用水水質標準欄示"-"表示該檢項目法規管制項目。



水質檢測報告

| 路竹淨水場 | | | 飲用水水源水質標準 | 原水 | 飲用水水質標準 | 清水 | 方法偵測極限 |
|---|---|---|---|---|---|---|---|
| 採樣日期 | | | | 115.01.05 | | 115.01.05 | |
| 檢測項目 | | 單位 | | | | | |
| 飲用水水源水質項目 | 1. 大腸桿菌群 | CFU/100mL | 20000 | 1.5E+02 | 6 | <1 | |
| | 2. 氨氮 | mg/L | 1 | ND | 0.1 | ND | 0.016 |
| | 3. 總有機碳 | mg/L | 4 | 1.4 | - | 1.1 | |
| | 4. 化學需氧量 | mg/L | 25 | 11.0 | - | 6.0 | |
| | 5. 鉛（總鉛） | mg/L | 0.05 | 0.00040 | 0.05 | 0.00003 | |
| | 6. 鎘 | mg/L | 0.01 | ND | 0.005 | ND | 0.00003 |
| | 7. 鉻 | mg/L | 0.05 | 0.00167 | 0.01 | 0.00005 | |
| | 8. 砷 | mg/L | 0.05 | 0.00176 | 0.01 | 0.00062 | |
| | 9. 汞 | mg/L | 0.05 | ND | 0.01 | ND | 0.00032 |
| | 10. 苯 | mg/L | 0.002 | ND | 0.001 | ND | 0.00006 |
| 加強檢測項目 | 11. 陰離子界面活性劑 | mg/L | - | ND | 0.5 | ND | 0.06 |
| | 12. 銅 | mg/L | - | 0.366 | 0.3 | 0.010 | |
| | 13. 鎳 | mg/L | - | 0.024 | 0.05 | ND | 0.002 |
| | 14. 銀 | mg/L | - | ND | 0.05 | ND | 0.00004 |
| | 15. 銻 | mg/L | - | ND | 1.0 | ND | 0.00088 |
| | 16. 鋅 | mg/L | - | 0.00405 | 5.0 | 0.00247 | |
| | 17. 硒 | mg/L | - | 0.00052 | 0.02 | 0.00030 | |
| | 18. 銀 | mg/L | - | 0.0319 | 2.0 | 0.0310 | |
| | 19. 鈹 | mg/L | - | 0.00017 | 0.01 | 0.00017 | |
| | 20. 鋇 | mg/L | - | 0.412 | 0.2 | 0.085 | |
| | 21. 鈷 | mg/L | - | ND | 0.07 | ND | 0.00003 |
| | 22. 鈦 | mg/L | - | 0.00104 | 0.07 | 0.00107 | |

備註：
1. 檢測項目飲用水水源水質標準10項。
2. 加強檢測項目：清潔劑(界面活性劑)、飲用水管制重金屬項目
（含光電產業鋼、鋁及環境部針對嘉南地區受偏光電業增是否污染調查之重金屬項目）
3. ND表示未檢出（小於方法偵測極限）
4. 飲用水水源水質標準及飲用水水質標準欄示"-"表示該檢項目法規管制項目。

The development of renewable energy is intended to create a more sustainable future. If it compromises land and water conservation and the safety of local residents, this "green intention" loses its core value. TWC will no longer act merely as a land lessor but as a strict environmental gatekeeper. Future activations of idle land or green energy bidding will incorporate more rigorous environmental and topographical sensitivity assessments, prohibiting over development on overly steep slopes or land with ecological conservation value. Secondly, lease contracts will be substantially expanded to include mandatory clauses on soil and water conservation and environmental protection. Should a contractor be found to exceed approved boundaries or to destroy the landscape, TWC reserves the right to immediately terminate the contract and demand restoration. Finally, recognizing the importance of Stakeholders' opinions, TWC's future land revitalization plans will mandate in-depth communication with Local Communities during the early planning stages, ensuring residents' right to know and incorporating local voices as a crucial factor in development approval.

We will remember the painful lesson of the Kaohsiung Dashu case. Even though TWC was not the perpetrator in this instance, it exposed our negligence regarding the natural environment and contract management. Moving forward, we will approach every inch of state-owned land entrusted to us with greater humility and caution. We will not deviate from the path of the Net Zero Transition, but we will build trustworthy partnerships with a more responsible attitude, striving for the true co-prosperity among green energy, ecology, and society

# Material Topic Analysis

TWC identifies Material Topics in accordance with the GRI Standards 2021, SASB standards, and recommendations from the Taiwan Stock Exchange. This analysis aims to identify key Environmental, Social, and Governance (ESG) topics, specifically focusing on those with the most significant impact on TWC's sustainable operations and the highest priority for Stakeholders. TWC actively engages with Stakeholders to gather feedback and deeply understand their concerns. We commit to an annual Material Topics identification process to ensure our sustainability report reflects critical operational factors and transparently discloses issues of high importance to our Stakeholders.

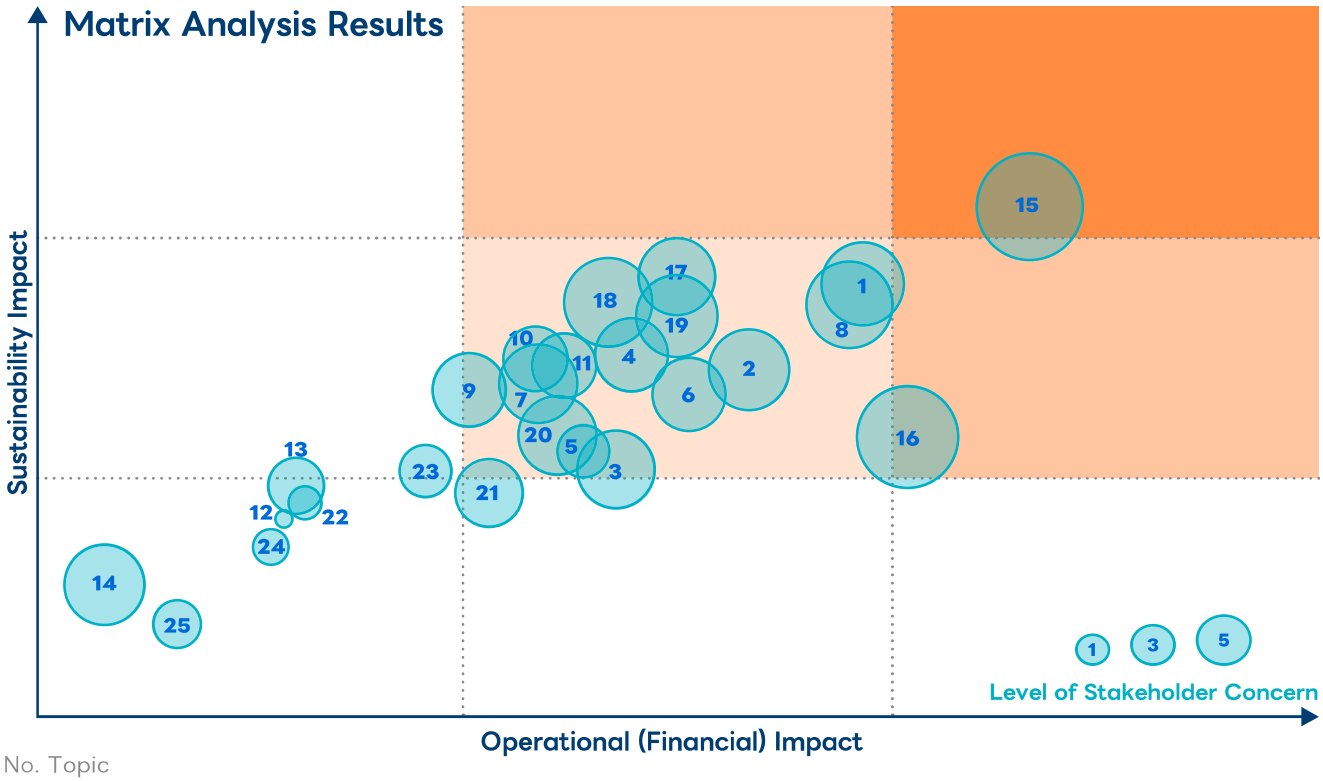
### ▼ Material Topic Identification and Impact Analysis Procedure

| Step 1<br>Identification | Step 2<br>Evaluation | Step 3<br>Confirmation |
|---|---|---|
| We identified topics of concern across 9 major Stakeholder groups. By analyzing historical Material Topics, domestic and international events, SASB disclosure requirements for the Water Utilities & Services sector, and international industry benchmarks, we compiled a preliminary list of 25 key topics. | For 25 topics, internal and external stakeholders were invited to rate the impact of each theme on operations (financially), its influence on sustainability, and their level of concern.<br>Based on the internal and external questionnaires and external expert recommendations, each theme was evaluated and subjected to matrix analysis. | Following the principle of dual materiality, an assessment was conducted from two perspectives: financial materiality and sustainability impact. The form and scope of various impacts were further identified. Considering the SASB requirements for water utility and industry disclosures, the projects were prioritized. After communication with stakeholders and confirmation with management, 16 major themes were ultimately identified.<br>TWC developed corresponding strategies for each topic and collected feedback from stakeholders to improve our management. |

The 2025 stakeholder survey collected 79 valid responses from December 2025 to January 2026. To ensure inclusivity, respondents included Employees (29.1%), General Water Customers (26.6%), Suppliers and Business Partners (26.6%), and other Stakeholders (excluding Media).

The matrix evaluates 25 topics plotted by operational impact (X-axis) and sustainability impact (Y-axis), with bubble size representing the level of stakeholder concern. 16 Material Topics were ultimately selected based on preliminary criteria: sustainability impact (absolute value > 3), operational impact (average > 4), or high stakeholder concern (> 4). Final topics were recommended by experts and confirmed by the report's editorial team and the

## ▼ TWC 2025 Material Topic Matrix




No. Topic

01. Water Supply Management
02. End-Use Efficiency
03. Information and Cybersecurity
04. Technological and Innovative Development
05. Corporate Governance
06. Operational Performance and Risk Management
07. Anti-corruption
08. Distribution Network Efficiency & Network Resiliency & Impacts of Climate Change
09. Energy Management & Net Zero Emissions
10. Effluent Quality Management
11. Watershed Conservation and Biodiversity
12. Land Use Management
13. Circular Economy and Waste Management
14. Air Quality
15. Drinking Water Quality
16. Water Affordability and Accessibility
17. Customer Relationship
18. Customer Privacy
19. Occupational Health and Safety
20. Labor/Management Relations
21. Diversity in the Workplace and Employee Development
22. Regional Development
23. Supply Chain Management
24. Local Communities
25. Human Rights and Anti-Discrimination

## ▼ TWC 2025 Material Topic Identification Result

| Dimension | Material Topic | 2025 Status |
|---|---|---|
| Environment | Distribution Network Management and Climate Change Resiliency | Maintained |
| | Energy Management & Net Zero Emissions | Maintained |
| | Effluent Quality Management | Maintained |
| | Watershed Conservation and Biodiversity | Added |
| Social | Drinking Water Quality | Maintained |
| | Water Affordability and Accessibility | Maintained |
| | End-Use Efficiency | Maintained |
| Governance | Water Supply Management | Maintained |
| | Occupational Health and Safety | Maintained |
| | Information and Cybersecurity | Maintained |
| | Customer Relationship | Added |
| | Customer Privacy | Maintained |
| | Technological and Innovative Development | Maintained |
| | Corporate Governance | Maintained |
| | Operational Performance and Risk Management | Maintained |
| | Anti-corruption | Maintained |

| Dimension | Material Topic | 2025 Status |
|---|---|---|
| Non-Material | Drinking Water Quality | Maintained |
| | Water Affordability & Access | Maintained |
| | End-Use Efficiency | Maintained |

By comprehensively assessing the value and impact of various sustainability themes on the company and ranking them according to the SASB requirements, TWC actively communicated with stakeholders and successfully identified 16 major sustainability themes.

## ▼ TWC 16 Material Topics and Impact Scopes Identified from 2025

| Dimension | Material Topics | Materiality | Impact pathway | | | Impact scope |
|---|---|---|---|---|---|---|
| | | | +/- | Physical | Potential | |
| Environment | Environment Distribution Network Management and Climate Change Resiliency (GRI 201-2、203-1) | ◎ $ | + | Maintain water supply and ensure water use for people's livelihood and industry. | Avoid damage and increased maintenance costs. | ● TWC<br>● Customer<br>● Public<br>▲ Commercial partner |
| | | | - | Heavy rains can cause raise water turbidity or damage to the system, leading to water supply disruptions. | Insufficient recognition of climate change scenarios renders the system unresilient to cope with future impacts. | |
| | Energy Management & Net Zero Emissions (GRI 302、305 ) | ◎ $ | + | Improving efficiency and introducing renewable energy can reduce energy use and carbon footprint. | Aligns with the net-zero trend and enhances long-term resilience, mitigating the adverse effects of climate change on development. | ● TWC<br>● Public<br>▲ Commercial partner |
| | | | - | Energy and carbon reduction related compliance, carbon fees, or penalty deferrals. | exacerbate the adverse effects of climate change. | |
| | Effluent Quality Management (GRI 303) | ◎ $ | + | Strict regulations and continuous improvement can maintain environmental quality. | Building a healthy aquatic environment and social trust. | ● TWC<br>● Public |
| | | | - | Lead to water pollution, ecological damage, and regulatory risks. | Inability to respond to increasingly stringent regulations may lead to delayed penalties. | |
| | Watershed Conservation and Biodiversity (GRI 101) | ◎ $ | + | Conservation and maintenance of biodiversity and water quality safety. | Improve long-term water supply security and ecological health. | ● TWC<br>● Customer<br>● Public |
| | | | - | Improper development or management may damage the ecosystem and affect water quality and water supply security. | Lead to long-term distrust in society and large-scale ecological damage. | |

| Dimension | Material Topics | Materiality | Impact pathway | | | Impact scope |
|---|---|---|---|---|---|---|
| | | | +/- | Physical | Potential | |
| Social | Drinking Water Quality (GRI 416) | ◎ $ | + | Safe drinking water that meets standards can safeguard people's well-being. | Ensuring social trust and meeting the needs of industrial development. | ● TWC<br>● Customer<br>● Public |
| | | | − | Inadequate quality control may lead to health risks and social distrust. | Increase testing and management costs, and challenges in social communication. | |
| | Water Affordability and Accessibility (GRI 203) | ◎ $ | + | Balancing operating costs with social equity, ensuring societal needs are met. | Promote long-term social security and industrial stability. | ● TWC<br>● Customer<br>● Public<br>▲ Commercial partner |
| | | | − | Inappropriate pricing can affect operational capabilities and raise fairness disputes. | Affect construction and services, and makes it difficult to improve accessibility. | |
| | End-Use Efficiency (GRI 203-2) | ◎ $ | + | May reduce resource consumption and conserve resources. | Reduce water disputes and waste, and promote cooperation. | ● TWC<br>● Customer |
| | | | − | Ineffective actions may lead to water waste and limited performance. | Excessive waste affects water supply capacity and creates a negative public perception. | |
| Governance | Water Supply Management (GRI 203-1) | ◎ $ | + | Improved management helps to enhance the stability of water sources. | Reduce environmental and social risks in the long term. | ● TWC<br>● Public<br>▲ Commercial partner |
| | | | − | Poor management may lead to unstable water supply and increased water resources pressure. | Long-term water environment impact and decline in social trust. | |
| | Occupational Health and Safety (GRI 403) | ◎ $ | + | Improving safety systems and protection measures can reduce accidents. | Improve employee well-being and productivity. | ● TWC<br>▲ Commercial partner |
| | | | − | Inadequate management can lead to occupational injuries, damage to physical and mental health, and negative social attention. | This leads to social distrust and a decline in employee identification. | |
| | Information and Cybersecurity | $ | + | Ensure data security. | Improve overall trust and operational efficiency. | ● TWC<br>● Customer<br>● Public<br>▲ Commercial partner |
| | | | − | Inadequate control makes the system vulnerable to attacks. | Inadequate control lead to the leakage of customer data and service interruptions. | |

| Dimension | Material Topics | Materiality | Impact pathway | | | Impact scope |
|---|---|---|---|---|---|---|
| | | | +/- | Physical | Potential | |
| Governance | Customer Relationship (GRI 416) | ◎ $ | + | Diverse and transparent communication and instant service can improve satisfaction. | Enhance social support and trust to promote sound operations. | ● TWC<br>● Customer<br>● Public |
| | | | − | Insufficient communication and untimely response led to complaints and public opinion. | Lack of trust makes communication and cooperation more difficult. | |
| | Customer Privacy (GRI 418) | ◎ $ | + | Good management and regulation can protect privacy and maintain social trust. | Promoting social trust and support. | ● TWC<br>● Customer<br>● Public |
| | | | − | Inadequate personal data protection may lead to data leaks and legal risks. | Long-term mismanagement has led to a loss of trust. | |
| | Technological and Innovative Development (GRI 203-2) | ◎ $ | + | Improve water supply efficiency, reduce environmental impact and enhance resilience. | Build an innovative culture and significantly enhance operational capabilities. | ● TWC<br>● Customer<br>▲ Commercial partner |
| | | | − | Improper technology implementation may increase energy use or financial inefficiency. | Improper management leads to long-term cost burdens and data risks. | |
| | Corporate Governance (GRI 205) | $ | + | Promote transparency and accountability, and balance stakeholders' interests. | Establish sound development and governance, and strengthen social recognition. | ● TWC<br>● Public<br>▲ Commercial partner |
| | | | − | Poor management leads to corruption, lack of transparency, and biased decision-making. | Long-term mismanagement damages social trust and corporate value. | |
| | Operational Performance and Risk Management (GRI 201-1、201-4) | ◎ $ | + | Effective risk management helps reduce the incidence of incidents. | Maintaining and enhancing operational resilience. | ● TWC<br>● Customer<br>▲ Commercial partner |
| | | | − | Insufficient risk identification and response may lead to water supply disruptions and financial fluctuations, affecting operational stability. | Insufficient governance and risk response capabilities may lead to operational difficulties and negative public perception. | |
| | Anti-corruption (GRI 205) | ◎ $ | + | Implement anti-corruption and integrity culture, and maintain clean governance. | Improve governance quality and public trust. | ● TWC<br>● Public<br>▲ Commercial partner |
| | | | − | Corruption or improper bidding will harm the public interest. | Result in financial losses, legal troubles, and a loss of social trust. | |

Note：

◎ Sustainable Material　$ Financial Material　+ Positive impact　− Negative impact

● Direct impact　▲ Indirect impact

To create a more comprehensive and systematic structure for 2025, several related issues were consolidated into "Water Supply Management" to better reflect TWC's core operations. Compared to 2024, "Watershed Conservation and Biodiversity" and "Customer Relationship" were added, while "Circular Economy and Waste Management" and "Labor/Management Relations" were removed to align with shifting Stakeholder priorities. Although "Land Use Management" scored lower overall, it is explicitly addressed in this report to strengthen Stakeholder communication following recent land management events.

Survey results indicate that "Drinking Water Quality," "Water Affordability & Access," "Water Supply Management," and "Distribution Network Efficiency & Network Resiliency & Impacts of Climate Change" are universally recognized as top priorities. Conversely, topics like "Air Quality," "Human Rights and Anti-Discrimination," and "Local Communities" yielded lower sustainability impact scores. Notably, Employees emphasized the operational aspects of the water supply system, whereas external Stakeholders were more attuned to ESG externalities, paying closer attention to "Water Affordability & Access," "Local Communities," and "Effluent Quality Management."

These adjustments ensure that the 2025 Materiality Matrix accurately reflects critical issues in the current operational landscape, providing clear management direction for TWC's sustainable development strategies.

# Stakeholder Engagement

We are dedicated to achieving long-term sustainable development that benefits our users, regulatory authorities, and broader Stakeholders. Understanding diverse perspectives is vital to our success. In accordance with the AA1000 Stakeholder Engagement Standards, TWC has identified 9 key stakeholder groups based on our operational interactions and impacts.

## Stakeholder Engagement Strategy and Objectives

| | |
|---|---|
| **Identify Key Stakeholders** | Formulate tailored engagement strategies for different stakeholder groups。 |
| **Transparency** | Build trust with diverse stakeholders based on the principle of open and transparent communication. |
| **Customized Communication Mechanisms** | Design appropriate communication channels and methods for various stakeholder groups. |
| **Systematic Recording and Tracking** | Document all communications comprehensively, establish feedback mechanisms, and track the fulfilment of our commitments to stakeholders. |

TWC makes effective use of multiple communication channels to engage with stakeholders,, actively listening to and understanding their needs and expectations. These insights serve as a crucial foundation for formulating our sustainability strategies. The table below outlines the concerns, engagement strategies, and communication frequencies for our nine key stakeholder groups.

| Stakeholder | Relationship with TWC | Material Topics of Concern | Response and Engagement Strategy | Communication Channels and Frequency |
|---|---|---|---|---|
| **Shareholders** | Provide long-term support and monitor TWC's operational strategies, performance, and sustainable management. | • Water Supply Management<br>• Distribution Network Management and Climate Change Resiliency<br>• Information and Cybersecurity<br>• Operational Performance and Risk Management<br>• Corporate Governance<br>• Technological and Innovative Development | TWC's primary shareholders are central and local government entities. We maintain regular communication and incorporate shareholder feedback into our strategic planning. Through transparent and efficient governance, we provide sufficient, high-quality water resources for public and industrial needs. | • Board meetings (12 sessions in 2025)<br>• Annual General Meeting (Annually)<br>• Website sections ("Corporate Governance," "Sustainable Development," and "Directors/Supervisors Portal") for real-time information access. |
| **Government Agencies** | As a state-owned enterprise, regulatory compliance and sustainability performance are key drivers of TWC's growth. | • Water Supply Management<br>• Distribution Network Management and Climate Change Resiliency<br>• Corporate Governance<br>• Energy Management & Net Zero Emissions<br>• Effluent Quality Management<br>• Watershed Conservation and Biodiversity | Government agencies act as our supervisory authorities. We collaborate closely on national water resource management and infrastructure, actively aligning with national development and socioeconomic needs according to regulatory directives. | • Operational review meetings (18 sessions in 2025)<br>• Leakage prevention meetings (11 sessions in 2025)<br>• MOEA Occupational Safety and Health risk reduction meetings (Annually)<br>• Cross-ministerial workplace risk reduction meetings (Annually)<br>• Official correspondence |
| **Elected Representatives** | Representatives voice public concerns from various regions, prompting TWC's continuous improvement. | • Water Supply Management<br>• Drinking Water Quality<br>• Distribution Network Management and Climate Change Resiliency Water Affordability & Access<br>• Operational Performance and Risk Management | We maintain fluid communication with central and local representatives via dedicated liaisons. We leverage their feedback to enhance operational performance and fulfill our corporate social responsibility. | • Coordination and discussion meetings (190 sessions in 2025)<br>• In-person briefings and official replies<br>• Website contact inquiries |
| **General Water Customers** | Providing the public with healthy, clean, and stable water is TWC's core mission. | • Water Supply Management<br>• Distribution Network Management and Climate Change Resiliency Drinking Water Quality<br>• Customer Relationship<br>• Customer Privacy<br>• Water Affordability and Accessibility | We disseminate information (outages, subsidies, billing) via service centers, our website, mobile app, and media. We prioritize customer satisfaction by actively addressing feedback and continuously refining services across all branches. | • Customer satisfaction surveys (At least annually)<br>• Bill inserts (Bi-monthly)<br>• Water resource value awareness survey (Once in 2025)<br>• Real-time website updates and App notifications (76 alerts)<br>• 24/7 customer service hotline (829,677 calls in 2025, 98.83% satisfaction)<br>• Online outage inquiry system |
| **Industrial and Commercial Water Customers** | Stable water supply ensures reliable industrial operations and promotes the circular economy. | • Water Supply Management<br>• Distribution Network Management and Climate Change Resiliency<br>• Drinking Water Quality<br>• Customer Relationship<br>• Customer Privacy<br>• Water Affordability and Accessibility | We strive to deliver stable water supply to key industrial users. We ensure real-time, effective communication to fulfill specific industrial demands alongside general customer service. | |

| Stakeholder | Relationship with TWC | Material Topics of Concern | Response and Engagement Strategy | Communication Channels and Frequency |
|---|---|---|---|---|
| **Employees** | Employees are the foundation of our operations. TWC is responsible for providing safe environments, fair compensation, and development opportunities. | • Water Supply Management<br>• Distribution Network Management and Climate Change Resiliency<br>• Operational Performance and Risk Management<br>• Corporate Governance<br>• Technological and Innovative Development<br>• Labor/Management Relations<br>• Occupational Health and Safety | We prioritize workplace safety and comfort, providing adequate training and career advancement opportunities. We foster transparent internal communication to ensure employee voices are heard, achieving mutual prosperity. | • Three labor representatives on the Board of Directors<br>• Labor-management meetings (Quarterly)<br>• Employee proposal reviews (Bi-annually)<br>• Occupational Safety and Health Committee meetings (68 sessions in 2025)<br>• Employee satisfaction surveys (At least annually)<br>• Chairman and President mailboxes<br>• Union communication (1 general assembly and 4 board meetings in 2025) |
| **Suppliers and Business Partners** | Stable, transparent, and reliable procurement processes foster long-term partnerships and stable operations. | • Distribution Network Management and Climate Change Resiliency<br>• Water Supply Management<br>• Customer Privacy<br>• Operational Performance and Risk Management<br>• Corporate Governance<br>• Technological and Innovative Development | We value partnerships and strive for integrity and mutual benefit. We collaborate to maintain infrastructure, advance technology, and ensure supply chain compliance. | • Procurement contracts (2,872 awarded in 2025)<br>• Integrity training/Supplier meetings (8 sessions in 2025)<br>• Government e-Procurement system announcements<br>• Phone, email, and official correspondence |
| **Community Residents** | Deepening community relations and social engagement ensures our sustainability values reach every corner. | • Customer Privacy<br>• End-Use Efficiency<br>• Effluent Quality Management | We maintain friendly, long-term interactions with communities near water facilities. We promote local development while fulfilling our corporate social responsibility and minimizing environmental impacts. | • Community outreach and sponsorship activities (160 events)<br>• Routine branch interactions<br>• Social media updates (125 Facebook posts, 5 YouTube videos in 2025) |
| **Media** | The media provides social oversight. TWC proactively maintains good relations to gauge public sentiment and communicate effectively. | • Distribution Network Management and Climate Change Resiliency<br>• Water Supply Management<br>• Customer Privacy<br>• Water Affordability & Access<br>• Corporate Governance<br>• Operational Performance and Risk Management<br>• Anti-corruption | We actively communicate public affairs, operational updates, and performance metrics to address social oversight and shape transparent public discourse. | • Press conferences (1 session)<br>• Press releases (107 corporate, 63 regional)<br>• Website announcements |

# 01

# WHO ARE WE


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# 1 Who Are We

## 1.1 Overview of TWC

TWC has long undertaken the public mission of ensuring a stable water supply and plays a critical role within Taiwan’ s overall water resources governance framework. It provides potable water services across Taiwan Island (excluding the Taipei Water Department service area), as well as offshore islands including Penghu, Green Island, and Xiaoliuqiu.

In recent years, in response to environmental changes and increasingly diversified water demand, TWC has continuously reviewed and adjusted its organizational operations and resource allocation. The Company has strengthened supply stability and Drinking Water Quality, while enhancing service efficiency and customer experience. Guided by the core principles of “Sufficient Supply, Superior Quality, and Service Excellence,” TWC incorporates efficient resource utilization, risk management, and public interest into its decision-making to maintain a long-term balance between corporate operations and societal needs.



## ▼ Overview of Taiwan Water Corporation (TWC)

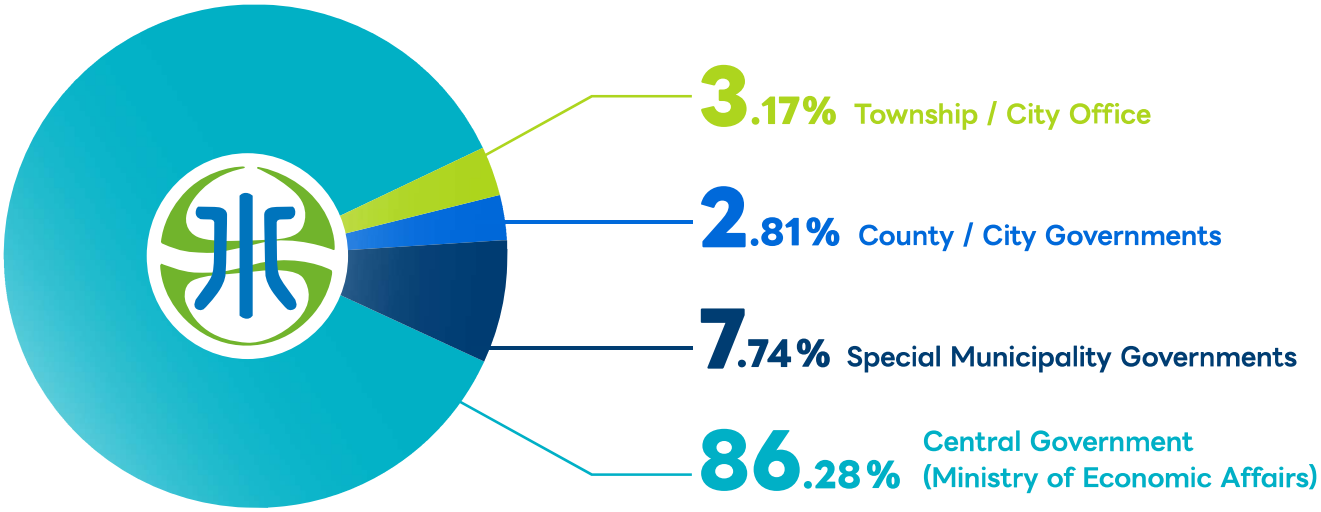
### Taiwan Water Corporation

| | |
|---|---|
| Ownership / Market Status | State-Owned Enterprise under the Ministry of Economic Affairs (MOEA) |
| Industry Category | Water Utility Operations |
| Core Businesses | Water supply, water source development, and construction of water supply infrastructure |
| Date of Establishment | January 1, 1974 |
| Paid-in Capital | NTD 157.5 billion |
| Chairman | Chia-Jung Lee |
| President | Ting-Lai Lee |
| Number of Employees | 5,897[1] |
| Headquarters | No. 2-1, Section 2, Shuangshi Road, North District, Taichung City |

**Official Website**

water.gov.tw

## ▼ Shareholding Structure of TWC




[1] The data is valid as of December 31, 2025.

## 1.1.1 Our value and mission

### Vision

Actively strengthening corporate governance and fulfilling corporate social responsibility to enhance competitiveness and realize the vision of becoming a world-class water utility.

### Mission

To provide sufficient, high-quality potable water supported by integrity-driven management, fulfilling corporate social responsibility, achieving sustainable operations, and fostering economic development.

### Management Philosophy

## Efficiency and Rapid Service QuICK

### Quality

Continuous improvement to ensure excellence in design and construction, Drinking Water Quality, and customer-centric service quality.

### Innovation

Driving sustainable development through innovation in technology, management, and services.

### Credibility

Understanding customers' expectations with empathy and dedicating efforts to water source development, enhancing water treatment capacity, and optimizing supply allocation to ensure reliable and high-quality water and services, thereby earning customer trust.

### Knowledge

Strengthening professional expertise by integrating core water utility technologies with forward-looking management practices, and reinforcing this foundation through a commitment to lifelong learning.

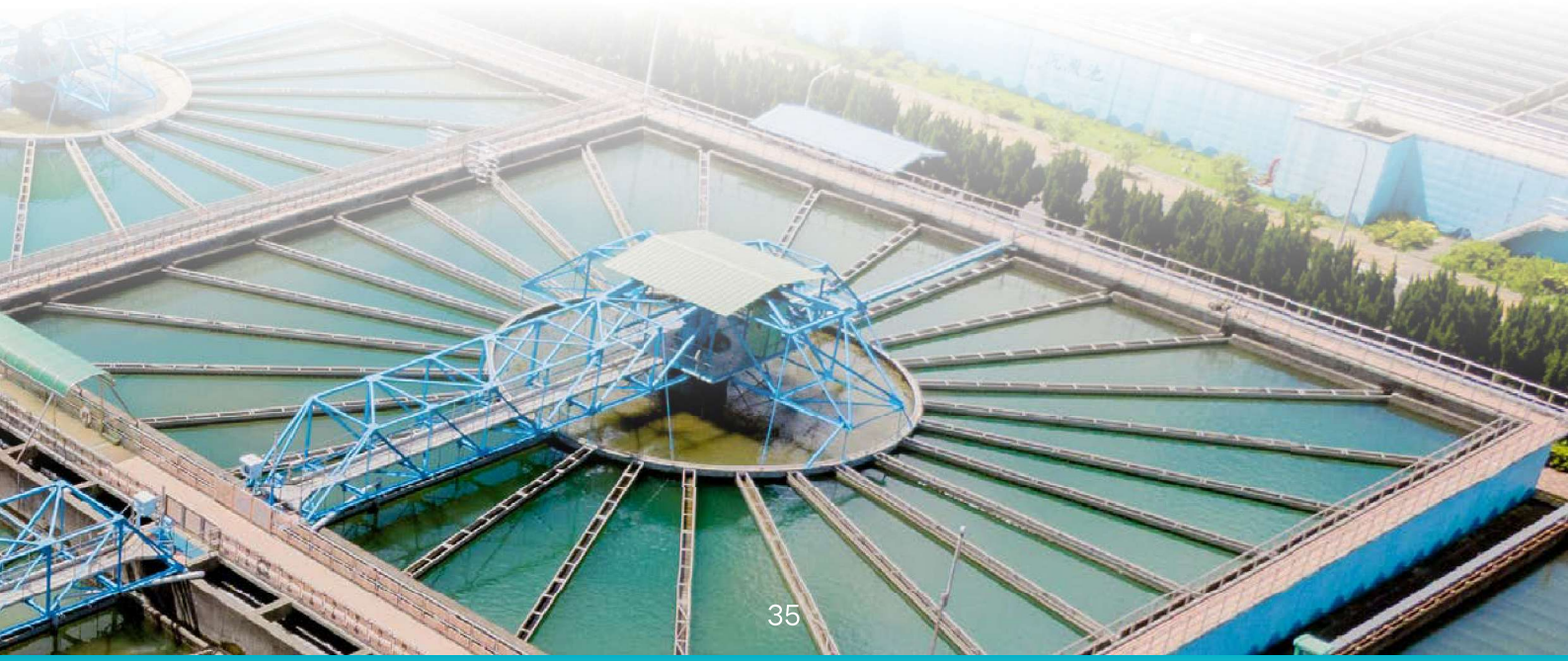


## 1.1.2 Our operation and service

TWC's service coverage and operational spread across Taiwan, making it the primary provider of clean water. In addition to continuously enhancing operational efficiency and modernizing facilities, TWC aligns with national policies to expand Water Supply Coverage Rate. The Company actively allocates resources to indigenous communities, remote areas, and regions without access to piped water. Preferential measures are offered for offshore islands, schools at all levels, and municipal public water use, while firefighting water is provided free of charge to support public welfare and social development.

Clean water is produced by treating Raw Water through a series of processes at water treatment plants, followed by disinfection, and delivered to individual customers via pumps and the distribution network. In accordance with government water resource development policies, TWC participates in upstream water resource planning and integration, implements water infrastructure projects, and develops regional small-scale water sources (such as deep wells and hyporheic water). Surface water, Groundwater, and Reservoir water are jointly allocated to optimize supply. Notably, in Penghu, TWC has developed seawater desalination facilities and water refilling stations. It is also interconnected with the Taipei Water Department distribution network system in Sanchong, Zhonghe, Banqiao, Luzhou, Tamsui, Guandu, and Xizhi. In Xiaoliuqiu, an undersea pipeline has been developed to transport water. These initiatives ensure sufficient supply to meet the demands of economic growth and improved living standards. TWC's primary business activities include:

- **Supplying public, residential, and industrial water nationwide.**
- **Developing water sources and constructing water supply infrastructure to promote the universal availability of potable water across Taiwan (excluding Kinmen, Matsu).**
- **Operating and investing in water-related businesses.**



TWC's business model is structured into three main operational stages: water sourcing, water treatment, and water supply services, as illustrated below. Detailed performance and policies are provided in Section 1.2.:

## ▼ TWC Value Chain

**Water Sourcing** (Water Procurement and Intake) **Upstream** | **Tr**

### Sustainability Impacts and SDGs

Develop and maintain water infrastructure, protect source water ecosystems and local value, create employment opportunities, and generate co-benefits such as small hydropower generation.




Construct and maintain wa
innovation in water treatme
economy solutions for trea
Renewable Energy use, imp
carbon reduction, and safe




### Inputs and Strategies

- Water source development and management
- Maintenance of upstream reservoirs and water intake facilities (weirs and pumping stations)
- Watershed protection and ecological conservation
- Water quality safety management and monitoring at source
- Engagement with local communities

- Implementation of Wate
- Upgrading and expansio
- Water treatment proces filtration, and disinfectio
- Monitoring of hazardous
- Smart water quality mo Precision Chemical Dosi
- Pollutant discharge man
- Circular reuse of waste

### Outcomes and Operational Performance

- Total water supply: 3.24 billion tons
- Water Source Portfolio 2025:
  - Groundwater 12.39%
  - Surface water 30.89%,
  - Reservoir water 56.35%
  - Seawater/Saline water 0.37%
- 21 reservoirs under TWC management
- Seawater desalination plants in operation: Qimei and Jibei
- Seawater desalination plants under construction: Hsinchu and Tainan

- 486 water treatment pl
- Total annual treatment
- Water Quality Complian
- Water used for treatme 190 million ton

## Water reatment Midstream

ter treatment facilities, advance ent technologies, develop circular atment by-products, expand prove energy efficiency and eguard drinking water quality.




er Safety Plan (WSP)
on of water treatment plants
ss management: sedimentation, on
s substances and pollutants
nitoring and AI-enabled ng
nagement

ants nationwide
capacity: 5.205 billion tons
nce Rate: 99.95%
nt processes: approximately

## Water Supply Services (Dispatch, Distribution, and Sales) Downstream

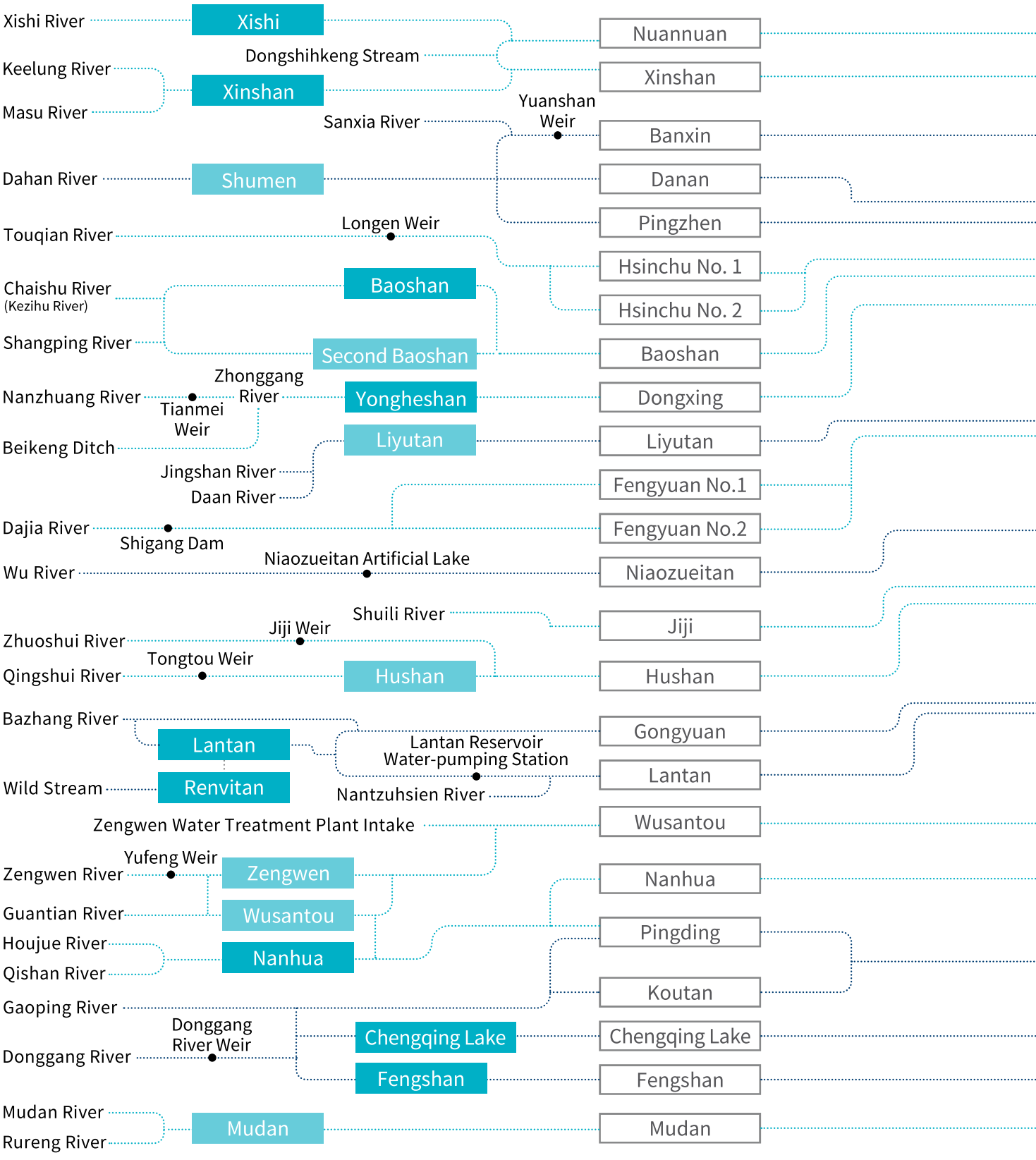
Create economic value through water sales, meet domestic and industrial water demand, and enhance water security, water conservation, water affordability and access, support for vulnerable groups, as well as public health and hygiene.




- Strengthening cross-regional water dispatch capabilities
- Planning and construction of transmission pipelines for water allocation
- Review and communication of water pricing rationalization
- Customer relationship management and feedback collection
- Development of AI-based leak detection technologies

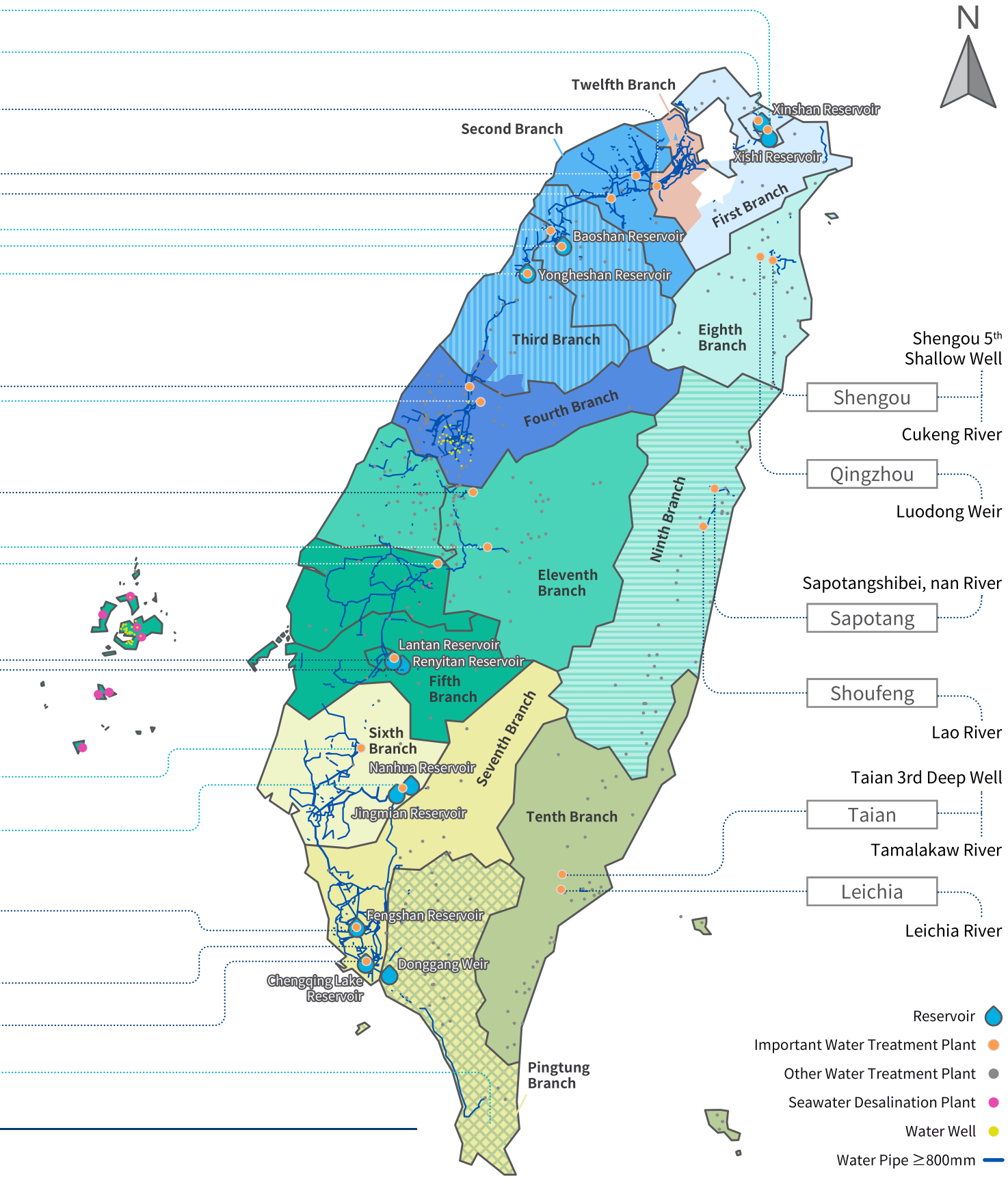
- Total distribution network length: 69,099 km
- Total water sold in 2025: 2.604 billion tons
- Water Leakage Rate in 2025: 11.52%
- Total customers:
  - 8,017,801 accounts
  - General Water Customers: 97.87%
  - Industrial and Commercial Water Customers: 0.49%
  - Vessel customers: 0.002%
  - Government and other users: 1.63%
- Total pipeline leak repair cases in 2025: 38,327
- Customer satisfaction rate: 98.83%

TWC's primary operational sites and water supply service areas are illustrated in the figure below.



▼ Distribution map of TWC's service areas and major facilities

## TWC Water Supply Service Areas And Locations of Major Facilities



## 1.1.3 Our business strategy and target

TWC operates in a complex environment characterized by numerous internal and external challenges. Externally, extreme climate events are increasingly affecting hydrological conditions and water supply systems, while the development of new water sources remains difficult. Internally, the Company faces rising workforce demands and talent gaps, aging pipelines and facilities, and significant capital requirements for infrastructure improvements. To address these challenges while ensuring policy continuity, TWC has conducted comprehensive analyses and identified 6 key operational priorities and 14 strategic objectives for the next six years, comprising 6 qualitative goals and 8 quantitative targets.

### ▼ TWC's Strategic Priorities and Objectives

| Operational Challenges | Strategic Initiatives | Qualitative Goals | Quantitative Targets (2032) |
|---|---|---|---|
| **Increasing risk of unstable water supply** | 1. Diversified Water Source Development<br>2. Continuous reduction of Water Leakage Rate<br>3. Development of Backup Pipeline Project<br>4. Strengthening Emergency Response Capabilities | Stable Water Supply | • Water sold: 2.698 billion tons<br>• Water Leakage Rate: 9.77%<br>• Percentage of revenue water: 82.13%<br>• Water production: 3.285 billion tons<br>• Supply capacity: 5.449 billion tons<br>• Water Quality Compliance Rate: 99.95%<br>• Water Supply Coverage Rate: 95.92%<br>• Carbon Reduction Volume: 111,500 tons |
| **Increasing demand for higher water quality** | 5. Modernization of Water Treatment Plant<br>6. Promoting End-to-End Water Safety | Superior Water Quality | |
| **Rising expectations for service** | 7. Enhancement of customer convenience services<br>8. Increasing Water Supply Coverage Rate | Service Enhancement | |
| **Growing workforce demand** | 9. Optimization of human resources<br>10. Advancement of management innovation<br>11. Strengthening digital and information capabilities | Organizational Optimization | |
| **Net Zero Transition trend** | 12. Improving energy efficiency<br>13. Development of green energy<br>14. Promote Green Office<br>15. Provision of eco-friendly services<br>16. Effective resource reuse | Net Zero Emissions | |
| **Financial Challenges** | 17. Revenue growth<br>18. Cost reduction | Financial Resilience | |

## 1.1.4 Organisation engagement

TWC actively participates in domestic industry associations, academic societies, and guilds. Through mutual exchange and cooperation, we acquire the latest information and align closely with the industry, leveraging TWC's influence on various issues and continuously engaging with industry partners. In 2025, TWC participated in multiple industry associations. We serve as the Chairman, Director, and Supervisor of the Chinese Taipei Water Works Association, and as a Director in both the Chinese Taipei Society for Trenchless Technology and the Chinese Water Resources Management Society; for other organizations, we maintain general membership. We also sponsor various association events. Our external engagements primarily focus on water resources, water quality, and environmental sectors, supplemented by industrial development, tourism, and public administration, maximizing the benefits of strategic partnerships.

### ▼ TWC 2025 Memberships in External Organizations

| Membership Participation | |
|---|---|
| Chinese Taipei Water Works Association | Taiwan Visitors Association |
| The Institute of Internal Auditors - Chinese Taiwan | Chinese Taipei Society for Trenchless Technology |
| Chinese Society of Mechanical Engineers | Local Chambers of Commerce |
| Chinese Institute of Civil and Hydraulic Engineering | Taiwan Museum Association |
| HengShantou Agricultural Leisure Area Development Association | New Taipei City Shulin District Manufacturers Association |
| Chinese Ocean and Underwater Technology Association | Chinese Environmental Analysis Society |
| Yilan Museum Association | Yilan Longde Manufacturers Development Association |
| Chinese Institute of Engineers | International Commission on Irrigation and Drainage |
| Taiwan Administrative Law Association | Local Nurses Associations in Various Counties and Cities |
| Chinese Society of Structural Engineering | National Toxic and Concerned Chemical Substances Joint Defense Organization |
| Taiwan Micro Hydropower Association | Chinese Water Resources Management Society |

| Sponsorship of Partner Organization Activities | |
|---|---|
| Chinese Water Resources Management Society | Taiwan Agricultural Engineers Society |
| The Chinese Institute of Environmental Engineering | Taiwan SHP Industries Alliance |
| Chinese Taipei Society for Trenchless Technology | Chinese Environmental Analytical Society |
| Small and Medium Enterprise and Startup Administration | National Yang Ming Chiao Tung University |

# 1.2 Water Source Management

TWC was established to effectively develop public water supply across regions and accelerate the development of water utilities nationwide. In recent years, the water supply coverage rate has exceeded 95%. However, with the increasingly significant impacts of climate change, both domestic and international sectors face multiple pressures, including extreme droughts and torrential rains, emerging disasters, and energy challenges, rendering the water security landscape more severe. Recognizing this, from raw water, water treatment, water supply, to end-use water management, TWC integrates internal and external resources, aligns with government policies, and draws on the developmental experiences of international water utilities to formulate short, medium, and long-term water resources management strategies as follows:

| Short-term Goals (2027-2029): Strengthening Resilience and Completing Infrastructure | Medium and Long-term Planning (2030-2032): Smart Transition and Net-Zero Sustainability |
|---|---|
| • **Accelerating the completion of backup transmission pipelines:** Complete the "Backup Pipeline Project," encompassing 17 critical main pipelines across Taiwan to ensure stable regional water supply during pipeline maintenance or disasters.<br>• **Diversified water source development:** Increase water sources such as hyporheic water and seawater desalination plants to enhance regional water supply stability.<br>• **Achieving initial leak reduction targets**: Execute the "Leakage Rate Reduction Plan," aiming to lower the water leakage rate to 10.37% by 2029.<br>• **Enhancing disaster response capabilities:** Complete the repair of water supply facilities in disaster-stricken areas, install additional generators and power connection points, and strengthen power supply stability during flood seasons.<br>• **Continuously improving water supply in areas without tap water:** Execute the "Phase V Water Supply Improvement Plan for Areas without Tap Water - Water Main Extension Projects." From 2027 to 2029, it is expected to add approximately 2,400 to 3,300 new households annually, enhancing water safety and stability. | • **Moving towards a single-digit rate leakage Rate:** Continuously implement AI-assisted Leak Detection technologies and increase the ratio of smart monitoring, with the goal of reducing the water leakage rate to below 9.77% by 2032.<br>• **Achieving Net Zero Emissions goals:** Through carbon reduction methods such as optimizing water supply processes, reducing reliance on electrical energy, and enhancing the overall distribution network's smart monitoring and response capabilities, achieve a total carbon reduction volume of 111,500 tons $CO_2e$ by 2032.<br>• **End-to-End water safety and modernization:** Continuously implement the modernization of water treatment plant; in response to new PFAS standards, establish comprehensive monitoring and treatment technologies for emerging contaminants.<br>• **Reaching coverage and sales targets:** By 2032, achieve a water supply coverage rate of 95.92% and increase total water supply to 3,285,737,000 $m^3$, fully supporting the new water demands of industries and domestic users.<br>• **Smart water networks and Service Enhancement:** Promote smart meters and the "Water Meter e-Steward" to help users grasp real-time water usage trends, and improve service efficiency through AI-powered customer service. |

## 1.2.1 Water Source Management

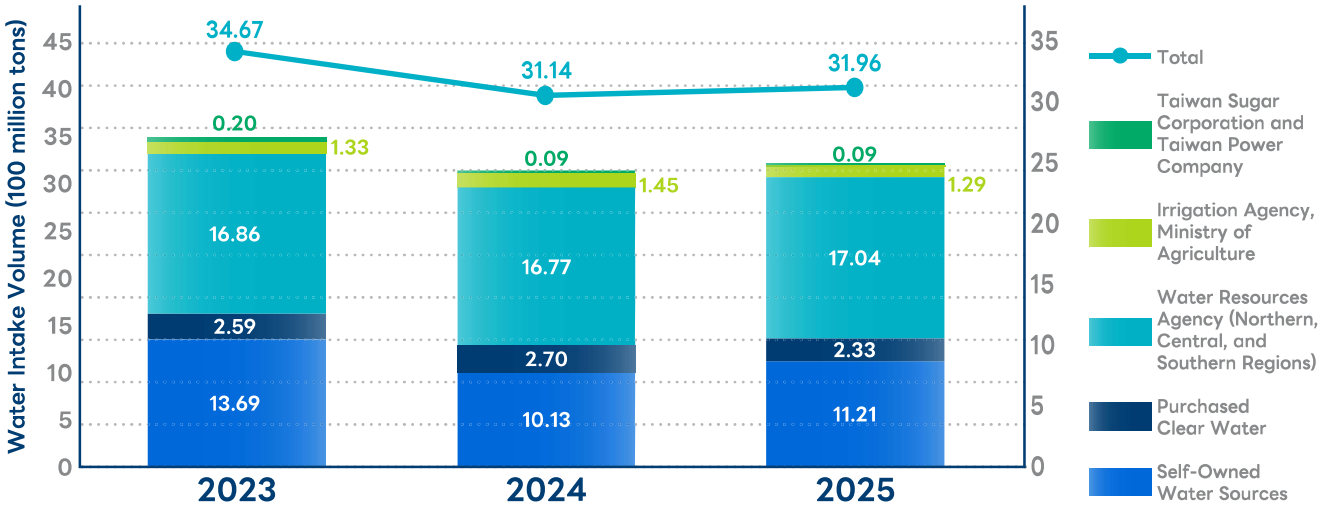
TWC relies on diversified water sources as the foundation for a stable water supply. By integrating different sources, including surface water, groundwater, reservoir water, and seawater desalination, we have established a highly flexible water supply system. Following comprehensive water resources planning, and in response to uneven temporal and spatial rainfall distribution caused by future climate change, as well as increasing industrial water demands, we continue to promote diversified water Source development. This includes developing hyporheic water water, constructing seawater desalination plants on Taiwan's main island and offshore islands, and increasing water supply and backup capacity during high turbidity events and dry seasons. Through cross-regional backup transmission pipelines and system integration capabilities, we enhance the efficiency of dispatching surplus water to alleviate shortages, thereby mitigating the uncertainties brought by climate change and growing water demands. [2]

[2] According to the Aqueduct Water Risk Atlas (AWRA) developed by the World Resources Institute, no areas in Taiwan are classified as facing high or extremely high baseline water stress.

## A. Diversified Water Source System and Water Intake Overview

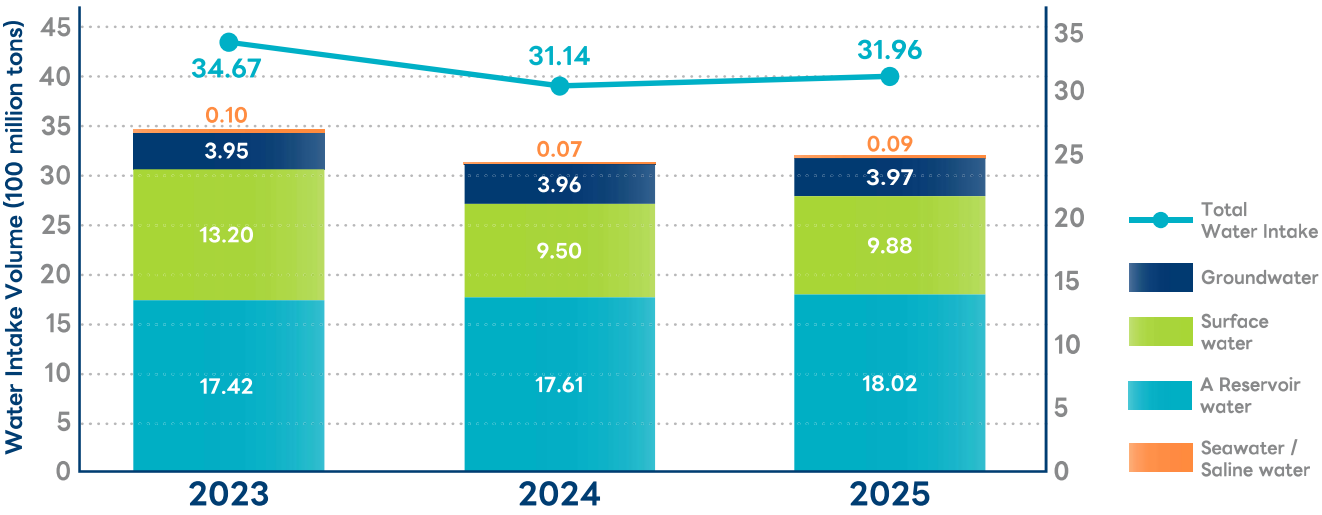
In terms of water acquisition, besides our own water sources, TWC has established collaboration mechanisms with the Water Resources Agency, Irrigation Agency (Ministry of Agriculture), Taiwan Sugar Corporation, Taiwan Power Company, and Taipei Water Department. Through regular water source coordination meetings and inter-agency dispatching, we ensure regional water supply stability. All water sources are drawn from Taiwan's main island and the Penghu region, managed and distributed through 141 water supply systems to form a comprehensive distribution network.

### ▼ TWC 3-Year Water Intake Trends




Regarding water source composition, over the past three years, reservoir water has been the primary source, followed by surface water and groundwater, with seawater / saline water serving as supplemental sources in specific areas. The overall water intake structure remains stable, demonstrating that the diversified water sources strategy has yielded tangible results, effectively mitigating the risks associated with relying on a single water source.

### ▼ TWC Water Sources Over the Past Three Years



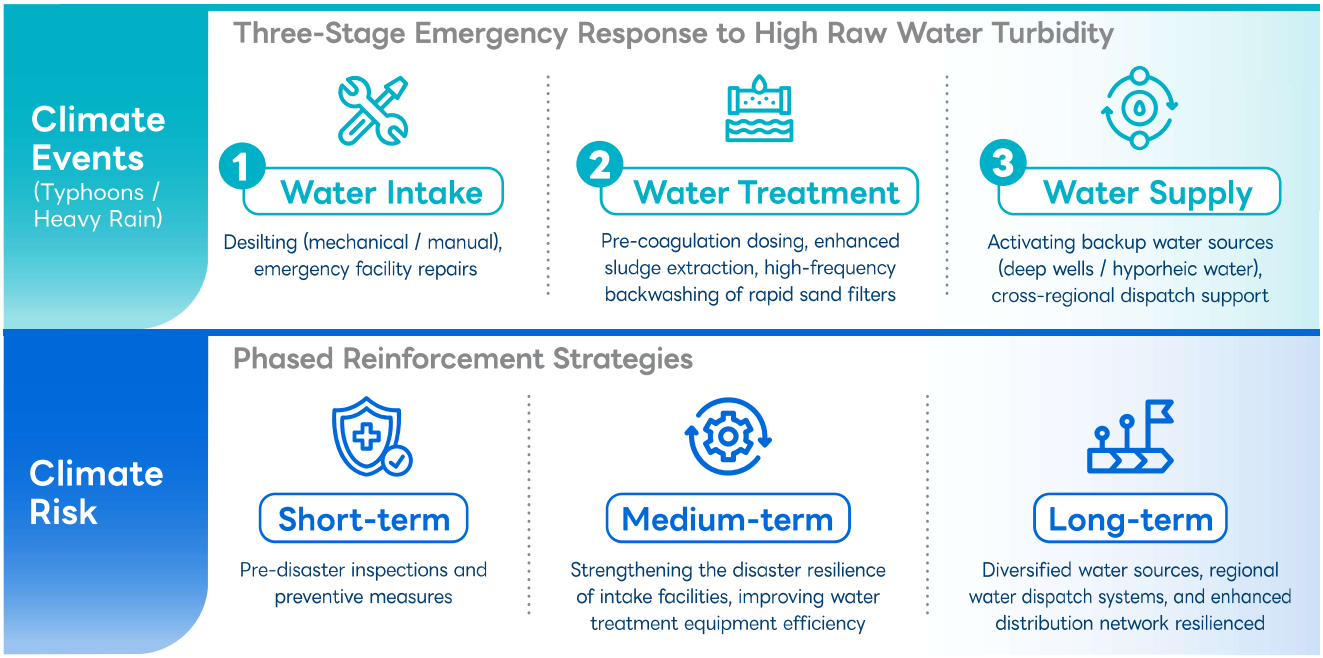
B. Water Source Protection and High Turbidity Risk Response Mechanism

In accordance with the Water Supply Act and relevant regulations, TWC continues to promote water source protection and watershed management. Through institutionalized inspection and regulatory mechanisms, we ensure water safety. Our branches conduct water source inspections based on standard operating procedures, utilizing systemic management tools to compile inspection results and violation cases, thereby enhancing the management efficiency of water source protection areas.

In practice, we have established a reporting and handling mechanism for violations within water source protection areas. All cases are legally reported to the competent authorities and continuously tracked until closure. In 2025, a total of 207 violation cases were reported, primarily involving illegal waste disposal, with the remainder related to land development activities. All cases have been effectively controlled, with only one case currently remaining under active tracking. Moving forward, we will continue to improve inspection efficiency and establish a risk grading system.

Facing the impacts of climate change, we have identified extreme rainfall and high-turbidity raw water as critical risk issues. We have established a three-stage response mechanism covering water intake, water treatment, and water supply to mitigate impacts on supply stability and drinking water quality. Simultaneously, through short-, medium-, and long-term planning, we are progressively strengthening the disaster resilience of water intake facilities, improving water treatment efficiency, and advancing diversified water sources and regional dispatch capabilities to enhance the overall resilience of the water supply system.

▼ High Turbidity Risk Response Mechanism




## 1.2.2 Water Treatment

Water safety is also a core corporate mission of TWC. Since 2019, all 486 water treatment plants under TWC have promoted the Water Safety Plan (WSP), with the goal of maintaining a 99.95% water quality compliance rate and a 100% compliance rate for health-impacting substances annually. Due to Taiwan's unique climate and topography, coupled with recent global warming, fluctuations in water turbidity and

rising temperatures have led to an increase in algae and bacteria. Concurrently, human development and improper discharges have elevated the risk of water source pollution in watersheds. TWC continuously monitors potential daily pollution risks. Furthermore, with the emergence of emerging contaminants (such as microplastics and PFAS), water quality management has shifted from "end-of-pipe testing" to a focus on "source early warning." To ensure water quality safety, TWC has set short-, medium-, and long-term goals and established a management assessment mechanism. At the same time, we are committed to advancing our testing technologies, valuing customer feedback on water quality via our hotline, safeguarding customer health and safety, and creating positive societal impacts.

Adhering to the principle of ensuring customer health and safety, TWC is committed to implementing the following specific actions:

- **Regular Water Quality Testing**

  We independently conduct various water quality tests in accordance with testing standards. Each water treatment plant tests the middle and end sections of the distribution network at least once a week. We also proactively handle pipeline engineering projects and address customer complaints (including the 1910 hotline and petitions).

- **Source Management**

  Based on regulations such as the Biological Sensor Monitoring Guidelines for Raw Water, Standard Operating Procedures for Sampling and Testing During Abnormal Water Quality Events, and Emergency Response Procedures for Reservoir Algal Blooms and Toxins, we continuously conduct sampling, monitoring, and early warning alerts.

- **Emerging Contaminants Management**

  TWC commissioned academic institutions to conduct the "Preliminary Plan for Addressing Emerging Contaminant Controls in Water Safety Management." We proactively assess 20 emerging contaminants that may be regulated in Taiwan in the future, along with their detection and water treatment technologies. Based on the plan's conclusions, we have outlined the direction of our water quality operations for the next decade, including testing parameters, human resources, instrumentation, water treatment research, and pilot programs. We are also establishing baseline data for emerging contaminant concentrations at TWC's water treatment plants, which will serve as a foundation for future negotiations with the Ministry of Environment regarding the potential regulation of these contaminants.

- **ISO International Standard Certification**

  In 2025, the water quality laboratories across our branches successfully passed their surveillance assessments, and the Chemical Division Laboratory of the Department of Water Quality passed its ISO/IEC 17025 extension assessment. This ensures the effectiveness of our laboratories' quality management systems, lending greater credibility to TWC's water quality testing data and boosting public confidence in our water quality.

- **Modernized Monitoring Systems**

  We have formulated the Modernization of Water Treatment Plant plan to upgrade and install modernized water quality monitoring instruments. We have also installed automatic oil pollution monitoring equipment and automatic fish observation systems in major river basins to strengthen the early warning mechanism for raw water pollution. Concurrently, integrating AI and big data in distribution network monitoring reduces human interference and improves monitoring accuracy.

- **Emergency Response for Abnormal Water Quality Events**

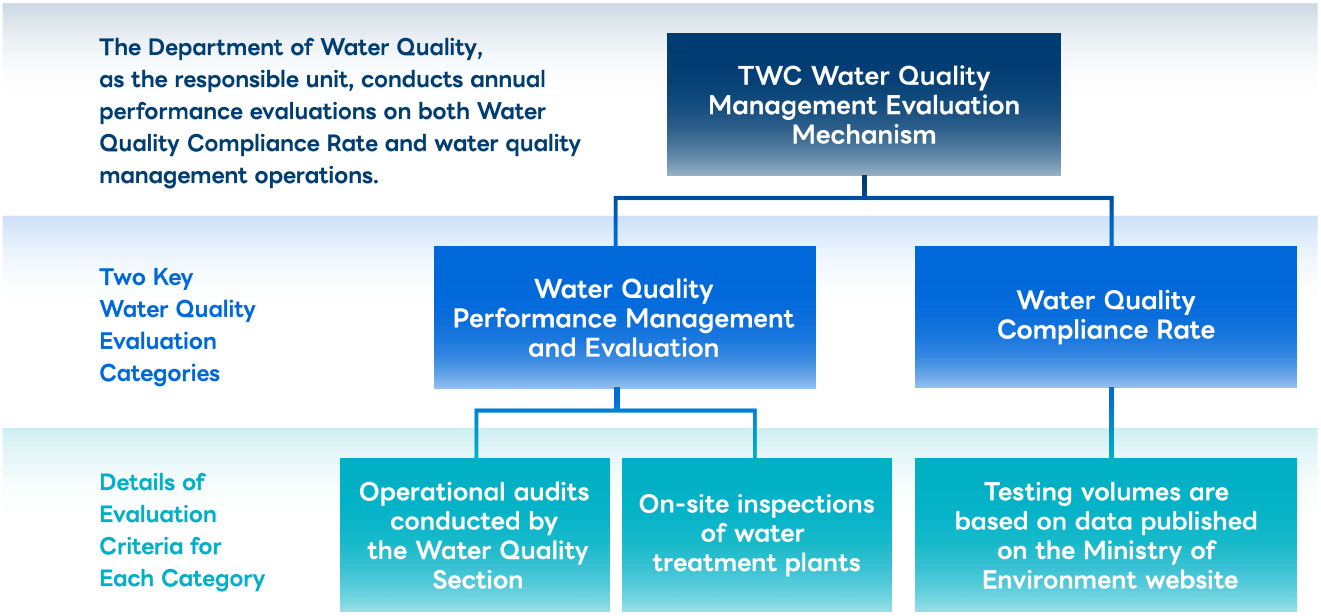
  By carefully selecting raw water sources, we minimize the chance of utilizing contaminated water. When abnormal water quality events occur that may impact end-user water safety, we immediately increase the frequency of manual inspections and water quality testing according to the standard operating procedures for such events.[3] Depending on the pollution severity, we will halt water intake, water treatment, and water supply, and simultaneously notify relevant authorities to adjust water dispatch, preventing contaminants from reaching end-users and ensuring drinking water quality.

- **Incorporating Water Quality Operations into the Responsibility Center Evaluation Mechanism**

  Through the water quality management assessment mechanism, the Department of Water Quality responsibility center conducts annual evaluations of the water quality compliance rate and water quality operations to ensure the provision of safe and high-quality drinking water to the public.

[3] In accordance with the Appendix to the Standard Operating Procedures of the Emergency Response Task Force.

## ▼ TWC Water Quality Management Evaluation Mechanism




In 2025, TWC conducted 360 operational audits of the water quality divisions[4] and 708 on-site inspections of water treatment plants[5]. To improve equipment at certain plants, we are gradually implementing the Modernization of Water Treatment Plant across a total of 21 locations in phases. We expect to complete improvements at 7 more locations by 2028 (having already completed 6 by the end of 2025). The remaining 8 locations are still in the planning phase, undergoing preliminary processes such as feasibility studies, land acquisition or leasing, and design.

Regarding emerging contaminants, to strengthen the safety management of these substances, we enhanced voluntary PFAS testing starting in 2025, integrating it into the testing schedules of all water treatment plants across branches. We are currently conducting baseline analyses based on an observation list. In 2025, we completed 2,337 tests across 13 items, detailed in the table below

## ▼ 2025 Baseline Analysis of Currently Unregulated Parameters in Water Quality Standards

| Item | Count | Test Results |
|---|---|---|
| **Semi-Volatile Organic Compounds (SVOCs)** | **443** | No exceedances of international regulatory limits |
| **Organophosphorus and Carbamate Pesticides** | **396** | No exceedances of international regulatory limits |
| **Volatile Organic Compounds (VOCs)** | **252** | Test results pose no risk |
| **Perfluorinated Compounds (PFAS)** | **381** | Test results pose no risk |
| **Total Microcystins** | **591** | No exceedances of international regulatory limits |
| **Microcystin-LR** | **204** | No exceedances of international regulatory limits |
| **Giardia and Cryptosporidium** | **70** | Test results pose no risk |

[4] Audit Topics: Water quality testing operations conducted by the Water Quality Section; submission of testing reports and documentation; sampling and sample delivery procedures; water quality certification activities; and management of laboratory liquid waste and toxic chemicals.

[5] Audit Topics: Review of water quality testing reports; proficiency testing of water quality analysis capabilities; maintenance and calibration management of water quality testing and monitoring instruments; establishment of jar test procedures and chemical dosing curves; and operation of water quality early warning systems and response mechanisms for abnormal water quality events.

Looking ahead, in coordination with the expected completion of the new office building in June 2027, TWC plans to install testing equipment and establish testing technologies year by year based on the aforementioned preliminary plan. We will conduct baseline investigations of water quality at various plants and stations to identify high-risk locations, serving as a basis for water treatment improvements. In 2025, we will also include these facilities in the PFAS sampling and testing plan.

## Distribution Investigation and Treatment Technology Development for Per- and Polyfluoroalkyl Substances (PFAS)

TWC adopts a risk-oriented approach to proactively seek viable treatment technologies and improvement strategies.
We conduct distribution investigations and analyses for certain water source systems with potential risks. By integrating water quality data analysis and source identification, we are progressively grasping potential pollution sources and impact characteristics. Simultaneously, based on the varying water quality conditions of different sources, we conduct pilot tests and technical evaluations to screen feasible treatment technologies and operational parameters. We evaluated mainstream international technologies used for PFAS removal, including Granular Activated Carbon (GAC), Ion Exchange (IX) resins, and membrane treatment (such as Nanofiltration (NF) and Low-Pressure Reverse Osmosis (LP-RO)). Preliminary results indicate that GAC offers better cost-effectiveness for certain groundwater sources. For surface water, due to its more complex matrix, the efficacy of using GAC or IX technology alone is easily compromised. In such cases, multiple treatments (e.g., GAC combined with IX) or direct use of low-pressure membranes should be adopted to enhance removal stability. Through the investigations, trials, and technology development in this project, TWC aims to build its management and response capabilities for emerging contaminants.

▼ Membrane Filtration Paper Test



▼ RSSCT Adsorption Experiment



The table below outlines TWC's core resource consumption for water treatment, categorized into renewable and non-renewable resources. In 2025, the primary chemicals used were sodium hypochlorite for disinfection (~36.22 million kg) and polyaluminum chloride for coagulation (~31.18 million kg), while potassium permanganate usage was reduced to zero. Chemical consumption fluctuates mainly with raw water turbidity. We continue to adopt smart precision dosing to effectively control usage and minimize environmental impact.

### ▼ 2023-2025 TWC Water Treatment Plant Resource Consumption

| Material | Unit | Renewable or not | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| **Water** | $m^3$ | Renewable | 288,340,560 | 147,776,558 | 189,711,525 |
| **Liquid chlorine** | kg | Renewable | 3,258,941 | 3,191,010 | 3,036,417 |
| **Sodium hypochlorite** | kg | Renewable | 36,983,264 | 38,015,202 | 36,226,396 |
| **Potassium permanganate** | kg | Renewable | 1,007 | 435 | 0 |
| **Sodium hydroxide** | kg | Renewable | 908,669 | 996,022 | 1,077,209 |
| **Solid aluminum sulfate** | kg | Non-renewable | 129,550 | 91,725 | 109,783 |
| **Liquid aluminum sulfate** | kg | Non-renewable | 2,241,695 | 1,985,394 | 1,859,538 |
| **Ferric chloride** | kg | Non-renewable | 12,023,142 | 14,605,819 | 13,628,900 |
| **Polyaluminum chloride (PAC)** | kg | Non-renewable | 27,644,364 | 35,476,498 | 31,180,561 |
| **Others** | kg | - | 716,236 | 627,379 | 794,737 |

## ● 1.2.3 Water Supply Services

TWC's distribution network has a total length of 69,099 kilometers (as of the end of 2025), extending to every corner of Taiwan. However, the pipelines are buried underground, with some laid in early years. Compounded by Taiwan's frequent earthquakes and complex topography and hydrology, maintenance is extremely challenging. To provide the safe and stable tap water required by every citizen and for industrial development, TWC continues to invest significant resources annually. We adopt diverse strategies to strengthen system resilience, enhance distribution network efficiency, and reduce leakages. This ensures enhanced safety and stability in water supply services alongside continually growing water demands.

The total water supply volume and Water Supply Coverage Rate for TWC over the past three years (2023–2025) are shown in the table below. In recent years, the total water supply volume has shown a steady growth trend, increasing in both 2024 and 2025 compared to previous years. This indicates that under enhanced water dispatching and service coverage, overall water supply volume continues to rise.

### ▼ 2023-2025 TWC Total Water Supply and Coverage Rate

| | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Total Water Supply Volume ($m^3$)** | 3,179,746,300 | 3,230,827,173 | 3,240,759,141 |
| **Water Supply Coverage Rate (%)[6]** | 94.91% | 95.04% | 95.01% |

[6] Calculation Method for TWC's 2025 Water Supply Coverage Rate: Number of households in the administrative area (A): Data sourced from household registration records; Population in the administrative area (B): Data sourced from household registration records; Number of households served (C): Data sourced from the operational management system; Population served (D): Calculated as average household size (E) × number of households served (C)

Average household size (E): Calculated as population in the administrative area (B) ÷ number of households in the administrative area (A). Water Supply Coverage Rate = Population served (D) ÷ Population in the administrative area (B)

Facing the challenges brought by climate change, TWC has incorporated "identifying critical pipeline equipment with high public safety and water supply impacts, and enhancing the water supply resilience and disaster tolerance of the distribution network" into our future business strategies. In accordance with the "Regulations on Inspection of Waterworks Facilities," we conduct "Inspections and Patrols of Waterworks Facility Items" and safety assessments for "Waterworks facility items with significant impacts on public safety and water supply risks." We review the "Safety Assessment Plan" every 5 years and submit an annual "Safety Assessment Report" to the competent authority for review and approval. To effectively manage the "waterworks facility items with significant impacts on public safety and water supply risks," the Company continually formulates tracking measures for improvement progress. We review the implementation status of improvements on announced facility items and conduct risk downgrade evaluations, executing necessary risk level updates to strengthen overall safety management of the water supply system.

We project a sustained slight growth in medium-to-long-term water demand. The short-, medium- and long-term targets for water supply and water sales over the next six years are set out in the table below.

### ▼ Short, Medium and Long-Term Targets for TWC's Estimated Annual Water Sales, Production, and Service Volume

| Annual Targets | Short-term | | | Medium and Long-term | | |
|---|---|---|---|---|---|---|
| | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| Water sales volume (Thousand $m^3$) | 2,633,421 | 2,646,325 | 2,659,292 | 2,672,323 | 2,685,417 | 2,698,576 |
| Percentage of revenue water (%) | 81.04 | 81.30 | 81.53 | 81.73 | 81.93 | 82.13 |
| Water supply volume (Thousand $m^3$) | 3,249,532 | 3,255,012 | 3,261,734 | 3,269,697 | 3,277,697 | 3,285,737 |
| Water Supply Coverage Rate (%) | 95.27 | 95.40 | 95.53 | 95.66 | 95.79 | 95.92 |

In addition, in response to the rising industrial water demand in recent years, the government has prioritized recycled water as a key task for technological water production, actively constructing recycled water plants in Hsinchu, Taichung, Tainan, and other regions. Although TWC does not currently play a direct role in the recycled water supply chain, the Company actively supports and aligns with the government's water resources policies.

#### A. System Resilience Construction and Backup Dispatch

Aligning with the Executive Yuan's four major water supply strategies: "Source Development," "Conservation," "Dispatch," and "Backup," among these the "Backup Pipeline Project" was approved by the Executive Yuan. Pursuant to the "Guidelines for the Review of Medium- and Long-Term Individual Projects by Agencies under the Executive Yuan," we actively construct and upgrade water source dispatching main pipelines. This not only stabilizes daily water supply but also enables the system to maintain operations and recover rapidly when subjected to regional disasters. Simultaneously, it meets the increased water demand driven by local industrial development, mitigating environmental and public safety impacts, and achieving the goals of stabilizing public livelihoods and fostering economic development.

The "Backup Pipeline Project" spans from 2021 to 2028 with a total budget of NT$19.95 billion. The program includes 17 key transmission pipelines, comprising 5 in northern Taiwan, 5 in central Taiwan, and 7 in southern Taiwan, covering the western half of the island. Once completed, it will maintain a stable water supply volume of approximately 2.61 million CMD (cubic meters per day), enhancing regional water supply stability, increasing water dispatch and backup capabilities, and ensuring water safety for domestic and industrial use. It also provides a window for the maintenance of aging pipelines by allowing water supply operations to continue during repairs. By the end of 2025, a total of 10 pipelines have been completed, including two in 2025: the "Zhongzheng Road and Da'an Road Pipeline Project in Shulin District" and the "Pipeline Installation Project under the Taichung Railway Elevated Corridor."

Moving forward, we will continue to reinforce the resilience of the massive distribution network, increase water dispatch flexibility, and improve water supply stability. Important projects currently approved and underway include:

### ▼ Important Ongoing Projects for TWC System Resilience

| Project | Timeline | Expected Benefits |
|---|---|---|
| **Backup Pipeline Project** | 2021-2028 | • Enhances water dispatch backup capability and water safety, stabilizing domestic and industrial water supply.<br>• Maintains water supply operations during the repair of aging pipelines, stabilizing water supply volume at approximately 2.61 million CMD. |
| **Hsinchu Science Park Zhunan and Tongluo Bases Water Supply Project** | 2021-2026 | • Strengthens the northward water supply capacity from the Liyutan Water Treatment Plant to the Miaoli Mountain Line, meeting future domestic and industrial water demands along the route.<br>• Water supply capacity increased to a normal 80,000 CMD and backup 120,000 CMD. |
| **Taichung to Yunlin Regional Water Source Dispatch Pipeline Improvement Project** | 2022-2026 | • Increases the maximum transmission capacity of the Taichung-Changhua bidirectional dispatch pipeline to 200,000 tons/day.<br>• Increases the maximum transmission capacity of the Yunlin-Changhua bidirectional dispatch pipeline to 120,000 tons/day. |

#### B. Distribution Network Efficiency and Leakage Prevention

TWC adopts a multi-pronged strategy to enhance distribution network efficiency, reduce leaks, and strengthen network resilience. To reduce the Water Leakage Rate, we actively promote the leak reduction plan and execute leakage prevention strategies, progressively improving the efficiency of the distribution network. Embracing the principles of "engineering as primary, maintenance as secondary, adapting to local conditions, and reasonable allocation," we continuously invest in leakage prevention through four major strategies: "Water Pressure Management," "Speed and Quality of Leak Repair," "Proactive Leak Prevention," and "Pipeline and Asset Management." In terms of implementation, each branch follows internal and external management systems. At the headquarters level, the vice president in charge holds regular review meetings, with the department of water loss management handling staff operations. Each branch has established a "Leakage Rate Reduction Task Force," convened by the branch general manager. Once

the future plans are completed, it is estimated to save approximately 59.1 million cubic meters of water annually, equivalent to about 1.17 times the effective storage capacity of the Hushan Reservoir.

### ▼ TWC's Four Major Strategies and Goals for Reducing Water Leakage

| Strategy | Action Plan | Result | Target |
|---|---|---|---|
| **Water Pressure Management** | Water Monitoring System | • Strengthen deployment operations across water supply systems, implement water pressure management to reduce pipe burst rates, and improve emergency repair efficiency.<br>• In 2025, completed the integration of 13 sets of water supply monitoring platform systems across the company. | • Starting in 2026, old systems will be gradually decommissioned to reduce expenses on system host setup and cybersecurity defense.<br>• Establish 3,647 District Metering Areas (DMAs). |
| **Speed and Quality of Leak Repair** | Leakage Rate Reduction Plan (2025-2032) | • From 2012 to 2025, pipeline leakage density dropped significantly from 0.379 cases per kilometer to 0.196 cases, a decrease of 48.28%. The actual Water Leakage Rate in 2025 was 11.52%, successfully meeting the target. | • Planned investment of NT$80.8 billion, aiming to further reduce the Water Leakage Rate from 11.99% at the end of 2024 to below 9.77% by the end of 2032. |
| | Executive Yuan "Expanded Investment Program" | • Continuous investment. | • Continuously improve water supply system quality. |
| **Proactive Leak Prevention** | Water Advanced Data Analysis (WADA) + Supervisory Control and Data Acquisition (SCADA) | • Collaborating between the two to first identify suspected leak areas, then utilizing the IT cloud AI-assisted Leak Detection technology co-developed with ITRI. The system proactively emails anomaly alerts to regional personnel for inspection and repair reference, while building an incident database for tracking and management.<br>• As of the end of 2025, collected audio data from over 300 leak sites for training, adjusted models and threshold values based on environmental conditions, and simultaneously developed a mobile APP to lower equipment costs. In blind validation tests across 7 branches covering 66.33 km of pipelines, AI and professional personnel achieved highly consistent detection results, demonstrating practical application viability. | • Continue expanding AI-assisted Leak Detection technology to more branches, progressively realizing region-wide adoption. Deploy 100 system accounts and cloud resources to improve operational efficiency. Concurrently integrate large language models (LLM) and operational guidelines to provide real-time judgment and decision support for on-site personnel, building a smart leak detection system collaborating with AI. |
| **Pipeline and Asset Management** | Aging pipeline replacement and DMA improvement projects | • Adopt earthquake-resistant pipe materials such as HDPE, SSP, and DIP-NS to effectively reduce pipe burst risks. | • Target to replace a total of 5,681 kilometers by 2032. |
| | Establish comprehensive geographic information systems (GIS) | • Develop 3D GIS maps and collaborate with the National Development Council, National Land Management Agency, and local city/county governments. | • Continuously update and correct existing GIS maps and new as-built drawings. |
| | Cross-agency collaboration | • Strengthen cooperation with other pipeline utility units and right-of-way agencies, conducting map overlays and joint on-site surveys prior to construction to minimize pipeline damage risks during excavation. | • Continuously evaluate opportunities for cross-governmental and public-private partnerships. |

In 2025, there were 38,327 pipeline leak repair cases. Currently, except for the tenth branch in eastern Taiwan (excluding the Taitung operations office) which handles repairs internally, the majority of pipeline leak repair cases across other branches are outsourced to contractors.

### ▼ TWC Leakage Types in 2025

| Load vibration | Aging and corrosion | Excavation damage during construction | Others | Water hammer | Poor material quality | Land subsidence | Poor construction | Poor backfilling |
|---|---|---|---|---|---|---|---|---|
| 59.37% | 29.23% | 6.02% | 2.19% | 1.77% | 0.72% | 0.37% | 0.28% | 0.04% |

### ▼ TWC Pipeline Replacement Length and Rate Over the Past Three Years

| | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Total length of water mains (km)** | 67,089 | 68,468 | 69,099 |
| **Replaced pipeline length (km)** | 766 | 592 | 462 |
| **Replacement rate (%)** | 1.14% | 0.86% | 0.69 |

### ▼ TWC 2025-2032 Short, Medium and Long-Term Targets for Water Leakage Rate Improvement

| Year | 2025 | | Short-term | | | | Medium and long-term | | |
|---|---|---|---|---|---|---|---|---|---|
| | Target | Actual | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| **Water Leakage Rate** | 11.55% | 11.52% | 11.19% | 10.86% | 10.60% | 10.37% | 10.17% | 9.97% | 9.77% |

## ● 1.2.4 End-Use Efficiency and Water Conservation Measures

End-Use Efficiency represents the "last mile" of water resource utilization, directly impacting the sustainability of overall water resource management. Economically, enhancing end-use efficiency helps customers reduce water bill expenses while strengthening their water management capabilities. Tools such as smart meters and regular water usage notifications enable customers to better understand their consumption patterns and make reasonable adjustments. Environmentally, reducing water consumption and waste decreases the energy required for pumping and water treatment. This not only conserves water resources but also indirectly cuts carbon emissions and helps maintain the ecological balance of aquatic ecosystems in watersheds.

In terms of policies, strategies, and commitments toward end-use efficiency, TWC continuously cooperates with the Bureau of Standards, Metrology and Inspection to conduct water meter sampling inspections, targeting a failure rate of under 4%. We also carry out annual replacements of aging water meters (excluding cases where replacement is not possible due to user reasons or unforeseen events), targeting a 99% replacement rate. Furthermore, TWC is drafting plans to expand the differential pricing structure,

adjusting from the original four tiers to multiple tiers. This will result in higher charges for higher usage, leveraging a differentiated water pricing structure to incentivize water conservation among "general users" and encourage "large water users" to invest in water-saving facilities.

TWC will continuously strengthen end-user water management and conservation measures, widely promoting water conservation. By utilizing technical and economic tools to boost water use efficiency, the company hopes to build a culture of cherishing water resources alongside all citizens, achieving sustainable water resource utilization, and contributing to Taiwan's water security and environmental sustainability.

# 1.3 Operations and Services

An overview of TWC's operational and service systems reveals three core management dimensions: "Customer Service," "Service Resilience," and "Cybersecurity." In terms of customer relations, we serve a broad base of domestic users while satisfying commercial and industrial water demands. Through standardized service workflows and diverse communication channels, we ensure service quality and information transparency. Regarding water supply stability, we mitigate the impacts of unforeseen events on domestic and industrial users through suspension early warnings, network dispatching, and emergency response mechanisms. Concurrently, navigating a digitalized operational environment, TWC continues to fortify customer privacy protection and cybersecurity governance, establishing management systems compliant with international standards. Overall, TWC has progressively shaped a service system that embodies both public service responsibility and operational resilience, supporting the fundamental needs of societal functions and economic development.

## 1.3.1 Customer Relations

TWC's customer numbers for 2025 are shown in the table below: General Water Customers account for 97.87% of the total, representing our primary service base. Although industrial and commercial water customers make up a smaller proportion, they account for nearly 30% of water sales, reflecting TWC's critical role in domestic livelihoods and economic development.

### ▼ TWC Customer Count Statistics in 2025

| | General Water Customers [7] | Industrial and Commercial Water Customers | Vessel customers | Government and other users | Total |
|---|---|---|---|---|---|
| **Count (accounts)** | 7,847,289 | 39,364 | 182 | 130,966 | **8,017,801** |
| **Proportion (%)** | 97.87% | 0.49% | 0.0029% | 1.63% | **100.00%** |

Note: Percentages for each user type are rounded to two decimal places.

[7] The Company categorizes water usage, based on operational management, into general water customers, industrial and commercial water customers, and government and other users, with general water customers including residential and certain commercial uses.

TWC's 2025 water sales volume statistics illustrate the distribution of water consumption among different customer segments, facilitating an understanding of sectoral water demands and the overall water supply structure. The total water sales volume was 2,604,847 thousand cubic meters. General water customers were the primary user group, accounting for 70% of total sales, followed by industrial and commercial water customers at 24%. Vessel and other users comprised 6%.

### ▼ TWC Water Sales Volume Statistics in 2025

| | General Water Customers[8] | Industrial and Commercial Water Customers | Vessel customers | Government and other users | Total |
|---|---|---|---|---|---|
| **Water Sales Volume (Thousand $m^3$)** | 1,834,043 | 622,279 | 977 | 147,548 | **2,604,847** |
| **Proportion (%)** | 70.41% | 23.89% | 0.0004% | 5.66% | **100.00%** |

Note: Percentages for water sales of each user type are rounded to the nearest whole number.

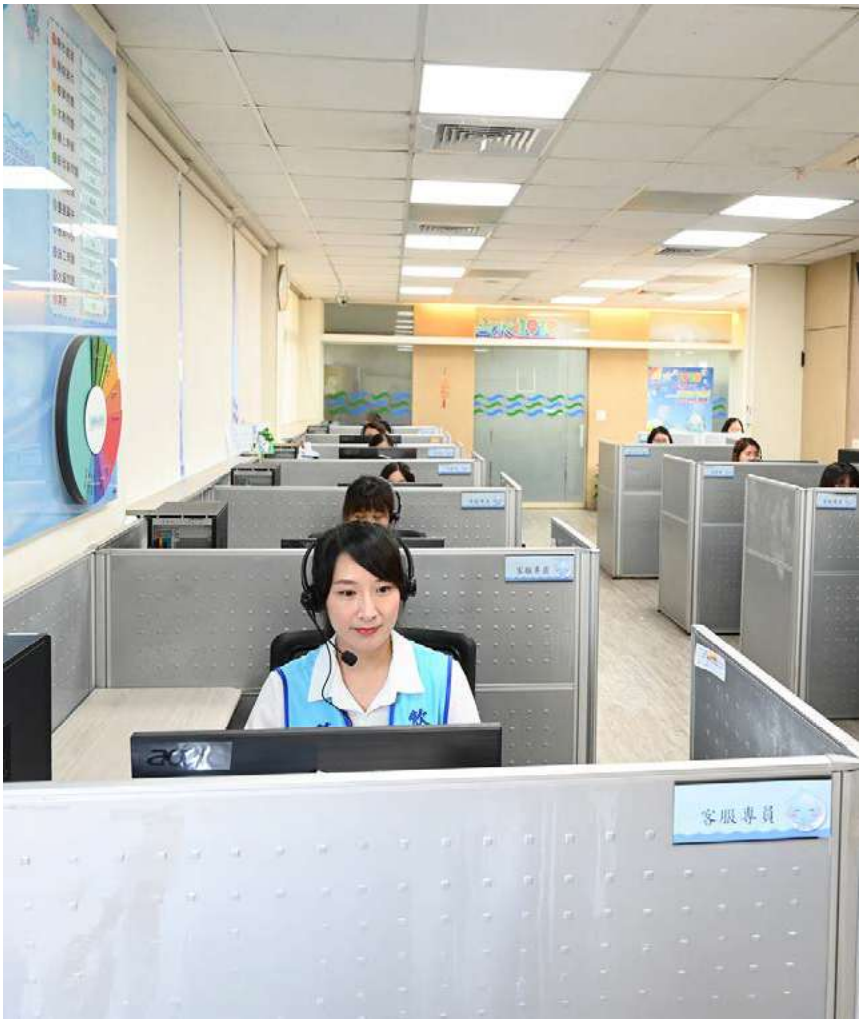
#### A. Routine Customer Relationship Management

TWC strives to satisfy customers with superior water supply and services, ensuring smooth water supply operations, enhancing service quality, and maintaining public trust in public services through stable and transparent customer relationship management. This creates positive impacts on economic operations, social livelihoods, and public safety. In terms of customer communication, we utilize water bills as an essential communication channel to enhance information transparency and strengthen customer engagement. Moreover, through real-time water suspension notices, anomaly alerts, and billing information disclosures, we help users adjust their water usage behaviors in a timely manner, minimizing inconvenience or resource waste caused by unforeseen events. Conversely, insufficient dissemination of water suspension information, delayed customer service responses, or improper handling of complaints could pose potential negative impacts on social trust, public convenience, and the image of our public services.

Adhering to the principle of fair service, TWC generally does not differentiate between general water customers and industrial and commercial water customers, providing water services through consistent workflows and communication mechanisms. We have established new installation application procedures and relevant service standards. The public can submit new installation or related service requests according to the established procedures, which are processed by the respective branches as stipulated.

In terms of customer service management, a call center has been set up to handle public inquiries, suggestions, and complaints. The call center processes cases according to established workflows,

[8] The Company categorizes water usage, based on operational management, into general water customers, industrial and commercial water customers, and government and other users, with general water customers including residential and certain commercial uses.




categorizing and addressing them accordingly. The subsequent tracking and response are handled by the call center and relevant branch units. Annual service records and review reports are compiled regularly to serve as a basis for improving service quality. In 2025, we received a total of 602,525 general inquiry cases, 3,414 complaint cases, 0 customer privacy cases, and 0 community communication cases, all of which were resolved within 3 days. This year, the customer satisfaction survey commissioned by the Department of State-owned Enterprise Affairs scored 97.86 points.

Future plans include the development of an AI-powered smart customer service system, allowing users to obtain real-time service through channels such as the Company's official website, APP, and Facebook fan page. On the other hand, by building a smart water network information system, we will assist users in tracking their household water consumption, enhancing management efficiency, and making the benefits tangible for the public.

### B. Water Suspension Response

Water suspension events are categorized into planned and unplanned suspensions, and TWC makes every effort to prevent such situations. Planned suspensions are usually necessary for engineering or maintenance work. According to the guidelines for water suspension and restoration operations, water suspension information is published on the official website (https://web.water.gov.tw/wateroff/) 7 days prior to the scheduled date to help users prepare in advance. On the other hand, unplanned suspensions are sudden, unforeseeable, and urgent, such as unexpected outages caused by pipeline ruptures, natural disasters, or power failures. The core management approach for this category relies on "predictive maintenance" and "rapid crisis response" to reduce the occurrence of such incidents, shorten restoration times, and minimize impacts on the public. TWC's relevant management policies and response measures are as follows:

## Predictive Maintenance (Routine Prevention and Preparedness)

- Utilizing big data to analyse high-frequency leak hotspots and prioritizing the replacement of aging pipelines.
- Establishing pressure monitoring stations and flow meters; the water supply monitoring platform displays anomalies when sudden pressure drops occur.
- Building interconnecting pipelines in the water supply network to allow emergency support from other regions.
- Establishing a critical database: Includes lists and water usage characteristics of government fountains, medical institutions, large water users (exceeding 1,000 cubic meters monthly), swimming pools, and car washes; investigating the locations of pipeline endpoints and higher elevation areas.
- Equipment and resource preparedness: Keeping important water control valves, specialized valves, water supply points, water trucks, and temporary water supply stations ready at all times. Valves are test-operated regularly or before construction to ensure they close securely.
- Establishing communication networks: Setting up messaging app groups (e.g., LINE) with local elected representatives, village chiefs, and local government officials to serve as real-time communication media.

## Rapid Crisis Response (Emergency Handling Post-Incident)

- Multi-channel notifications: Notifying local governments, hospitals, fire departments, and science parks via SMS and messaging app groups; releasing news through media and the official website; sending suspension alerts to users via LINE and the APP to improve notification efficiency.
- Real-time logging system: Immediately publishing suspension information on the "Water Suspension Announcement Inquiry System." When the 1910 hotline is at capacity, users can also independently report their water supply status via this system.
- Emergency water dispatch and resupply: Preparing and dispatching water trucks, prioritizing resupply to temporary water supply stations at pipeline endpoints and higher elevation areas.
- Strengthening water quality and pressure monitoring, particularly in older communities and frequent pipe burst locations.

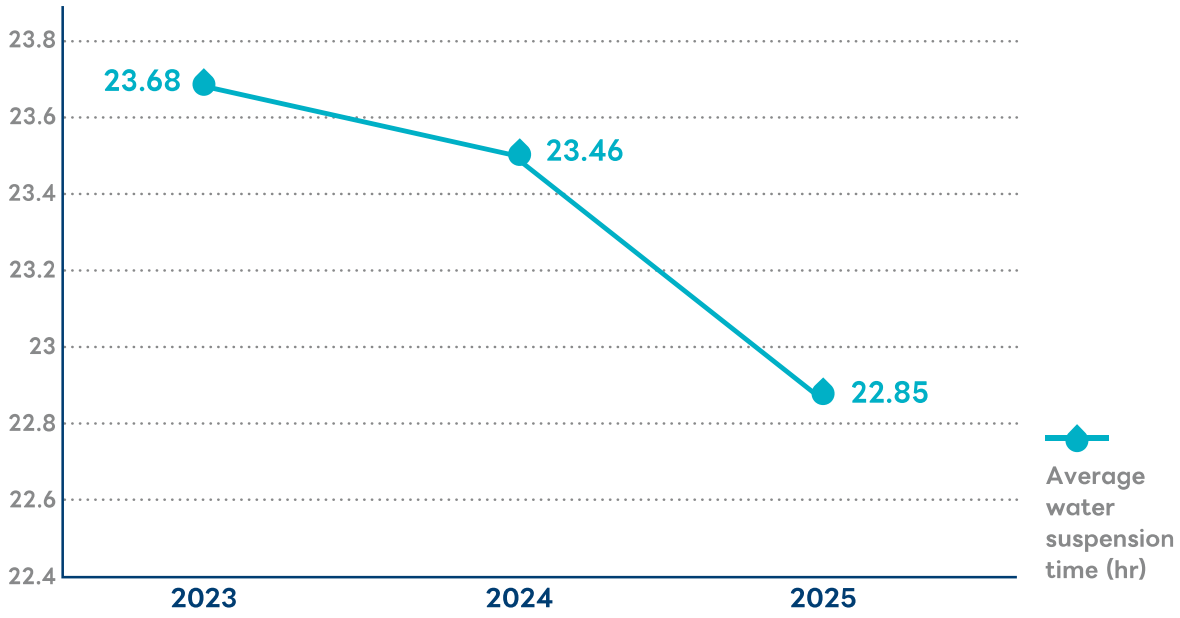
### ▼ Historical Statistics of Major Water Suspensions

| Year / Item | Planned Suspensions (cases) | Unplanned Suspensions (cases) | Total | Unplanned Suspension Ratio |
|---|---|---|---|---|
| **2021** | 1,507 | 3,138 | 4,645 | 67.56% |
| **2022** | 1,654 | 4,114 | 5,768 | 71.32% |
| **2023** | 2,106 | 4,609 | 6,715 | 68.64% |
| **2024** | 1,982 | 4,590 | 6,572 | 69.84% |
| **2025** | 1,291 | 4,062 | 5,353 | 75.88% |

Note: The above statistics cover cases involving suspensions affecting over 1,000 households or lasting over 12 hours.

In 2025, the customer service hotline received 141,469 reports or inquiries regarding abnormal water supply volumes. Upon case creation, the system instantly routed them to relevant units for inspection and repair, and all were closed within 3 days. Over the past three years, TWC's average water suspension time has shown a downward trend, from 23.68 hours in 2023 and 23.46 hours in 2024 to 22.85 hours[9] in 2025, consistently maintaining the goal of restoring water supply within 24 hours.

## ▼ TWC Average Water Suspension Time Over the Past Three Years




## ▼ TWC Unplanned Water Suspensions Over the Past Three Years

| | 2023 | 2024 | 2025 |
|---|---|---|---|
| Number of unplanned suspensions | 17,933 | 17,258 | 15,927 |
| Number of households affected by unplanned suspensions | 18,307,513 | 19,281,523 | 16,383,823 |
| Duration of unplanned suspensions | 80,539 | 77,599 | 62,011 |

## ▼ Number of Unplanned Service Interruptions and Affected Customers in 2025

| Item | Count | Households |
|---|---|---|
| Continuous or scheduled suspension under 1 hour | 898 | 742,434 |
| Continuous or scheduled suspension for 1 to under 12 hours | 14,855 | 14,310,380 |
| Continuous or scheduled suspension for 12 to under 24 hours | 142 | 562,230 |
| Continuous or scheduled suspension over 24 hours | 32 | 768,779 |

[9] ∑(Water outage duration for each outage incident × Number of affected households for each outage incident) ÷ Total number of customers company-wide at year-end

## 1.3.2 Customer Privacy

Regarding customer privacy, TWC is committed to complying with government policies, regulations, and legal requirements. Based on the ISO 27001 standard, we track improvements and preventive measures for identified risks, actively ensuring appropriate protection of information assets to prevent cybersecurity incidents from compromising customers' data.

To ensure the confidentiality, integrity, and availability of critical information assets, including data, information, equipment, personnel, and networks, which TWC has formulated an "Information Security Policy." All information records, physical environments, machinery, software, hardware, personnel (including outsourced vendors), and procedures related to TWC's competent business operations must adhere to this policy. To further perfect the processing of personal data on TWC computers and related equipment, we have established the ISMS normative document "Management Procedures for Computerized Personal Data Processing."

TWC handles cybersecurity operations in compliance with the Regulations for Categorization of Cyber Security Responsibility Levels. All core information systems have adopted an Information Security Management System (ISMS) conforming to the ISO/IEC 27001 standard. Since the Department of Information Management first passed the third-party ISO/CNS 27001 certification (Certificate No.: ISMS117) in 2007, we have passed verification audits every year to maintain its effectiveness and appropriateness.

- **Upholding product responsibility and marketing ethics, we ensure product and service quality, provide transparent complaint procedures, and protect customer privacy.**
- **Preventing cyberattacks and data breaches, and promoting electronic forms to protect sensitive data.**

TWC has established complaint channels such as the 24-hour "1910" customer service hotline and a public feedback mailbox (on the homepage of the TWC official website at http://www.water.gov.tw). Over the past three years (2023-2025), the Company has not received any complaints regarding privacy breaches from customers or regulatory agencies, nor have there been any substantiated privacy breach incidents. Moving forward, we will continue to refine our personal data protection measures, ensuring customer data security and maintaining a high standard for our privacy protection policy.

## 1.3.3 Information and Cybersecurity

TWC deeply understands that information and cybersecurity impact water dispatch, customer service, and data integrity, subsequently deriving economic and societal risks. In accordance with regulations for specific non-government agencies categorized under Cyber Security Responsibility Level A, we have established a comprehensive information security management system. We integrate cybersecurity risks into our overall operational management framework and, through system tiering management, risk assessments, and continuous monitoring mechanisms, we prevent potential threats and mitigate impacts to maintain the stability and reliability of our water supply services.

Institutionally, we have established multi-layered cybersecurity defense mechanisms covering system verification, system monitoring, and continuous drills:

- **Institutional and Verification Mechanisms**

  > Core information systems, including the operational management system, water billing system, and the World Wide Web site, pass annual third-party ISO 27001 reassessments as required, continuously maintaining the validity of the ISMS certification (Certificate No.: ISMS117). Simultaneously, we have completed the categorization

of our information systems and periodically review their appropriateness to ensure corresponding defense strengths are applied to each system.

- **Monitoring and Defense Mechanisms**

  We have deployed firewalls, intrusion detection and prevention systems, web application firewalls, and advanced persistent threat defense mechanisms, integrating critical equipment into a cybersecurity monitoring framework to grasp potential threats in real-time. Additionally, through regular cybersecurity health checks, we inspect the security status of network architectures, hosts, and endpoint devices, reducing the risk of malicious activities.

- **Testing and Drill Mechanisms**

  Core information systems undergo annual vulnerability scanning and penetration testing, alongside regular business continuity drills, to verify the systems' emergency response and recovery capabilities under abnormal conditions. Concurrently, internal cybersecurity audits are executed annually to ensure the thorough implementation of all management measures.

- **Personnel Training and Cybersecurity Awareness**

  We continuously promote cybersecurity education and training, enhancing employees' ability to identify cyberattacks and information risks. In 2025, a total of 54 attendees completed related training, achieving an overall evaluation score of 87.5 points. The training covered topics such as practical cybersecurity case studies, AI application risks, and internal attack scenarios.

For related cybersecurity performance goals, TWC continuously tracks execution through quantitative indicators. In the short term, with 2025 as the primary checkpoint, focus areas include achieving a 100% completion rate for cybersecurity incident reporting and recovery, over 99.5% availability for core systems, and a 100% remediation rate for high-risk vulnerabilities. Simultaneously, we use social engineering drills to mitigate human risks and require all types of personnel to complete corresponding cybersecurity training. In the medium to long term, we will sustain the stable achievement of key indicators, including cybersecurity incident response efficiency and vulnerability remediation completeness, while continuously enhancing the professional capabilities of dedicated personnel to elevate the maturity of our overall cybersecurity governance. Subsequently, based on the ISO 27001 framework, we will conduct risk assessments and improvement tracking. For items exceeding the acceptable risk threshold, we will execute corrective and preventive measures, and compile follow-up reports regularly. Through business continuity drills and monthly tracking mechanisms, we ensure the effective implementation of all improvement measures.



# 02

# ACCOUNTABLE GOVERNANCE


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台灣自來水公司
TAIWAN WATER CORPORATION

# 2 Accountable Governance

This chapter introduces TWC's governance system, operational performance, domestic water pricing policy, innovative technology applications, and risk management mechanisms.

## Corporate Governance Performance

TWC received an **"Excellent"** ratingin the MOEA' s Corporate Governance Evaluation in 2025, demonstrating its governance effectiveness.

Overall Average Score of the 2025 Evaluation

| Board of Directors | Sustainability Development Committee | Land Transaction and Exchange Review Panel |
|---|---|---|
| 4.93 (out of 5) | 5.00 (out of 5) | 5.00 (out of 5) |

## Integrity Governance

In 2025, TWC completed integrity risk assessments for its Headquarters and 16 branch (engineering) offices, achieving **100% comprehensive coverage.**

TWC held **88 integrity education and advocacy events** throughout the year, with a total of **6,861 participants**, strengthening a culture of ethical governance among all employees.

Outsourced pipeline engineering projects (new installations, burying, replacements, or leak repairs) and an occupational safety and integrity public opinion survey were conducted. A total of 362 contractors were interviewed, yielding 181 valid samples. The results showed that the surveyed contractors

**95.6%** were satisfied with the **service attitude of the handling personnel**

**96.2%** were satisfied with the **administrative processes of the procurement cases**

## Technological and Innovative Development Practices

TWC has **implemented technological innovation and intellectual property management systems**. We actively identify needs for innovative R&D and talent training, promoting 4 major dimensions and 7 R&D projects according to our strategies to ensure TWC advances with the times.

**TWC comprehensively researches and introduces AI technologies across various business areas.**

We actively develop AI applications for operational processes, such as raw water monitoring, AI-enabled Precision Chemical Dosing to reduce water treatment costs, and combining drones with image recognition technology for water pipe bridge inspections to reduce manual labor. These initiatives have achieved significant results in water supply energy efficiency.

## Proactive Risk Management

In 2023, the Risk Management Committee elevated the original "Risk Management Task Force" to a higher-level decision-making unit to strengthen the decision-making and execution capabilities of risk control. The committee meets semi-annually to review and revise the annual execution plan on a rolling basis, integrating risk management concepts into the daily work of every employee, demonstrating the governance philosophy of **"properly managing risks in peacetime and properly handling crises during emergencies."**

# 2.1 TWC Governance

The water utility sector is characterized by its public nature, utility, external economies, natural monopoly, and capital intensity. Taiwan's water utility operates as a state-owned enterprise to achieve efficient resource allocation and safeguard public interests. TWC's corporate governance affects not only its operational efficiency but also has a broad impact on Taiwan's economy, environment, and society. Effective corporate governance helps ensure a stable and safe water supply, supporting industrial and commercial development and domestic needs, contributing to economic efficiency, and protecting fundamental rights to domestic water, public health, and national well-being. Regarding environmental sustainability, governance practices must fully support water source protection and efficient resource utilization to prevent and mitigate potential environmental pressures. On a societal level, fair and transparent governance plays a vital role in protecting the water rights of all users and promoting social harmony.

Robust governance is the foundation for maintaining the company's long-term stable operations and societal trust, warranting continuous resource investment. In addition to actively improving operational efficiency, accelerating the modernization of water supply facilities, and providing sufficient and high-quality tap water, TWC continues to promote the Water Supply Coverage Rate in indigenous, remote, and unserved areas. Furthermore, in the public interest, TWC offers discounted water rates to schools at all levels and municipal public facilities, and provides free water for firefighting. While water rates and costs have placed pressure on TWC's stable operations, the company continues to advance water supply construction and expansion projects to ensure policy goals are met on schedule.

## 2.1.1 Corporate Governance Policies and Strategies

To strengthen the corporate governance framework and implement the practices, TWC has formulated the "Corporate Governance Best Practice Principles" in accordance with the "Corporate Governance Policy Blueprint and Action Plan" issued by the Executive Yuan, and with reference to the "Corporate Governance Best Practice Principles for TWSE/TPEx Listed Companies." These principles clearly outline the policy direction, core commitments, and specific strategies for promoting governance, demonstrating TWC's determination to continuously improve governance quality.

According to Article 3 of the TWC Corporate Governance Best Practice Principles, the establishment and operation of the corporate governance system must comply with laws, regulations, the Articles of Incorporation, and various company resolutions, and adhere to the following principles: (1) establish an effective corporate governance framework; (2) protect the rights and interests of all shareholders; (3) strengthen the functions and supervisory effectiveness of the Board of Directors; (4) fully leverage the functions of the Supervisors; (5) respect the rights and interests of Stakeholders; and (6) enhance information transparency.

These principles complement each other to jointly safeguard the company's long-term stable development and achieve optimal benefits. TWC adopts a progressive governance strategy, laying the foundation for governance by building internal consensus. In addition to promoting governance concepts, we make

dynamic adjustments based on the external environment (such as government policies and industry attributes) and internal conditions (such as resources, organizational culture, and Shareholders' Meeting/ Board resolutions) to ensure governance measures are practically and effectively implemented, thereby achieving various corporate governance goals.

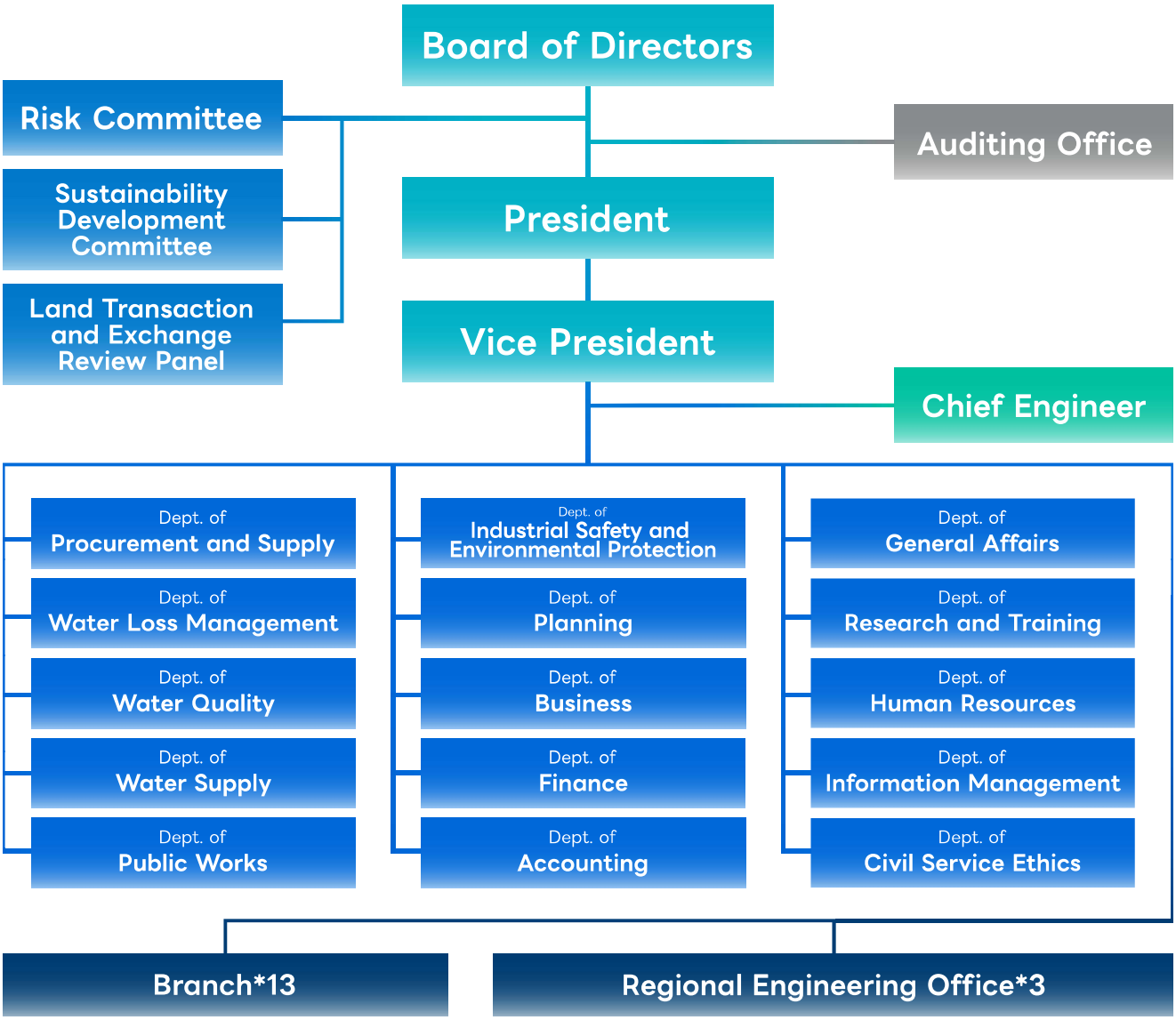
## 2.1.2 Corporate Governance Framework and Operations

TWC is committed to establishing a transparent and accountable corporate governance mechanism to ensure sustainable corporate development and protect the rights of all Stakeholders, aligning governance and execution systems. The Shareholders' Meeting is the company's highest governing body, responsible for electing Directors and Supervisors and making resolutions on major matters, laying the fundamental direction for corporate governance. The Board of Directors, composed of Directors, is responsible for reviewing the company's strategic directions and making major decisions. It has established functional committees such as the Sustainability Development Committee, Land Transaction Review Panel, and Risk Management Committee (elevated to a functional committee in 2026) to strengthen professional review and governance effectiveness. Supervisors independently exercise their supervisory powers under the law, overseeing the Board of Directors and the conduct of company business. The management team is responsible for implementing strategies, overseeing daily operations, allocating resources, and tracking performance in accordance with Board resolutions.

Based on business objectives and developmental needs, TWC has established a Headquarters and branch offices to promote business through an "integrated management, regional operation" approach. The Headquarters is responsible for planning, supervising, and evaluating overall systems and regulations, as well as coordinating human and financial resources. It currently comprises 16 departments, including the Department of Planning; the branch offices include 13 Branches and 3 Region Engineering Offices. The plants, stations, and teams under the Branches are responsible for actual business operations such as production, operation, maintenance, sales, and customer service. In 2026, the Department of Research and Training was newly established, and the Bidding Center and Department of Materials were merged into the Department of Procurement to address the corresponding business and new demands.

Regarding the internal division of responsibilities, the hierarchical delegation of authority is based on the Table of Delegation of Authority approved and amended by the Executive Yuan, which divides the company hierarchy into three levels: "Board of Directors," "Chairman," and "Managers." Based on authority levels, execution responsibilities are allocated to different management tiers. The Board of Directors is responsible for reviewing and approving major policies and plans; the Chairman oversees the company's operational direction, represents the company externally, and handles major external affairs; Managers are responsible for strategic planning, cross-departmental coordination, system establishment, daily management, and execution tracking. The division of responsibilities and reporting mechanisms for each level are clearly defined in the "Table of Delegation of Authority for the Board of Directors, Chairman, and Managers of Taiwan Water Corporation."

## ▼ TWC Corporate Governance Organizational Chart




### A. Governance Operations and Disclosure

TWC has set up a "Corporate Governance Section" on its global website to comprehensively disclose information regarding Shareholders' Meetings, Board of Directors, financial and non-financial information, and corporate governance regulations. Stakeholders can access the public platform to understand shareholder equity, the corporate governance framework, and its operations, demonstrating our commitment to information transparency.

To enhance corporate governance effectiveness, functional committees are established under the Board of Directors. This allows Directors, Independent Directors, and Supervisors to actively participate in corporate operational decision-making through functional committees such as the Sustainability Development Committee and the Land Transaction and Exchange Review Panel, as well as through interactive meetings, in addition to overseeing company operations through Board meetings.

- **Sustainability Development Committee:**

  Composed of 5 Directors, including two Independent Directors and one Labor Director, with an Independent Director serving as the co-convener. Committee members are selected by the Chairman, and their terms are determined by Board resolutions or by the expiration of their directorships. The committee's primary responsibilities include reviewing, supervising, and formulating sustainable development policy directions and annual execution plans, as well as continuously tracking and controlling plan implementation to assess the feasibility and effectiveness of various mechanisms. It also reviews major proposals related to ESG, oversees sustainable information disclosure matters, and handles other related matters assigned by the Board of Directors to ensure the implementation of the company's sustainable development strategies and the effectiveness of its governance. The administrative work of the committee is handled by the Board of Directors (secretariat), and staff work is managed by the Department of Planning, jointly assisting the convener in managing committee operations. The executing units are the respective business departments at the Headquarters, Branches, and Region Engineering Offices, responsible for executing the key annual tasks set by the committee and reporting execution results and related resolutions.

- **Land Transaction and Exchange Review Panel:**

  TWC promulgated the "Guidelines for the Establishment and Review of the Board of Directors' Land Transaction and Exchange Review Panel" and established the panel (currently comprising 2 Independent Directors, 2 Labor Directors, and 1 Director). This panel assists in the preliminary review of cases involving the disposal of company-owned land and proposed land purchases exceeding NT$50 million. Once passed, cases are submitted to the Board of Directors for resolution.

- **Interactive Meetings among Independent Directors, Supervisors, the Auditing Office of the Board, and the Management Team:**

  To strengthen audit and risk management functions, an "Interactive Plan for Independent Directors, Supervisors, the Auditing Office of the Board, and the Management Team" is formulated annually. Independent Directors and Supervisors mutually elect one person as the convener to hold regular interactive meetings with the management team. These meetings facilitate interactive discussions on relevant topics submitted for Board review or major company matters, ensuring a firm grasp of the company's financial reports, internal control systems, other important business operations, and execution status, thereby exerting management and supervisory functions.

- **The operation of the Risk Committee, please see "2.3.2 Risk Management Practice":**

  In 2025, the company held 1 Shareholders' Meeting, 12 Board of Directors Meetings, 3 Sustainability Development Committee Meetings, 6 Land Transaction and Exchange Review Panel Meetings, and 4 Interactive Meetings among Independent Directors, Supervisors, the Auditing Office of the Board, and the Management Team. The resolutions of each meeting and the statements of Directors and Supervisors are recorded in detail, tracked, and regularly reported to the Board of Directors regarding their handling status, effectively enhancing corporate governance performance.

## B. Regulatory Compliance and Internal Control Mechanisms

To implement ethical corporate management, TWC has established robust internal control and review mechanisms, including internal audits and major financial risk controls. TWC's responsible business conduct policy commitments are built on multiple comprehensive frameworks. We strictly comply with government laws and regulations, such as the Company Act, the Government Procurement Act, and the Labor Standards Act, to ensure corporate governance and business conduct compliance. The actual executing units review various management guidelines and regulations to determine if there are any practical difficulties, needs for modernization, or requirements to align with central regulatory amendments during implementation. They are reviewed and revised as needed. After the Legal Affairs Division of the Department of Planning reviews them for appropriateness and ambiguity, the revision process is completed. Furthermore, the revision status of various management guidelines and regulations is regularly compiled and reviewed again in the second quarter of each year and submitted to the Sustainability Development Committee as a report to ensure regulatory compliance and prevent any violations of the law.

## 2.1.3 Corporate Governance Performance Evaluation

TWC has established a comprehensive corporate governance evaluation and tracking mechanism to ensure continuous optimization of its governance effectiveness.

| Responsibility Center Mechanism |
| --- |
| TWC formulates the "Annual Overall Target" for its responsibility centers based on its "Future Business Strategic Objectives." These are submitted to the Chairman for approval and serve as the basis for establishing target systems and measurement indicators at all levels. Measurement indicators are divided into four dimensions: "Financial," "Customer," "Internal Process," and "Learning and Growth." Indicator items include water supply revenue, customer satisfaction, meter reading inspection and water meter business, anti-corruption prevention business, and supervision of procurement execution, ensuring the sound development of both financial and non-financial performance, as well as short-term and long-term performance. |
| **Competent Authority Assessment** |
| The competent authority, the MOEA, reviews factors such as internal and external environmental changes and major policy directions annually. It formulates the implementation guidelines for the performance evaluation of its affiliated enterprises, divided into seven major aspects: "Business Management," "Financial Management," "Production Management," "Planning Management," "Human Resources Management," "Environmental Protection and Industrial Safety," and "Others." Control targets are set, establishing control standards for matters closely related to operational performance and risks, including Water Supply Coverage Rate, water supply stability, lowering the Water Leakage Rate, return on assets, short-term debt-paying ability, industrial safety (occupational disasters, labor safety accidents), and Water Quality Compliance Rate, to improve operational efficiency and reduce operational risks. |
| **Corporate Governance Evaluation** |
| TWC regularly participates in the "Corporate Governance System Evaluation of Enterprises Affiliated with the Ministry of Economic Affairs" every year. The evaluation comprehensively covers six dimensions: the purpose of state-owned enterprises and the role of the government, the market competition environment of state-owned enterprises, fair treatment of Stakeholders, information disclosure, transparency and accountability, Board composition and responsibilities, and sustainable development.<br>In the evaluations of the past three years (2023 to 2025), TWC received an "Excellent" rating for three consecutive years, relying on robust governance mechanisms and outstanding execution performance. According to the 2025 Corporate Governance Evaluation Report, highlights of TWC's corporate governance promotion in 2025 include:<br>• Since 2025, the company has merged the Corporate Governance Committee and the management team's Sustainability Development Committee to form the Sustainability Development Committee, elevating it to a functional committee under the Board of Directors. This demonstrates the company's continuous pursuit of corporate sustainable development and alignment with global trends.<br>• Strengthening the prevention and punishment of administrative misconduct cases, TWC independently developed an "Engineering Construction Photo Recognition and Comparison Program" to assist personnel in reviewing and identifying anomalous patterns, facilitating the discovery of abnormal situations such as forged or altered contract fulfillment photos. |

## 2.1.4 Board of Directors Operations

### A. Board of Directors Governance Structure and Supervisory Mechanism

TWC's highest governance body is the Board of Directors. According to Article 14 of the Articles of Incorporation, there are 15 Directors and 5 Supervisors, operating according to their respective responsibilities to establish a corporate governance structure with a division of labor between decision-making and supervision.

The nomination and selection process for TWC's Board members is handled in accordance with the "Guidelines for the Management of Directors, Supervisors, and Other Important Positions in Public and Private Enterprises and Foundations Appointed by the Ministry of Economic Affairs and Its Affiliated

Agencies," the "Operational Guidelines for the Implementation of the Independent Director System in Enterprises Affiliated with the Ministry of Economic Affairs," Article 35 of the "State-Owned Enterprise Management Act," and the "Procedures for the Election of Directors and Supervisors of Taiwan Water Corporation," and they are elected at the Shareholders' Meeting.

The Board of Directors is chaired by the Chairperson and comprises the President, Labor Directors, Independent Directors, experts, scholars, and representatives of local city and county governments. All members possess the necessary knowledge, experience, skills, and literacy to perform their duties, including professional backgrounds and experience in water utility management, environmental engineering, civil engineering, hydraulic engineering, business administration, international business, marketing management, international trade, economics, information and finance, law, technology, accounting, financial management, public affairs, industrial development, architectural planning, urban planning, social (women's) welfare, gender equality, labor-management communication and coordination, and risk management. This diversity helps enhance decision-making quality and governance effectiveness. Supervisors are independent of the Board of Directors and exercise their supervisory powers in accordance with the law, auditing and supervising the execution of the Board of Directors' and management team's business, strengthening internal governance and check-and-balance mechanisms. Regarding member diversity, there are currently 8 female Directors and Supervisors (5 Directors and 3 Supervisors), contributing to the diversity and completeness of governance decision-making.

TWC's Chairperson is Mr. Chia-Jung Lee, responsible for guiding company policies; the President is Mr. Ting-Lai Lee, responsible for company management and policy execution. The positions of Chairperson and President are not held by the same person, nor by spouses or first-degree relatives. TWC's Board of Directors holds meetings in accordance with its Rules of Procedure, generally meeting once a month to review TWC's operational plans, major proposals, financial planning, operational performance, and discuss important strategic issues.

TWC Directors maintain a high degree of self-discipline. They may not participate in discussions or voting on proposals in which they or the legal entity they represent have a conflict of interest. They must recuse themselves during discussions and voting, and may not exercise voting rights as a proxy for other Directors. If the Chairman is aware that a Director has a reason to recuse but fails to do so, the Chairman shall order their recusal ex officio. Every time a Board meeting is convened, a reminder for Directors to avoid conflicts of interest is clearly stated in the meeting notice. In 2025, one conflict of interest recusal was executed: Director and President Ting-Lai Lee recused himself during the discussion of the performance appraisal table for senior managers and the Chief Auditor for the first half of 2025.

## ▼ Roster of TWC Directors, Independent Directors, and Supervisors' Qualifications

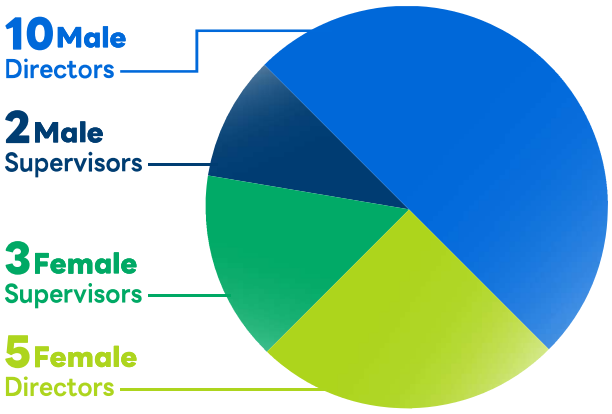
| Title & Name | Gender | Initial (Elected) Appointment Date | Major Professional Experience & Education |
|---|---|---|---|
| **Chairperson Chia-Jung Lee** | Male | 2023/8/1 | • Chairman, TWC<br>• President, Vice President, Chief Engineer, TWC<br>• Manager of First Branch, Manager of Ninth Branch, Director of Department of Public Works, TWC<br>• Master's Degree in Business Administration, National Chiayi University<br>• Master's Degree in Civil Engineering, National Chung Hsing University |

| Title & Name | Gender | Initial (Elected) Appointment Date | Major Professional Experience & Education |
|---|---|---|---|
| **Director Ting-Lai Lee** | Male | 2025/6/20 | • President, TWC<br>• Vice President, Chief Engineer, TWC<br>• Manager of Sixth Branch, Director of Department of Water Loss Management, Director of Department of Water Supply, TWC<br>• Ph.D. in Environmental Engineering, National Yang Ming Chiao Tung University<br>• Master's Degree in Industrial Engineering and Engineering Management, National Tsing Hua University |
| **Union Representative Director Chi-Yuan Lee** | Male | 2023/8/1 | • Engineer, Water Loss Management Section, Sixth Branch, TWC<br>• Engineering Assistant and Subsection Chief, Standing Director of Enterprise Union, Director, Labor-Management Representative, Welfare Committee Member, Occupational Safety Committee Member, Sixth Branch, TWC<br>• Chairman, Sixth Sub-branch<br>• Director and Representative, National Federation of Energy Industry Unions, ROC<br>• Representative, Tainan Federation of Labor<br>• Bachelor's Degree in Business Administration, National Open University |
| **Union Representative Director Ping-Hsiu Lan** | Male | 2025/6/20 | • Technician, General Affairs Office, Second Branch, TWC<br>• Standing Director of Enterprise Union, Director, Member Representative, Chairman of Second Sub-branch, Second Branch, TWC<br>• Member Representative, Taiwan Confederation of Trade Unions<br>• Master's Degree in Civil Engineering and Spatial Informatics, Chien Hsin University of Science and Technology |
| **Union Representative Director Yu-Han Tan** | Male | 2025/6/20 | • Technician, Fourth Section, Central Region Engineering Office, TWC<br>• Director of Central Enterprise Union, Member Representative, Director of Central Engineering Office Sub-branch, Labor-Management Representative, TWC<br>• Master's Degree in Bioresources, Da-Yeh University |
| **Director Yi-Feng Wang** | Male | 2016/12/20 | • Deputy Director-General, Water Resources Agency, MOEA<br>• Chief Secretary, Director of Conservation Projects Division, Director of Water Hazard Mitigation Center, Water Resources Agency, MOEA<br>• Ph.D. in Civil Engineering, National Taiwan University |
| **Director Chia-Ying Wu** | Female | 2022/9/13 | • Deputy Director General, Intellectual Property Office, MOEA<br>• Deputy Director General, Small and Medium Enterprise and Startup Administration, MOEA<br>• Counselor, Minister's Office, MOEA \| Director, Patent Division II, Intellectual Property Office, MOEA<br>• Master's Degree in Biochemical Sciences, National Taiwan University |
| **Director Wan-Chin Chiu** | Male | 2022/5/4 | • Senior Specialist, State-Owned Enterprise Management Agency, MOEA<br>• Director, Deputy Director, Inspector, Section Chief, State-Owned Enterprise Commission, MOEA<br>• Master's Degree in Land Economics, National Chengchi University<br>• Bachelor's Degree in Law, Soochow University |

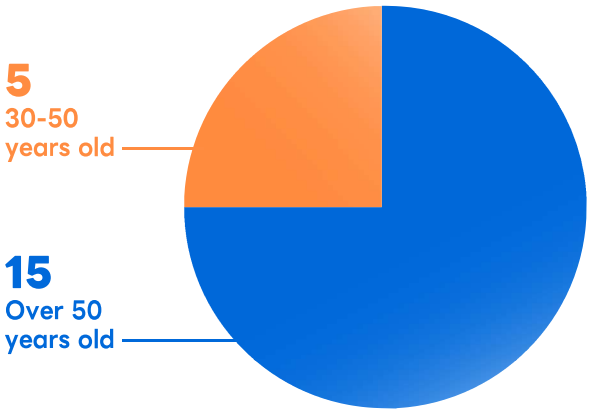
| Title & Name | Gender | Initial (Elected) Appointment Date | Major Professional Experience & Education |
|---|---|---|---|
| **Director Hsiu-I Ting** | Female | 2021/7/30 | • Professor, Department of Information and Finance Management, National Taipei University of Technology<br>• Associate Professor, Department of Information and Finance Management, National Taipei University of Technology<br>• Professor, Department of Finance, National Kaohsiung University of Science and Technology<br>• Ph.D. in Business Administration, National Chengchi University |
| **Director Jui-Hun Chang** | Female | 2023/8/1 | • Director-General, Environmental Protection Bureau, Kaohsiung City Government<br>• Deputy Director-General, Environmental Protection Bureau; Deputy Director-General, Narcotics Bureau; Chief Secretary, Kaohsiung City Government<br>• Master's Degree in Safety Health and Environmental Engineering, National Kaohsiung University of Science and Technology<br>• Graduate Institute of Adult Education, National Kaohsiung Normal University |
| **Director Pen Fang** | Female | 2025/6/20 | • Counselor, Tainan City Government<br>• Counselor, Directorate-General of Budget, Accounting and Statistics, Executive Yuan<br>• Director-General, Deputy Director-General, Department of Budget, Accounting and Statistics, Tainan City Government (Post-merger)<br>• Director-General, Deputy Director-General, Section Chief, Department of Budget, Accounting and Statistics, Tainan County Government<br>• Master's Degree in Political Science, National Chung Cheng University |
| **Director Li-Li Chiu** | Female | 2024/8/23 | • Deputy Magistrate, Miaoli County Government<br>• Chief Executive Officer, Office of Legislator Chen Chao-Ming<br>• Associate Degree in International Trade, Dahan Institute of Technology |
| **Director Kuo-Jung Huang** | Male | 2023/1/31 | • Deputy Magistrate, Pingtung County Government<br>• Director-General, Research and Evaluation Department, Pingtung County Government<br>• Director-General, Secretary, Department of Agriculture<br>• Master's Degree in Marketing Communications Management, National Sun Yat-sen University |
| **Independent Director Che-Shih Ting** | Male | 2025/6/20 | • Professor Emeritus, National Pingtung University of Science and Technology<br>• Distinguished Research Fellow, Research Center, National Pingtung University of Science and Technology<br>• Chairman, Taiwan Construction Research Institute<br>• Chairman, National Feng-Shan Senior High School Cultural and Educational Foundation<br>• Distinguished Professor and Dean of College of Engineering, Chair of Civil Engineering Department, Professor, Associate Professor, National Pingtung University of Science and Technology<br>• Distinguished Visiting Professor, The University of Tokyo, Japan<br>• Visiting Scholar, KU Leuven, Belgium<br>• Lecturer, Department of Civil Engineering, National Pingtung Polytechnic Institute<br>• Engineer, Engineering Division, Cross-Harbor Tunnel Construction Office, Kaohsiung Harbor Bureau<br>• Master's Degree in Hydraulic Engineering, IHE Delft Institute for Water Education, Netherlands<br>• Ph.D. in Hydrogeology, Vrije Universiteit Amsterdam, Netherlands |

| Title & Name | Gender | Initial (Elected) Appointment Date | Major Professional Experience & Education |
|---|---|---|---|
| **Independent Director Shun-Hao Chang** | Male | 2025/6/20 | • Managing Attorney, Helli Law Firm<br>• Employed Attorney, Anxin Law Firm<br>• Legal Advisor, Changhua County and Nantou County Land Registration Agent Associations<br>• Legal Advisor, National Federation of Certified Public Bookkeepers Association of the R.O.C.<br>• Master's Degree in Financial and Economic Law, National Chung Cheng University |
| **Supervisor Feng-Yuan Chang** | Male | 2025/6/20 | • Director-General, Economic Development Bureau, Taichung City Government<br>• Advisor, New Taipei City Government<br>• Director-General, Economic Development Department, New Taipei City Government<br>• Senior Specialist, MOEA<br>• Chief Secretary, Economic Development Department, New Taipei City Government<br>• Visiting Scholar, Department of Chemical Engineering, Princeton University, USA<br>• Ph.D. in Chemical Engineering, National Taiwan University |
| **Supervisor Ching-Pin Chiu** | Male | 2019/1/22 | • Secretary-General, New Taipei City Government<br>• Deputy Secretary-General, New Taipei City Government; Director-General, Deputy Director-General, Chief Secretary, Senior Specialist, Urban and Rural Development Department, New Taipei City Government<br>• Ph.D. in Urban Planning, National Taipei University<br>• Master's Degree in Urban Planning, National Chung Hsing University |
| **Supervisor Ming-Hung Chou** | Female | 2025/6/20 | • Counselor, Yunlin County Government<br>• Director-General, Senior Secretary, Deputy Director-General, General Affairs Department; Section Chief of Labor Welfare Section, Section Chief of Labor-Management Relations Section, Labor Affairs Department, Yunlin County Government<br>• Adjunct Lecturer, Department of Business Administration, National Formosa University<br>• Master's Degree in Political Science, National Chung Cheng University |
| **Supervisor Hsiu-Ying Hsiao** | Female | 2021/7/30 | • Director-General, Department of Budget, Accounting and Statistics, Changhua County Government<br>• Senior Specialist, Section Chief, Specialist, Officer, Directorate-General of Budget, Accounting and Statistics, Executive Yuan<br>• Officer, Department of Budget, Accounting and Statistics, Taiwan Provincial Government<br>• Member, Criminal Investigation Corps, Taiwan Provincial Police Administration<br>• Assistant, Accounting Office, Mingjian Township Office, Nantou County<br>• Department of Accounting and Statistics, National Taichung Institute of Commerce |
| **Supervisor Liang-Chu Li** | Female | 2021/7/30 | • Director-General, Finance Department, Nantou County Government<br>• Director of Nantou Office, Central Region Branch<br>• Director of Taoyuan City Office, Northern Region Branch<br>• Section Chief, Central Region Branch, National Property Administration<br>• Master's Degree in Public Affairs, Tunghai University |

### ▼ TWC 2025 Board of Directors Gender Diversity Chart




### ▼ TWC 2025 Board of Directors Age Structure Distribution Chart




## B. Director and Supervisor Training

In accordance with the "Corporate Governance Best Practice Principles of Taiwan Water Corporation" and with reference to the "Directions for the Implementation of Continuing Education for Directors and Supervisors of TWSE/TPEx Listed Companies," TWC regularly plans and conducts continuing education courses on corporate governance-related topics for Directors and Supervisors (including newly appointed ones). TWC also plans diverse courses related to corporate operations and sustainable development for the Board of Directors, ensuring they continuously improve their professional knowledge and skills. This strengthens the Board's leadership and decision-making capabilities and fulfills their duty of loyalty and care as good administrators. Based on the Directors' educational backgrounds and professional expertise, information on relevant units and training courses is provided to facilitate members' enrollment. In 2025, all TWC Directors met the statutory training standards, with total training hours reaching 188 hours and an average of 9.4 hours per person. Through external training, they are expected to grasp international trends, enhance diverse perspectives, and bring higher competitiveness to the company in a constantly changing business environment. The implementation of continuing education is as follows:

### ▼ Overview of TWC Board of Directors Training

| Course Name | Organizer | Number of Participating Directors | Hours | Training Content |
|---|---|---|---|---|
| **How AI Enhances Operational Efficiency and Service Quality & AI Transformation Case Sharing** | Taipei Foundation of Finance | 16 | 3 | Exploring AI applications in enterprise operations, service processes, and decision-making support, along with practical AI transformation cases. |
| **Understanding Financial Statements and Managing Risks: A Financial Governance Course for Directors and Supervisors** | Taipei Foundation of Finance | 17 | 3 | Strengthening Directors' ability to interpret financial statements, enhancing corporate risk control, and improving financial governance oversight. |

| Course Name | Organizer | Number of Participating Directors | Hours | Training Content |
|---|---|---|---|---|
| **Mastering ESG in One Hour: Corporate Sustainability Starter Course** | Taipei Foundation of Finance | 9 | 1 | Understanding core ESG concepts, Net Zero Emissions, and sustainable development trends. |
| **Sustainable Finance** | Taipei Foundation of Finance | 2 | 3 | Exploring sustainable finance policy directions, financial instruments, and market development trends. |
| **2025 Labor Education Promotion Seminar – Union and Labor Director Activities** | Ministry of Labor | 3 | 9 | Strengthening understanding of labor laws, labor-management relations, and the Labor Director system. |
| **Board of Directors Performance Evaluation** | Securities and Futures Institute | 1 | 3 | Explaining methods for evaluating Board operational efficiency and corporate governance practices. |

In addition to the core training courses mentioned above, TWC Directors also participate continuously in diverse continuing education activities based on their professional backgrounds and duty requirements to strengthen the Board's overall professional capabilities. Training topics cover areas such as digital transformation and AI applications, financial analysis and investment decision-making, sustainable finance, carbon pricing, regulatory compliance, and internal control. In the digital and AI domains, some Directors attended courses on generative AI business applications, digital governance, and enterprise risk management, continually tracking the impact of emerging technologies on corporate operations and risk management. In finance and investment, Directors deepened their professional judgment on corporate management and financial governance through courses on financial statement analysis, corporate financial decision-making, and innovative investments. Additionally, Directors participated in professional seminars and forums on sustainable finance, green finance, climate change, and carbon pricing, as well as regulatory compliance courses on preventing insider trading and the risk of financial misreporting, ensuring the Board has sufficient capabilities for governance, supervision, and sustainable decision-making.

### C. Board of Directors Performance Evaluation

TWC conducts annual evaluations in accordance with the "Regulations on the Performance Evaluation of State-Owned Enterprises," while the evaluation of other Independent Directors, Directors, and Supervisors is conducted in accordance with the "Guidelines for the Management of Directors, Supervisors, and Other Important Positions in Public and Private Enterprises and Foundations Appointed by the Ministry of Economic Affairs and Its Affiliated Agencies." To implement corporate governance and enhance the functions and operational efficiency of TWC's Board of Directors and functional committees, the "Directions for the Performance Evaluation of the Board of Directors of Taiwan Water Corporation" were formulated. A performance evaluation process is conducted regularly each year. The corporate governance handling unit distributes self-assessment questionnaires for the performance evaluation of the Board and functional committees. The collected data is compiled, and the evaluation results are recorded, reported to the Sustainability Development Committee for discussion, and then submitted to the Board of Directors meeting in the following month:

- **Board of Directors Performance Evaluation Self-Assessment Questionnaire:**

  Evaluates the degree of participation in corporate operations, improvement of Board decision-making quality, Board composition and structure, election and continuing education of Directors, and internal control. The evaluation includes 5 major dimensions and a total of 26 indicators, with a maximum score of 5 points. The overall average score for the 2025 evaluation was 4.93.

- **Sustainability Development Committee Performance Evaluation Self-Assessment Questionnaire:**

  Evaluates the degree of participation in corporate operations, improvement of Committee decision-making quality, Committee composition and structure, election and continuing education of Committee members, and internal control. The evaluation includes 5 major dimensions and a total of 20 indicators, with a maximum score of 5 points. The overall average score for the 2025 evaluation was a perfect 5 points.

- **Board of Directors' Land Transaction and Exchange Review Panel Performance Evaluation Self-Assessment Questionnaire:**

  Evaluates the degree of participation in corporate operations, improvement of the Panel's decision-making quality, Panel composition, structure and election, and internal control. The evaluation includes 4 major dimensions and a total of 12 indicators, with a maximum score of 5 points. The overall average score for the 2025 evaluation was a perfect 5 points.

**Corporate Governance Information Transparency Section**

| Complete "Corporate Governance Best Practice Principles" | "Board of Directors Performance Evaluation Report" Annual Evaluation | "Board Members and Operations Information" Section | "Supervisor's Mailbox" disclosed in the Corporate Governance Section | "Public Opinion Mailbox" platform for public engagement |
|---|---|---|---|---|

## 2.1.5 Anti-corruption

TWC is committed to promoting various anti-corruption measures to reduce instances of corruption and establish a fair competitive environment, preventing contractors from securing long-term contracts through improper relationships, which excludes high-quality competitors and leads to the waste or improper use of public resources. Therefore, TWC actively promotes integrity advocacy and education and training to deepen employees' understanding and compliance awareness of integrity regulations. Simultaneously, it establishes unobstructed reporting channels to ensure any inappropriate behavior can be promptly discovered and handled. We proactively prevent risks and strengthen internal control and risk management to ensure the integrity and transparency of corporate operations. The following are the major action areas of the company's anti-corruption measures:

### A Prevention and Risk Management

The Department of Civil Service Ethics at TWC continues to supervise affiliated ethics units to strengthen integrity advocacy, reinforce the accuracy of unit supervisors' appraisals of their subordinates, hold regular

integrity meetings, and conduct integrity risk assessments to grasp dynamic data on events that may involve integrity risks and prevent such cases from recurring. In 2025, integrity risk assessments were completed for TWC's Headquarters and its 16 branch (engineering) offices, achieving a 100% completion rate. The risk assessment is divided into "event" and "personnel" pattern analyses. Significant integrity risks discovered include: leaking official secrets in procurement, false acceptance inspections, document forgery, and poor integrity. The analysis results and responsive plans are described in the table below.

### ▼ Risk Event and Personnel Pattern Analysis

| Risk Event Pattern Analysis | Risk Personnel Pattern Analysis |
|---|---|
| In 2025, 59 risk events were identified, including 3 high-risk events (5%), 22 medium-risk events (37%), and 34 low-risk events (58%). Based on the risk event pattern analysis, engineering projects were the most common, followed by labor procurement. Responsive actions taken include continuously gathering intelligence and implementing inspection measures such as procurement supervision (co-handling) and ad hoc procurement audits to reduce the probability of risk events and maintain the company's integrity governance effectiveness. | Regarding the risk personnel pattern analysis in 2025, the main issues were operational abnormalities and poor integrity. Responsive actions taken primarily focus on strengthening appraisals and pursuing administrative responsibilities. |

## B. Anti-corruption Training and System Establishment

TWC's relevant anti-corruption plans and institutional norms are as follows:

- **Integrity Education and Training:**

  > Integrity education and training are conducted to strengthen employees' anti-corruption awareness. During the training, post-course questionnaires and tests are used to understand participants' satisfaction with the courses and their absorption of the content, facilitating the refinement of future course content and strengthening advocacy on parts that are difficult for company personnel to understand.

- **Formulation of Ethical Standards and Codes of Conduct:**

  > To guide the behavior of TWC's Board members, management, and general employees in accordance with ethical standards, and to help the company's Stakeholders better understand the company's ethical standards for sound corporate governance, TWC has established "Ethical Standards and Codes of Conduct." These encompass principles of integrity, transparency, and fair trade, the prevention of conflicts of interest and avoiding opportunities for personal gain, confidentiality obligations, the protection and proper use of company assets, compliance with laws and regulations, and the prohibition of gifts, bribery, or improper benefits. This emphasizes the importance of integrity, guides correct values, and builds a high-quality corporate culture.

- **Implementation of Integrity and Ethics Guidelines:**

  > Continuously advocate for employees to comply with integrity-related regulations[11], which are announced on the electronic regulations inquiry system of TWC's global website. Every employee can access it online to understand behavioral norms and reward and punishment regulations. Managers at all levels are held responsible for urging their subordinates to strictly comply, hoping to foster a positive atmosphere and shape a corporate culture that promotes good and eliminates evil, taking preventive measures.

[11] "Guidelines for Employee-Vendor Interactions", "Code of Integrity and Ethics for Employees", "Procedures for Handling the Receipt of Gifts and Property", "Procedures for Handling Lobbying and Influence Peddling" and "Procedures for Handling Dining and Entertainment Events"

- **Whistleblower Protection Mechanism:**

  To perfect the whistleblower channels for employees and provide relevant protection measures and rights for safe whistleblowing, the company formulated the "Taiwan Water Corporation Whistleblower Protection Operational Guidelines" (Whistleblower Protection System). It explicitly defines the scope, procedures, and protection of whistleblowers' rights, encouraging the courageous reporting of malfeasance and assisting in combating illegal activities, while also helping to protect whistleblowers' employment rights from infringement and their lives from disruption. Reported cases are handled by designated personnel appointed by each unit in accordance with the provisions of the "Taiwan Water Corporation Guidelines for Implementing the Confidentiality of Informants' Identities.".

- **Diverse Public Whistleblowing Channels and Reporting Mechanisms:**

  To effectively combat corruption and illegalities, TWC has established diverse reporting channels, including designated contact windows, telephone hotlines, and mailboxes. If employees are involved in corruption or related illegalities, reports can be made to the respective ethics units.

### ▼ 4 TWC 2025 Education and Training Results

| 2025 Executed Items | Number of Sessions | Total Participants |
|---|---|---|
| Integrity Advocacy Courses | 35 | 2,006 |
| Ad hoc Integrity Advocacy for New Hires | 13 | 639 |
| Social Engagement Advocacy | 18 | 2,991 |
| Public Interest Whistleblower Protection Briefings | 22 | 1,235 |
| **Total** | **88** | **6,861** |

## C. Monitoring Execution and Subsequent Review

To implement regular or irregular audit systems, effectively supervise management, establish sound internal control mechanisms, and achieve the function of preventing operational malfeasance, TWC's Department of Civil Service Ethics conducts ad hoc audits every year on key core businesses, businesses related to public livelihood, or businesses prone to risks, and requests relevant business units to provide professional assistance appropriately. In 2025, through the handling of two cases, namely "Special Audit of Small-Scale Labor and Engineering Procurement Cases" and "National Special Audit of High-Risk Government Procurement Cases", and one case of "New Installation Project for Tap Water Users", on-site spot checks were conducted on Taiwan Water Corporation's subsidiaries to urge them to improve administrative efficiency and effectively achieve the company's integrity and efficiency goals.

In 2025, a total of 83 cases were registered through TWC's integrity reporting hotline, fax, and reporting mailbox appeal mechanisms (case sources were "accepted reports" and "others"). After investigation, administrative responsibility was pursued in 25 cases, and administrative handling was conducted in 58 cases, all of which were immediately transferred to the business units for explanation or processing. Among the employees, zero received major demerits, 2 received demerits, 10 received reprimands, and 13 received other penalties. In addition, 3 contractors had their contract awards

revoked, terminated, or rescinded; 10 contractors were published in the Government Procurement Gazette in accordance with Article 101 of the Government Procurement Act; and 28 contractors were penalized according to their contracts.

In 2025, a technician at the Tamsui Operations Office of TWC's First Branch was suspected of soliciting bribes from a contractor's person in charge and accepting kickbacks. The prosecutor has indicted the case, and it is currently under trial in court. Following TWC's administrative investigation, the administrative responsibilities of the personnel involved and their supervisors were reviewed and pursued. Subsequently, both the branch and TWC plan to conduct integrity and legal discipline education and training to establish correct legal concepts and integrity awareness among supervisory personnel, ensuring they understand the appropriate boundaries of interaction with contractors.

To facilitate the formulation of follow-up review measures, TWC regularly convenes integrity meetings and integrity work review meetings to comprehensively review the implementation status of integrity work. The company sets target values for anti-corruption advocacy annually through the "Table of Scored Items for Monitored Anti-Corruption Operations" and requires all affiliated ethics units to report their execution results. Currently, all progress is on track with no delays. In addition, in 2025, the implementation status and achievement of anti-corruption prevention operations and integrity risk management will be incorporated into the responsibility center assessment items.

In 2025, TWC and its affiliated units convened a total of 17 integrity meetings, all chaired by the head of the organization, to review and revise various operational anti-malfeasance measures. During these meetings, 33 ad hoc reports on proposed anti-malfeasance measures were presented, 52 proposals were discussed, and 2 extempore motions were raised. The related discussions included: conveying higher-level integrity laws and policies, and through thematic reports and proposal discussions, jointly studying and formulating preventive measures for potential deficiencies or risks, and ad hoc reports on the Whistleblower Protection Act for Public Interest, to thoroughly implement clean politics, rectify institutional discipline, and enhance administrative efficiency.

**Anti-corruption Information Transparency Section**

Complete TWC "Integrity and Ethics Guidelines"

## 2.1.6 Penalty Records

In 2025, TWC recorded 6 instances of paying fines of NT$100,000 or more, totaling NT$1,632,500. Regarding these cases, TWC has actively completed improvements and implemented preventive measures. In addition, in 2025, TWC had no significant incidents of non-compliance concerning product and service information and labeling, marketing communications, or related voluntary codes.[12]

[12] The definition of major fines for Taiwan Water Corporation (TWC) is based on Article 4, Chapter II (Material Information) of the 'Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities,' which mandates disclosure when the accumulated fine for a single event reaches NT$1 million or more.

## ▼ Summary of TWC 2025 Administrative Fines

| Unit | Fine Amount (NT$) | Description of Fine | Subsequent Improvement Measures |
|---|---|---|---|
| **Seventh Branch** | 120,000 | Water supply total coliform count non-compliance at No. 9, Zhuangjing Rd. and No. 90, Dafeng 1st Rd., Sanmin Dist., Kaohsiung City, violating the Drinking Water Management Act. | • Strengthen education and training for water quality personnel, and pay attention to and record the Environmental Protection Bureau's (EPB) microbiological sampling process.<br>• TWC's concurrent testing met standards.<br>• Outsourced re-testing results all met drinking water quality standards.<br>• Strengthen communication with the EPB regarding various operations, including pre-sampling contact, cold storage and preservation of bacteria, exclusion of external interference during sampling, and appropriate photo and video documentation. |
| **Seventh Branch** | 120,000 | Total coliform count at water supply points at Fengshan Water Treatment Plant, No. 217, Xiaogang Rd., Xiaogang Dist., and No. 101-1, Kangding Rd., Qianzhen Dist., Kaohsiung City, violating the Drinking Water Management Act. | • The EPB commissioned an environmental testing institution to test TWC's water distribution points. The total coliform count exceeded the drinking water quality standard, suspected to be due to flaws in sampling and testing quality.<br>• TWC's re-testing met standards.<br>• Strengthen the sampling training of personnel accompanying the sampling and maintain good communication with the EPB; in addition, strengthen water quality testing in the water supply area the day before joint sampling, perform necessary drainage operations based on water quality conditions, or coordinate with the main water supply plant to ensure stable water quality that meets relevant standards. |
| **Tenth Branch** | 480,000 | Clear water turbidity and manganese at Green Island Water Treatment Plant violated the Drinking Water Management Act. | • Both TWC and the EPB's re-testing met water quality standards.<br>• After on-site inspection, relevant water quality improvement strategies and action plan control tables were drafted. The Green Island plant was requested to carry out equipment improvements, supervised by the Department of Water Quality and the Department of Water Supply, which were completed before March 2026. |
| **Southern Region Engineering Office** | 100,000 | Construction project violated Article 23, Paragraph 2 of the Air Pollution Control Act. | • The "Donggang River to Fengshan Reservoir Xinyuan Section Water Aqueduct Engineering (III)" project was not constructed in accordance with the "Management Regulations for Construction Project Air Pollution Control Facilities," including: the construction site perimeter was not executed according to the approved alternative (washing adjacent roads with water trucks); soil piles were not fully covered with dust nets; vehicle paths were not executed according to the approved alternative (compacting and sprinkling water to suppress dust from the construction site to the main road); and construction vehicles leaving the site at the entrance/exit did not thoroughly wash their tires, resulting in mud being carried out. |

| Unit | Fine Amount (NT$) | Description of Fine | Subsequent Improvement Measures |
|---|---|---|---|
| | | | • Subsequently, strengthen advocacy to urge construction contractors to implement relevant regulations strictly to prevent similar incidents from recurring. |
| **Danan Water Supply Plant, Second Branch** | 640,000 | Rainwater discharge water quality violated Article 28, Paragraph 1 of the Water Pollution Control Act. | • A large amount of gray-muddy wastewater was discharged at the rainwater outfall. Investigation revealed that the water pump of the second-stage sludge thickening tank of the wastewater treatment facility failed to start, causing the wastewater not to be pumped to the temporary sludge storage tank. Instead, it overflowed directly to the plant perimeter and the internal rainwater drainage ditch, then flowed continuously to the rainwater outfall into the Jiadong River. The Danan Plant's emergency response measures were insufficient, resulting in the leakage of gray-muddy wastewater into the Jiadong River.<br>• To prevent sludge overflow from recurring, the Danan Plant completed the repair of the faulty sludge pump in July 2025. Key subsequent improvements include: establishing an early warning mechanism, purchasing liquid level gauges, and installing a real-time alarm system connected to the control room, expected to be installed successively in 2026. This technical approach further reduces pollution risks by strengthening hardware redundancy and alarm monitoring protection. |
| **Shangyi Construction Co., Ltd. - Houli First Water Treatment Plant New Construction Project, Northern Liyutan Second Raw Water Pipe and Southern Dajia River Transmission Pipe Engineering (Combined Bidding)** | 172,500 | Construction project violated Article 23, Paragraph 2 of the Air Pollution Control Act. | • The content of the construction site signboard did not specify or only partially specified the site information; material stacking did not adopt one of the required facilities such as covering with dust cloths, dust nets, or spraying chemical stabilizers; the pavement of the vehicle path within the construction site or from the washing facility to the main road was not washed, affecting the control effect; the dust cloths, dust nets, or straw (mats) covering the exposed ground surface were damaged, ruined, or missing, affecting the control effect; vehicles leaving the construction site did not effectively wash their bodies and tires, with sludge attached to their surfaces or causing a color difference on the road surface at the site entrance/exit and its extended road; local exhaust systems or pressurized water spraying facilities were not installed for dust-scattering operations within the construction site.<br>• Subsequently, strengthen advocacy to urge construction contractors to implement relevant regulations strictly to prevent similar incidents from recurring. |

# 2.2 Operational Performance and Outlook

Operational performance is the foundation of corporate sustainability. Currently, TWC will actively review the rationality of water rates and refine adjustment methods, such as tiered water rate structures and subsidy mechanisms, while actively communicating with competent authorities and the public to optimize operational performance. In accordance with regulations such as the Budget Act for State-Owned Enterprises, balancing the needs of the people, the economy, and the rationalization of water rates to overcome operational difficulties and improve the financial structure is a critical issue for TWC's sustainable development. We adhere to a pragmatic attitude, carefully evaluate, and seek opportunities for diversification in advantageous markets

## 2.2.1 Operational Performance

In the 2025 fiscal year, TWC's net loss upon final accounting was NT$5,100,152,000. Compared to the budgeted net loss of NT$5,931,545,000, the loss decreased by NT$831,393,000. This was mainly due to an increase in water supply revenue and government subsidy income, which, after offsetting increases in power costs and machinery and equipment maintenance costs, still resulted in an overall increase over the budget. In 2025, the MOEA's investment and subsidies for TWC's fixed-asset construction plan amounted to NT$9,957,056,000 and NT$26,800,000, respectively, while subsidies from county and city governments totalled NT$1,728,736,000. Detailed financial performance is shown in Table below.

TWC complies with relevant tax laws and regulations, files its corporate income tax returns by the deadline, and does not establish overseas tax-avoidance entities. The company also publishes its annual budgets and final accounts on the corporate website, conducting transparent and accountable tax disclosure and reporting to publicly present the company's operational status in pursuit of sustainable corporate development.

### ▼ TWC Financial Budget and Final Accounts

| Item | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| Operating Revenue | 31,016,321 | 32,096,203 | 31,870,408 | 32,841,427 | 34,386,152 |
| Non-Operating Revenue | 524,824 | 871,226 | 635,691 | 1,288,523 | 733,756 |
| Total Revenue | 31,541,145 | 32,967,429 | 32,506,099 | 34,129,950 | 35,119,908 |
| Operating Costs | 26,830,247 | 27,501,999 | 29,939,949 | 31,827,166 | 33,257,739 |
| Operating Expenses | 3,520,980 | 3,652,095 | 3,696,213 | 3,890,720 | 4,056,719 |
| Non-Operating Expenses | 2,628,894 | 1,661,456 | 3,134,088 | 2,620,047 | 2,778,952 |

| Item | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| Income Tax Expense (Benefit) | -200,128 | 80,649 | 23,668 | -233,706 | 126,650 |
| Total Expenditures | 32,779,993 | 32,896,199 | 36,793,918 | 38,104,227 | 40,220,060 |
| Net Income (Loss) | -1,238,848 | 71,230 | -4,287,819 | -3,974,277 | -5,100,152 |
| Personnel Expenses | 6,254,600 | 6,433,360 | 6,473,231 | 6,675,764 | 6,926,502 |
| Payments to Government (including income tax, fines, taxes paid to the government) | 452,439 | 541,661 | 441,958 | 336,651 | 496,937 |
| Social Public Interest and Community Relations Expenses | 77,295 | 77,846 | 103,705 | 78,529 | 114,131 (includes capital expenditure 25,594) |
| **Earnings Before Tax, EBT** | **-1,438,976** | **151,879** | **-4,264,151** | **-4,207,983** | **-4,973,502** |

Note:
1. Unit: NT$ thousands
2. The presentation principles for the final accounts of each year are as follows: 2021-2024 figures are audited final accounts; the 2025 figures have not yet been audited by the National Audit Office, so self-compiled final accounts are reported

To optimize financial performance, TWC carefully plans cost controls for each year to keep costs and expenditures within a reasonable range. In response to rising debt year by year, the company continues to seek diverse financing channels for fund utilization and control, such as conducting credit ratings to issue commercial paper. We also continue to promote measures to increase revenue and reduce expenditures, and strengthen the financial analysis of fixed asset investments to save interest expenses.

In terms of revenue generation, TWC continues to strengthen the management of idle and underutilized land to enhance utilization efficiency. Quarterly meetings chaired by the Vice President are held to review the progress of tracked cases. The asset activation strategy involves leasing or selling properties that hold no operational or economic value for retention. In 2025, 371 lease cases were completed, generating rental income of NT$102,860,000; additionally, three real estate disposal cases were completed, yielding a disposal gain of NT$113,160,000. In alignment with the national energy transition policy, TWC also conducts land inventories for public tendering, commissioning vendors to develop solar and small hydropower projects while collecting power generation rebate fees. In 2025, solar power rebate revenue amounted to approximately NT$105,440,000, and small hydropower rebate revenue was about NT$2,340,000.

## ▼ Explanation of Financial Resources Obtained from the Government

| Investment Items | |
|---|---|
| **Project Name** | **MOEA investment (NT$)** |
| Improvement Plan for Pressurized Water Receiving Equipment for Older High-Altitude Community Users (2021-2024) | 11,127,940 |
| Daan and Dajia River Interconnection Pipeline Project | 1,542,364,000 |
| Taichung to Yunlin Regional Water Transfer Pipeline Improvement Project | 57,500,000 |
| Second Phase of Hyporheic Water Development Project | 58,000,000 |
| Shimen Reservoir to Hsinchu Interconnection Pipeline Project | 11,273,190 |
| Second Phase of Water Supply Improvement Plan for Outlying Islands | 7,973,364 |
| Tainan Shan-Shang Water Treatment Plant Water Supply System Improvement Project | 634,003,271 |
| Backup Pipeline Project | 3,673,805,629 |
| Strengthening Flatland Artificial Lakes and Hyporheic Water Promotion Project - Wuxi Phase II & Drought Resilience 2.0 Enhancement and Improvement | 402,971,210 |
| Fourth Phase of Water Supply Improvement Plan for Areas Without Tap Water - Tap Water Extension Pipeline Project | 343,283,386 |
| Sanchong and Luzhou Regional Water Supply Network Improvement Project (Phase I) | 7,500,000 |
| Leakage Rate Reduction Plan (2025-2032) | 2,000,000,000 |
| Second Phase of Improvement Plan for Pressurized Water Receiving Equipment for Older High-Altitude Community Users (2025-2028) | 5,000,000 |
| Fifth Phase of Water Supply Improvement Plan for Areas Without Tap Water - Tap Water Extension Pipeline Project | 1,184,049,885 |
| General Construction and Equipment Plan | 18,203,737 |
| **Total Investment Items** | **9,957,055,612** |
| **Subsidy Items** | |
| **Project Name** | **MOEA Subsidy Amount (NT$)** |
| 0918 Earthquake Hualien and Taitung Areas Tap Water Extension Engineering - Hualien and Taitung Areas Sustainable Development Fund Subsidy | 2,429,767 |
| Fifth Phase of Water Supply Improvement Plan for Areas Without Tap Water - Tap Water Extension Pipeline Project | 21,428,027 |
| General Construction and Equipment Plan | 2,942,704 |
| | **Subsidies from County and City Governments (NT$)** |
| General Construction and Equipment Plan | 1,728,735,717 |
| **Total Subsidy Items** | **1,755,536,215** |

## 2.2.2 Operational Financial Impacts from Natural Disasters

Taiwan is impacted by natural disasters such as typhoons, earthquakes, and droughts every year. The year 2025 was exceptionally challenging, with disasters including the Chiayi Earthquake, Typhoon Danas, and the Matai'an River overflow continuously testing TWC' s disaster response, resource dispatching capabilities, and financial resilience. In 2025, emergency repair expenses for major property and disaster losses amounted to NT$74,097,000, while the budget for the reconstruction and restoration of water supply equipment was NT$14,871,000, bringing the total expenditure to NT$88,968,000.

**Operational Performance Information Transparency Section**

Complete TWC "Budget and Final Accounts"

### ▼ TWC Annual Major Natural Disaster Impacts and Responses

| Time | Disaster Name | Affected Areas | Disaster Overview and Damage | TWC Response |
|---|---|---|---|---|
| **January** | **Chiayi Earthquake** | Chiayi, Yunlin, Tainan | A magnitude 6.4 strong earthquake caused multiple ruptures in old pipe networks. Some areas experienced brief water outages due to power interruptions. | Mobilized the "Leak Detection Team" and repair contractors within 24 hours of the earthquake, and set up temporary water supply stations for the public to fetch water. |
| **July** | **Typhoon Danas and Southwest Monsoon** | Nationwide (Mainly Central and Southern) | Landfall in Budai, Chiayi. Heavy rainfall caused record-breaking accumulated rainfall in Tainan and Kaohsiung, leading to a surge in raw water turbidity. | Prepared in advance for high raw water turbidity and power generators. After the disaster, utilized hyporheic flow and backup water to largely maintain stable water supply nationwide. |
| **July-August** | **Typhoon Wipha and Southwest Monsoon** | Nationwide, Eastern | Caused a barrier lake to form in Matai'an River, Hualien; continuous heavy rain in central and southern regions caused multiple floods. | |
| **September** | **Typhoon Hagibis** | Hualien, Taitung | The most severe disaster of the year. Caused the breach of the Matai'an River barrier lake. | Established a forward command post and invested in disaster relief and recovery with partner contractors to repair the Guangfu Water Treatment Plant. Emergency installation of water pumps to increase water supply, coordinated with Taiwan Sugar Corporation for well water support, and dispatched water trucks to provide temporary water supply. Provided water bill reductions and exemptions for victims. |

| Time | Disaster Name | Affected Areas | Disaster Overview and Damage | TWC Response |
|---|---|---|---|---|
| **November** | **Typhoon Fung-Wong** | Eastern, Yilan | The combined effect of the strong autumn typhoon's outer circulation and the northeast monsoon caused indigenous villages such as Mingli Village in Hualien to be hit again. | Prepared water purification chemicals and water purification equipment cleaning operations in response to high raw water turbidity. Assisted in disaster relief and temporary water supply after the disaster. |

TWC formulated the disaster prevention and rescue business plan and related operational guidelines in accordance with disaster prevention laws and regulations to improve the disaster prevention and rescue system. It strengthens normal disaster prevention, emergency response measures during disasters, and post-disaster recovery and reconstruction work. Existing equipment is not insured against natural disasters. TWC will continue to appropriately revise disaster prevention and rescue-related plans and operational guidelines based on past or potential emergency water supply accidents to strengthen its capabilities in prevention, preparedness, response, and recovery stages, mitigating disasters and accident losses.

## 2.2.3 Water Pricing and Public Water Rights

Taiwan Water Corporation (TWC) plays a vital role in sustainable water management. Our water pricing policy directly impacts allocation efficiency, social equity, and environmental sustainability. A fair rate structure balances economic growth, social equity, and environmental protection. Through a tiered pricing model, we secure basic water rights for low-income households while using price signals to encourage water conservation and reduce waste. We recognize that any rate adjustments must be carefully evaluated to avoid overburdening vulnerable groups. TWC will continue refining its pricing mechanism to protect essential public needs while gradually reflecting the true value and environmental cost of water, building a strong foundation for Taiwan’ s sustainable water future.

### A. Implementing Mechanisms to Secure Domestic Water Rights

TWC's policy on water affordability and access is to "ensure low prices for basic domestic water demand, and ensure all citizens can afford basic living water." With a cautious and responsible attitude, we carefully strike a balance between the cost pressures of public and industrial water rates and TWC's operational sustainability. The specific actions taken to implement this policy and strategy include the following:

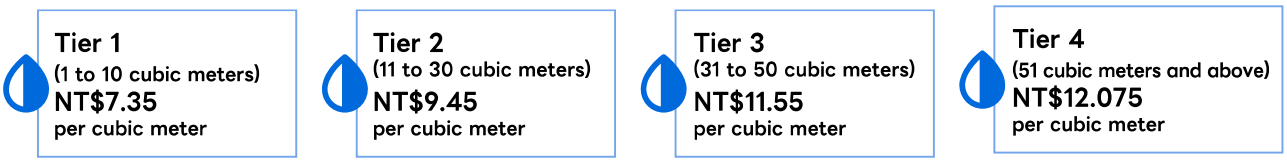
- **Diverse Communication Channels and Response Mechanisms**

To address potential negative impacts on water affordability and access, TWC has established diverse communication channels and response mechanisms. These include explaining water pricing policies and adjustment considerations to Stakeholders through the annual Shareholders' Meeting, setting up the 1910 customer service hotline to provide real-time consultation services, and establishing a public opinion

mailbox to widely gather suggestions from all sectors. These communication channels serve not only as a platform for gathering public opinion before water rate adjustments but also as a crucial mechanism to ensure transparency in water resource policies, enabling TWC to uphold its commitment to maintaining low prices for basic domestic water.

- **Reasonable Tiered Water Pricing: Tiered Water Rate Structur**

To maximize the positive impact of water pricing and accessibility, TWC upholds the principles of fairness and universal access by implementing a tiered water rate structure. This approach maintains the cost of basic domestic water at a reasonable and low level, ensuring that all households can afford essential daily water needs. The current pricing structure does not differentiate between user groups; it is categorized solely based on consumption volume (in cubic meters). The tiers are as follows:




- **Diverse and Convenient Water Bill Payment Channels and Services**

To enhance the convenience of payment for users, TWC has established a comprehensive system of diverse payment channels. Users can pay over the counter at various service stations or choose online channels such as the TWC official website and APP to pay their water bills. The company has also integrated various modern payment methods, including mobile payment services, automatic deduction from post office and financial institution passbooks each period, and automatic deduction via credit cards each period. Furthermore, to provide greater convenience, the company has partnered with financial institutions and convenience stores to expand water bill collection points. Considering economic factors, TWC has specially designed installment payment plans to effectively reduce users' short-term financial burdens, demonstrating considerate care for the public's needs.

- **Efficient Water Reconnection: Protection of Water Rights**

To protect the public's water rights, the company provides convenient water reconnection services for users whose water has been shut off due to non-payment. After the user pays the bill and applies for reconnection, the company processes the subsequent meter installation, which is completed in about one working day, ensuring the public's basic water needs are not affected for a long time.

- **External Pipeline Subsidy Program for Water Affordability**

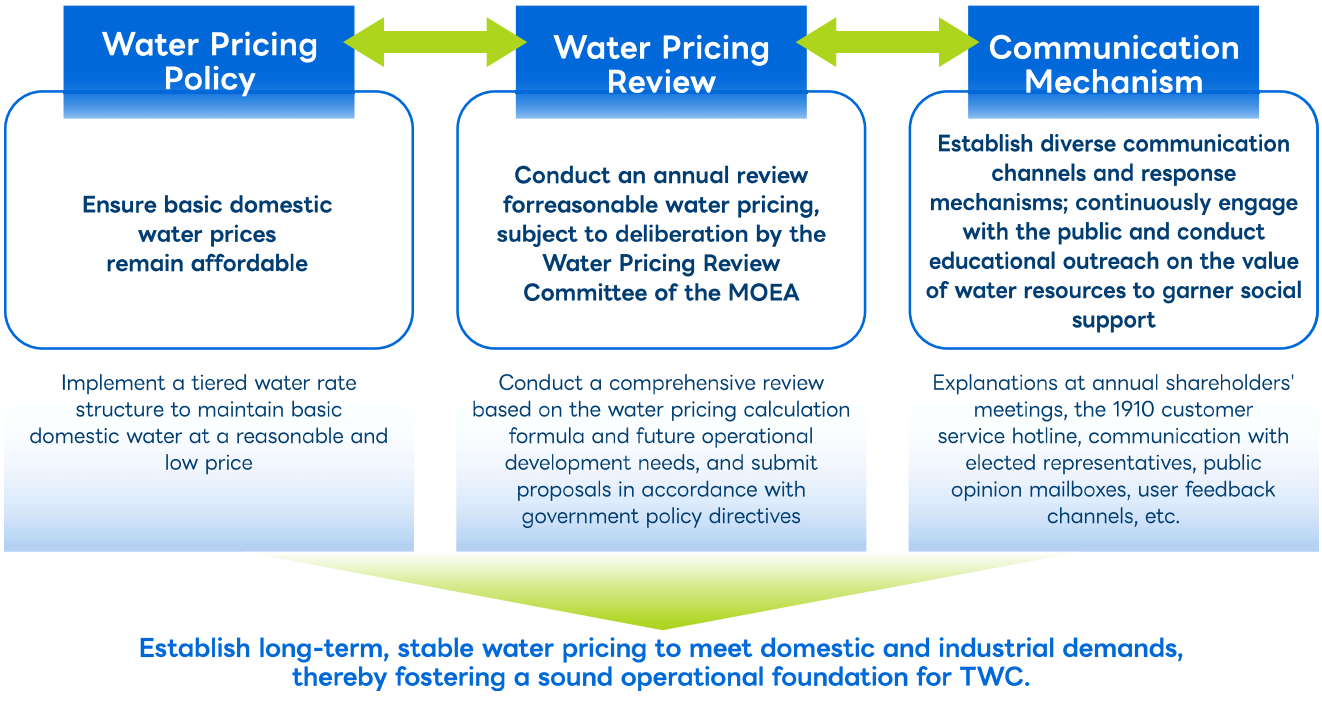
To improve Water Affordability & Access, TWC actively cooperates with the advocacy and execution of the Water Resources Agency, MOEA's "Tap Water User Equipment External Pipeline Subsidy Program." This subsidizes the external pipeline engineering costs (excluding road repair fees charged by road right authorities) for general users with a water meter caliber of 25 mm or less.

| The subsidy allowance is as follows | The public can apply for subsidies in two ways |
|---|---|
| • Full subsidy for low-income or lower-middle-income households<br>• For villages and neighborhoods where the Water Supply Coverage Rate is below 70%, the engineering cost for user equipment external pipelines under 20 meters is fully subsidized; for the portion exceeding 20 meters, 2/3 of the engineering cost for the excess length is subsidized.<br>• For cases other than the above two, 2/3 of the engineering cost is subsidized. | • Before connection: After TWC completes the user external pipeline design and notifies the user to pay, the applicant can take the "Payment Notice" and related external pipeline subsidy application documents to the local government to apply for the subsidy.<br>• After connection: After the user external pipeline project is completed and the meter is installed and activated, the applicant can take the "User New Water Supply Installation and Payment Certificate" and related external pipeline subsidy application documents to the local government to apply for the subsidy. |

## B. Water Pricing Review Mechanism

TWC's actions and strategies regarding water pricing are shown in Figure below. However, water rate adjustment is a major government policy and must be deliberated by the Water Rate Review Committee convened by the MOEA. This committee gathers diverse opinions from government departments, scholars, experts, industry representatives, and consumer groups to ensure the fairness and rationality of water rate adjustments and to meet Taiwan's livelihood and industrial economic needs. Based on the water rate calculation formula and future operational development needs, TWC continuously conducts comprehensive reviews and develops "Water Rate Adjustment Proposals" to be submitted to the competent authority, the MOEA, at appropriate times. Currently, communication with the competent authority has been strengthened, providing more comprehensive water supply cost analyses and livelihood impact assessment data to assist the government in striking a balance between protecting public water rights and sustainable water resource management.

### ▼ TWC Water Affordability & Access Policies and Actions



## ▼ Estimated Water Supply Costs for TWC in 2025

| Item | 2025 Average (NT$/cubic meter of water) | Remarks |
|---|---|---|
| Raw Water Cost | 2.75 | Cost of obtaining raw water |
| Water Treatment Cost | 2.35 | Cost of water intake and treatment |
| Water Supply Cost | 6.73 | Cost of water supply and network maintenance |
| Operating Expenses | 1.56 | Includes business expenses, management expenses, other expenses, etc. |
| Financial Cost | 0.74 | Interest expense |
| Total Water Provision Cost | 14.13 | TWC's actual estimated water provision cost |

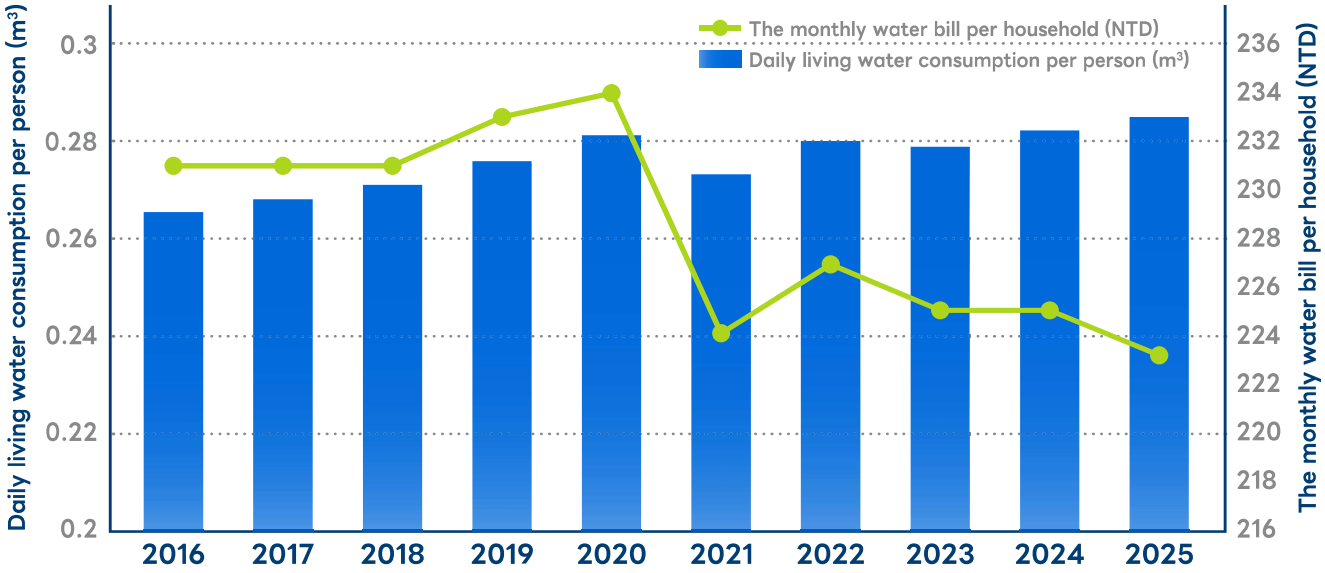
### C. Water Tariff Affordability Analysis

TWC has long been committed to ensuring the universality and affordability of tap water services. Based on the user water bill expenditure over the past 10 years, it is evident that the tap water services provided by TWC maintain a reasonable and stable price level, allowing general households to afford their basic water needs. Although the average daily water consumption per person fluctuates slightly, the monthly water bill per household remains within a very stable range. The data in the chart below shows that TWC's water pricing policy should achieve the goal of allowing the public to reasonably afford their water bills, and promoting water conservation actions within a reasonable adjustment range.

| Household Water Bill Expenditure Over the Past 10 Years | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| Daily Water Consumption per Person (cubic meters) | 0.265 | 0.268 | 0.271 | 0.276 | 0.281 | 0.273 | 0.280 | 0.279 | 0.282 | 0.285 |
| Monthly Water Bill per Household (NT$) | 231 | 231 | 231 | 233 | 234 | 224 | 227 | 225 | 225 | 223 |



### ▼ Taiwan 10-Year Household Water Consumption and Water Bill Burden Statistics




Note:

1. Daily living water consumption per person (cubic meters) = Living water consumption ÷ Mid-year water supply population ÷ Total days in the year
2. General households consuming under 30 cubic meters per month account for 84.51% of the total users. The monthly water bill per household in 2025 was NT$223, meaning general households can all afford basic living water.

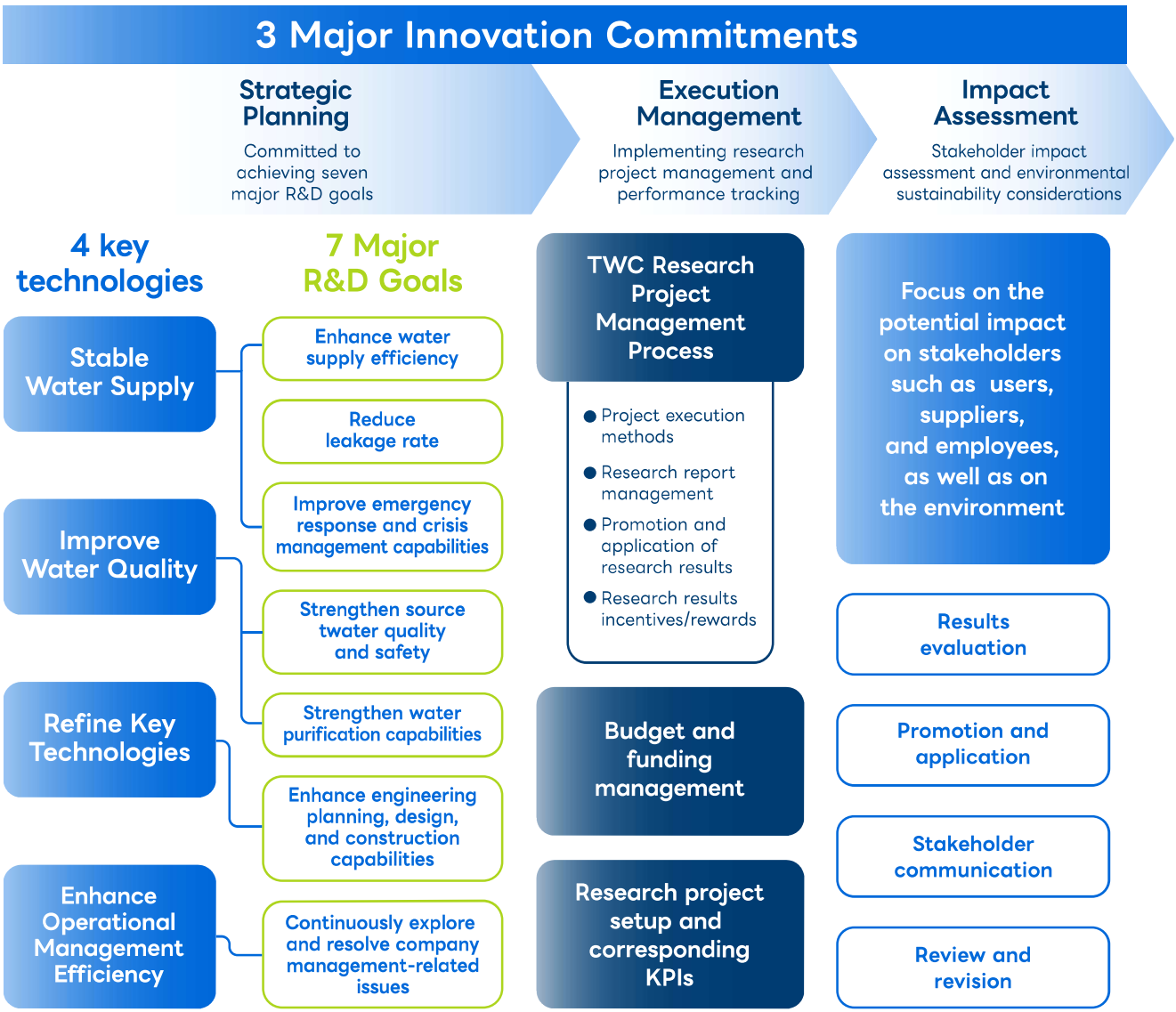
## 2.2.4 Technological and Innovative Development

Taiwan is a key supply chain hub for the global AI and chip waves. As the most crucial water supplier for this tech island, TWC continually strives to integrate Technological and Innovative Development into its overall water supply infrastructure and service applications, enabling smarter, more energy-efficient, more effective, and more precise approaches for operations and management. TWC actively introduces AI technology across various operational aspects of the Water Supply System and is committed to building forward-looking smart water utility. Through technological innovation and smart development, we refine operational performance and achieve comprehensive environmental and social benefits. Regarding Technological and Innovative Development, including the introduction and application of new technologies and talent training and development, hardware and software can advance synergistically. We place high attention on the technology R&D and talent cultivation. In January 2026, the R&D division of the original Department of Public Works and the Professional Training Center of the Department of Human Resources were merged to establish the Department of Research and Training, comprehensively integrating TWC's technological development and related talent cultivation.

### A. R&D and Innovative Development Strategy

"Innovation" is one of TWC's business philosophies and core values. Based on business development needs, government policies, technological development trends, and future development goals, we continuously promote Technological and Innovative Development to become a solid state-owned enterprise supporting social and economic development. Our core value is to provide users with a sufficient, high-quality supply of tap water. We have set four major technological focuses, three major innovation commitments, and seven major R&D goals (Figure in page 89). Through the three major technological innovation commitments of "Strategy Formulation—Execution Management—Impact Assessment," TWC effectively invests resources into key technology areas to achieve the goal and responsibility of sustainable water resources management.

## ▼ TWC R&D Innovation Focus Areas and Goals




### B. R&D and Innovation Management

Various units can propose research plans based on business development needs, government policies, technological development trends, or future development goals. The Department of Research and Training is responsible for the overall planning, supervision, and auditing of R&D performance. A research proposal is requested, which includes financial breakdown, expected benefits, key performance indicators (KPIs), and other relevant data. If the plan involves designing or developing new technologies or products, or requires obtaining intellectual property rights such as patents or trademarks, related intellectual property retrieval and evaluation must be conducted. At the same time, the effectiveness of the research plan is evaluated through a comprehensive system of expected benefit KPIs, covering economic aspects (increased revenue, reduced costs), technical aspects (product development, process improvement, technological innovation), IP management (patent applications), knowledge diffusion (reports, papers, technical services, and transfers), and environmental sustainability (energy and environmental benefits). Each research plan must have clearly set target values and explain its connection to the company's overall KPIs, ensuring R&D activities effectively support the company's strategic goals and respond to regulatory requirements, policy directives, and international standards.

- **Research Plan Management**

TWC's research plans are divided into three types of execution methods, chosen by each unit based on manpower, professional knowledge, resources, equipment, technology, practical environments, or legal regulations. Upon completion of a research plan, an independent, commissioned, or collaborative research report should be submitted according to the nature of the research. The data, including hard copies and electronic files, are stored in the company's knowledge management system. The unit undertaking commissioned research must specify, in the commissioned research plan closure report form, the method for public release of the full text of the final report on the Government Research Bulletin (GRB) system to serve the public interest.

### ▼ TWC Research Plan Management Process




In 2025, TWC continued to promote its intellectual property management system in accordance with the Level A 2016 standard of the Taiwan Intellectual Property Management System (TIPS) and relevant internal regulations. With "focusing on IP protection and perfecting the IP system" as its IP management strategy, TWC continued to optimize various documents and operational processes of the IP management system,

strengthening functions for IP acquisition, protection, maintenance, and application. TWC's intellectual property management policies include:

- Enhancing the IP management mechanism and improving R&D quality to ensure IP effectiveness.
- Introducing external R&D resources, actively innovating and developing technologies to enhance IP application benefits.
- Raising IP awareness among all employees and improving professional intelligence to strengthen core competitiveness.

- **R&D Innovation Execution and Promotion**

After each research project is completed, the undertaking unit may, depending on business needs, send the research report, practical application methods, or subsequent implementation work to relevant units via official letter, or hold briefing sessions to report the research results and listen to participants' opinions, serving as a basis for the future promotion and expanded application of research outcomes. The Department of Planning coordinates the execution results of research plans, the specific benefits, and application status of research outcomes, and reports them to the Board of Directors meeting. Publicizing research outcomes externally requires prior consent from the authorized business supervisor. If it pertains to an invention, creation, or design eligible for a patent application, the patent application process must be completed before publication. To encourage research outcomes, the company has established the "Guidelines for Rewarding the Publication of Research Outcomes," providing appropriate rewards for excellent research outcomes to stimulate proactiveness and innovation in research and development.

- **R&D Effectiveness Control and Assessment**

Through full-process control and tracking, TWC ensures the effective utilization of resources and expected outputs at each stage of R&D and innovation, facilitating that the relevant inputs bring effective innovations or benefits to TWC and optimize efficient resource utilization. The tracking at each stage is described as follows:

> ✓ **Before execution of R&D plans:** In accordance with the operational guidelines for R&D management, between May and July each year, various units propose plans and estimated costs based on business development needs, government policies, technological development trends, or future development goals. After preliminary and secondary review procedures, the annual R&D budget is compiled. If there are temporary or urgent plans during the year, they are submitted to senior executives for approval before budgeting.
>
> ✓ **Execution of R&D plans:** Review meetings are convened according to the contract schedule of each research plan to review whether it is executed according to goals and progress. Copies are sent to the Department of Planning for reference. At the same time, the budget execution progress of each research plan is tracked monthly.
>
> ✓ **After execution of R&D plans:** Annual research outcomes are submitted to the Board of Directors meeting for reference, and their specific benefits and application status are tracked for 3 years. For 5 years following the completion of the plan, the contribution of the R&D is assessed annually to ensure the research's contribution to the company.

## C. R&D and Innovation Achievements

Based on the four major R&D focuses, TWC continues to invest in diversified research plans, systematically improving tap water service quality and operational efficiency. The R&D inputs in various fields for 2025 are explained in the table in next page.

## ▼ TWC 2025 R&D and Innovation Achievements Performance Tracking

| Four Major R&D Focuses | Seven Major Goals | Actions and Plans | R&D Goals | Primary Achievements |
|---|---|---|---|---|
| Stable Water Supply | Enhance water supply efficiency | • Research on corrosion prevention technology for tap water equipment | • Strengthen the resilience and stability of water supply infrastructure, lower the Water Leakage Rate, and reduce replacement needs. Ensure water supply quality management in a smarter, more scientific manner. | • Extend equipment service life, strengthen safety monitoring and chemical use in water purification, and lower water supply costs.<br>• Enhance the efficiency and scheduling management of nationwide pipe network leak inspections and repairs. |
| | Lower Water Leakage Rate | • Establish a smart cloud tap water pipe network leak inspection management system | | |
| | Improve emergency response and crisis management capabilities | • Research on real-time water quality monitoring technology and data application<br>• Research on motor operation status monitoring and abnormality analysis. | | |
| Improve Water Quality | Strengthen water source water quality safety | • Study on the application efficiency and chemical specifications establishment of Polysilicate Iron (PSI) coagulant in water treatment | • Optimize water quality management and water treatment. Through monitoring, chemical usage research, etc., optimize water quality, expand Diversified Water Sources, and reduce customer complaint risks. | • Improve water treatment issues caused by long-term low-turbidity difficult-to-treat raw water and high-organic wastewater return flow. |
| | Strengthen water treatment capabilities | • Optimal treatment countermeasures for abnormal odors in water treatment plants | | |
| Refine Key Technologies | Enhance engineering planning, design, and construction capabilities | • Introducing AI for water pump operation status monitoring and abnormality analysis<br>• Development of crystallization softening crystal resource utilization technology<br>• Development and establishment of preliminary seismic evaluation information management system for tap water pool-like structures<br>• Rehabilitation methods for existing large-diameter pipelines in heavy traffic sections of metropolitan areas | • Strengthen the introduction and application of AI, research various resource utilization technologies, and innovative construction methods for infrastructure to promote TWC's core operational capabilities and competitiveness. | • AI monitors abnormal water pump statuses, reducing energy usage and labor costs.<br>• Crystallization softening crystal resource utilization technology expands the practice of circular economy.<br>• Various engineering researches can serve as standard references for future related construction and new facilities, optimizing infrastructure hard power. |
| Enhance Operational Management Efficiency | Continuously explore and resolve issues related to corporate management | • Drafting revision and explanation of seismic design specifications for tap water pool-like structures<br>• Water pipe bridge seismic evaluation and reinforcement operational manual<br>• Outsourced research on the revision of the "Charging Standards for New User Inlet Pipe Projects"<br>• Financial benefit evaluation of optimal leak repair scale<br>• Exploring potential interference sources in free available residual chlorine testing operations | • Comprehensively upgrade TWC's management standards to keep pace with the times, deepen the introduction and application of new technologies like AI, and identify cost control practices through financial analysis to optimize operational performance. | • Completed evaluations of infrastructure (water pools, water supply pipes, etc.), seismic resistance, and design specifications, which can serve as a reference and be implemented in facility management in the future.<br>• Multi-faceted improvement of management methods and practical approaches to increase water supply performance and reduce costs. |

# TWC Innovation and R&D Awards and Performance

In recent years, TWC has shined in the fields of digital transformation and smart water affairs, not only introducing AI to the frontline of operations but also receiving numerous domestic and international awards.

| AWARD TIME | AWARD NAME | AWARDED ITEM / REASON | SIGNIFICANCE |
|---|---|---|---|
| **OCTOBER 2024** | Participated in the Invention Competition at the Taiwan Innotech Expo | ♦ Seismic Expansion Joint Tie Rod for Water Pools (Gold Medal)<br>♦ Pressure-resistant Water Meter Box (Silver Medal) | Enhanced the durability and usability of water supply equipment, continuously optimizing various devices. |
| **JUNE 2025** | Edison Awards (USA) Gold Award | ♦ Smart Leak Monitoring System (in cooperation with ITRI) | International innovation award, demonstrating the global leading position of Taiwan's AI leak detection technology. |
| **DECEMBER 2025** | Buying Power Social and Startup Innovation Procurement Special Award | ♦ Variable Frequency Pump Optimization AI System | Combined AI algorithms with social innovation procurement to achieve precise water supply and energy-saving goals. |

# TWC's Cultivation in the AI Field

Facing an era of diverse challenges, TWC actively builds an AI application ecosystem, strengthening infrastructure resilience and operational efficiency through technology. AI is deeply applied to the frontline of water utility operations, including The Smart Aqua Leak Finder, the WADA Big Data Leak Detection Auxiliary System, integrated automatic monitoring systems (SCADA), AI-enabled Precision Chemical Dosing systems, AI pump monitoring and energy-saving analysis, AI raw water biological monitoring, intelligent customer service, the TWC Little Helper knowledge service platform, and comprehensively leveraging digitalization and AI technology applications. These applications enable TWC to strengthen water supply capabilities, build a resilient system, optimize cost control, and further promote employee safety and well-being, leading TWC towards a modern water utility enterprise, making AI a true working partner for all employees, and driving operational innovation and service optimization simultaneously.

Currently, TWC's overall integration of AI into the water value chain is shown in the figure below. There are significant advancements and positive impacts in lowering the Water Leakage Rate, enhancing pumping energy efficiency (a 22% improvement at the Qingzhou Water Treatment Plant pilot), reducing water purification chemical usage (a 25% reduction), and customer service response efficiency.

## ▼ TWC Comprehensive AI Applications and R&D

**Raw Water**
- AI Biological Monitoring of Raw Water
- TWC No. 1 Smart Water Quality Sampling Boat

**Water Treatment**
- AI Precision Chemical Dosing System
- AI Pump Monitoring and Control, Energy Efficiency Analysis, and Smart Scheduling

**Water Supply**
- AI Acoustic Underground Leak Detection System
- WADA Big Data Leak Detection Analysis

**Water Distribution and Sales**
- Smart Customer Service
- Optimization of Variable Frequency Pumping

To deepen practical AI applications, TWC simultaneously promotes education and training, and cross-disciplinary collaborations. To date, it has held multiple training courses and academic-industry technical exchanges covering basic AI knowledge, experience deploying on-premise AI large language models, and application tools, with over a hundred cumulative participants. It also plans to introduce tools like Microsoft 365 Copilot, ChatGPT, and Copilot Studio as foundational platforms for information development and smart applications.

In the future, TWC will continue to strengthen smart transformation from equipment management to service processes, actively promote AI talent cultivation, host hands-on activities like AI data workshops and AI innovative application competitions, and encourage employees' cross-disciplinary learning and innovative thinking, to create a new paradigm of data-driven, sustainability-oriented smart water affairs.

## ▼ Equipment Related to AI-Assisted Leak Detection Technology



## D. Talent Development and International Exchange

Talent is the core of innovation. Whether it is the introduction of new technologies or the transfer and review of existing ones, the company actively addresses the practical needs of employees learning new knowledge. It adopts measures such as contract specifications, education and training, and rolling reviews to help team members smoothly adapt to technological changes. At the same time, TWC deeply understands the value of international exchange and actively dispatches personnel to participate in global water resources management-related activities, absorbing foreign experiences for local application. By balancing internal training and external exchange, TWC promotes technological innovation and builds a solid talent pool.

| | |
|---|---|
| **Internal Training** | • TWC realizes that when new technologies are introduced, company personnel need to learn new knowledge areas to adapt to the changes. Regarding the adaptation pressure on personnel during technology transitions, the company clearly defines responsibilities and technology transfer methods for cooperation with external units through contracts, assisting employees in a seamless transition.<br>• Contracts for introducing new technologies stipulate a certain number of hours of education and training or technology transfer to ensure employees can effectively master the new knowledge.<br>• Rolling reviews of employee training plans are conducted annually. Specialized training courses are arranged for new technologies or new knowledge to continuously enhance employees' ability to adapt to and transition to new technologies, building a talent team that meets the company's operational needs. |
| **External Exchange** | Colleagues are encouraged to visit overseas. The related international participation and exchange achievements in 2025 are as follows:<br>• Traveled to Thailand to participate in the "18th Asian Waterworks Utilities Human Resources Development Network Meeting (A1-HRD)"<br>• Traveled to New Zealand to participate in the "International Water Association IWA-ASPIRE 2025 Conference"<br>• Exchanged technology on stainless steel seismic corrugated pipes with Tokyo Denki University and NEURON Corporation in Japan<br>• Discussed and cooperated on uninterrupted water supply methods and PCCP/PSCP-related leak repair technologies with Taisei Kiko Co., Ltd. in Japan<br>• Attended the "13th Taiwan-US-Japan Seismic Resistance Conference" organized by the Chinese Taipei Water Works Association (CTWWA)<br>• Participated in the Singapore Water Association (SWA) seminar on water resource issues under global climate change<br>• Conducted a study visit to Singapore's National Water Agency (PUB) to observe operations in water quality testing, bioanalysis, water quality management, water treatment research, and related educational training programs<br>• Visited the Training and Research Development Center of the Tokyo Metropolitan Waterworks Bureau in Japan<br>• Attended the 2025 Hiroshima Water Exhibition hosted by the Federation of Japan Water Industries and toured a pipeline reinforcement facility in Japan |

## E. TWC Innovation Outlook and Challenge

TWC will continuously balance the application of innovative technologies with their social impact, striving to create maximum value for Taiwanese society. Through technological innovation and collaboration, TWC can provide more stable and superior tap water supply services while reducing environmental impacts and promoting the balanced development of the industrial ecosystem. The challenges of R&D and innovation and TWC's response strategies are described as follows:

- **Management and Refinement of Technical Cooperation Relationships**

The management of technical cooperation relationships is a direction TWC will continue to focus on and refine together with external partners. In particular, many of TWC's suppliers or contractors are domestic small and medium-sized enterprises. The introduction of advanced foreign equipment or technology may exert operational pressure on traditional suppliers, including reduced cooperation opportunities or impacts on cooperative relationships due to vendors' inability to upgrade manpower and technology accordingly. In addition, while automation or AI assistance may reduce the need for outsourced labor, it could also create a dependency on specific technologies or vendors, thereby reducing TWC's future procurement flexibility. Therefore, TWC will continuously review relevant procurement items and promotion progress, striving for procurement cooperation that embraces technological innovation while prospering and advancing together with our partners.

- **Cost and Risk Control**

In the early stages of developing advanced technologies, because technical resources and professional capabilities are not yet complete, it is necessary to cooperate with external partners possessing professional knowledge and practical experience to reduce development risks and accelerate development speed. This may increase costs related to outsourced research, pilot trials, and education and training. At the same time, the introduction of technology may also alter the human resource demand structure. To align personnel allocation with business needs, TWC regularly conducts manpower inventories, reviewing the alignment of staffing with the organization, business, and competencies, adjusting personnel arrangements in a timely manner, while conducting relevant competency training and adjusting future job requirements.

- **Comprehensive Feasibility Assessments**

For the development of new technologies, TWC adopts principles of comprehensive prior assessment, step-by-step promotion, multiple supporting measures, and the introduction of professional technology and experience to mitigate risks while balancing development efficiency. To reduce the risks of new technology development, TWC conducts comprehensive feasibility assessments before investing, including commissioning professional units for evaluation and research, conducting pilot trials in high-demand fields, small areas, or specific subjects, and implementing staged construction. Broader application is rolled out only after achieving results and evaluating the benefits.

# 2.3 Enterprise Risk Management

The quality of TWC's risk management affects not only our operations and development but also has significant external impacts. Effective risk management can prevent or mitigate damage from unexpected internal and external factors affecting operations, enhance water supply stability, reduce operating costs, and decrease the environmental burden of the overdevelopment of water resources, thereby contributing to public stability and promoting economic activities.

## 2.3.1 Risk Management Policies and Strategic Commitments

In the face of rapidly changing internal and external business environments, to construct an effective risk management mechanism, manage potential risks, and minimize adverse impacts, TWC formulated the "Risk Management and Crisis Handling Standards." Approved by the Board of Directors and announced on the official website, these standards disclose the risk management policy (below), demonstrating our commitment to and support for implementing risk management and serving as the supreme guiding principle for all employees executing risk management operations.

- Managers at all levels commit to fulfilling their supervisory duties and bearing risk management responsibilities.
- Provide necessary resources to ensure the effective operation of the company's risk management mechanism.
- All employees must receive appropriate training to acquire the capabilities to execute various risk management tasks.
- Strengthen communication with internal and external Stakeholders to elevate risk management awareness among all personnel.
- Introduce best risk management practices for continuous improvement.
- Focus on public risk and water quality safety as the core of risk management.

## 2.3.2 Risk Management Implementation

### A. Operations of the Risk Management Committee

TWC established a "Risk Management Committee" in accordance with the "Guidelines for the Establishment of the Risk Management Committee" to strengthen risk management awareness and enhance risk management capabilities, which are incorporated into the company's "Risk Management and Crisis Handling Standards." The committee is chaired by the Chairman serving as the guiding member, the President as the chairperson, the Vice President overseeing the Department of Planning as the deputy chairperson, and the Director of the Department of Planning as the executive secretary. It also invites 2 Independent Directors to serve as members, invites the union to appoint (recommend) one person as a member, and includes the Chief Auditor, Vice Presidents, Chief Engineer, and relevant department heads of the Headquarters as ex officio members. Experts and scholars may be invited to attend and provide guidance when necessary. In 2026, it was reformed into a functional committee of the Board of Directors, with the Chairman remaining as the guiding member, and an Independent Director and a Supervisor mutually elected to serve as the chairperson and convener.

The Risk Management Committee is responsible for reviewing the annual risk management implementation plan and execution results, reporting the handling status to the Board of Directors for reference. According to the committee's establishment guidelines, it convenes at least once a year in principle, and interim meetings may be held when necessary. Its main tasks are to review the annual risk management execution

plan, examine and determine the company's annual risk profile, review the annual risk management execution status and review results, and report its annual execution results to the Board of Directors.

### B. Regular Risk Identification

Following the "P (Plan), D (Do), C (Check), A (Act)" management cycle, the company annually identifies external uncontrollable risks that affect the achievement of operational goals—such as climate, natural disasters, wars, and supply chains—and formulates response strategies and execution plans. In 2025, 9 major risk items were identified (below), and risk countermeasures were formulated respectively, covering issues like climate, natural disasters, procurement, sustaining water supply during wartime, and strengthening supply chain vendor management.

1. Water shortage or outage due to extreme climate or natural disasters.
2. Water quality pollution and abnormalities.
3. Road sinkholes caused by ruptured tap water pipes.
4. Operational impact due to information security incidents.
5. Unwarned sudden drop in water pressure or water outage.
6. Procurement malfeasance.
7. Major occupational disaster incidents.
8. Occurrence of labor-management disputes and employee protests.
9. Sabotage of critical infrastructure.

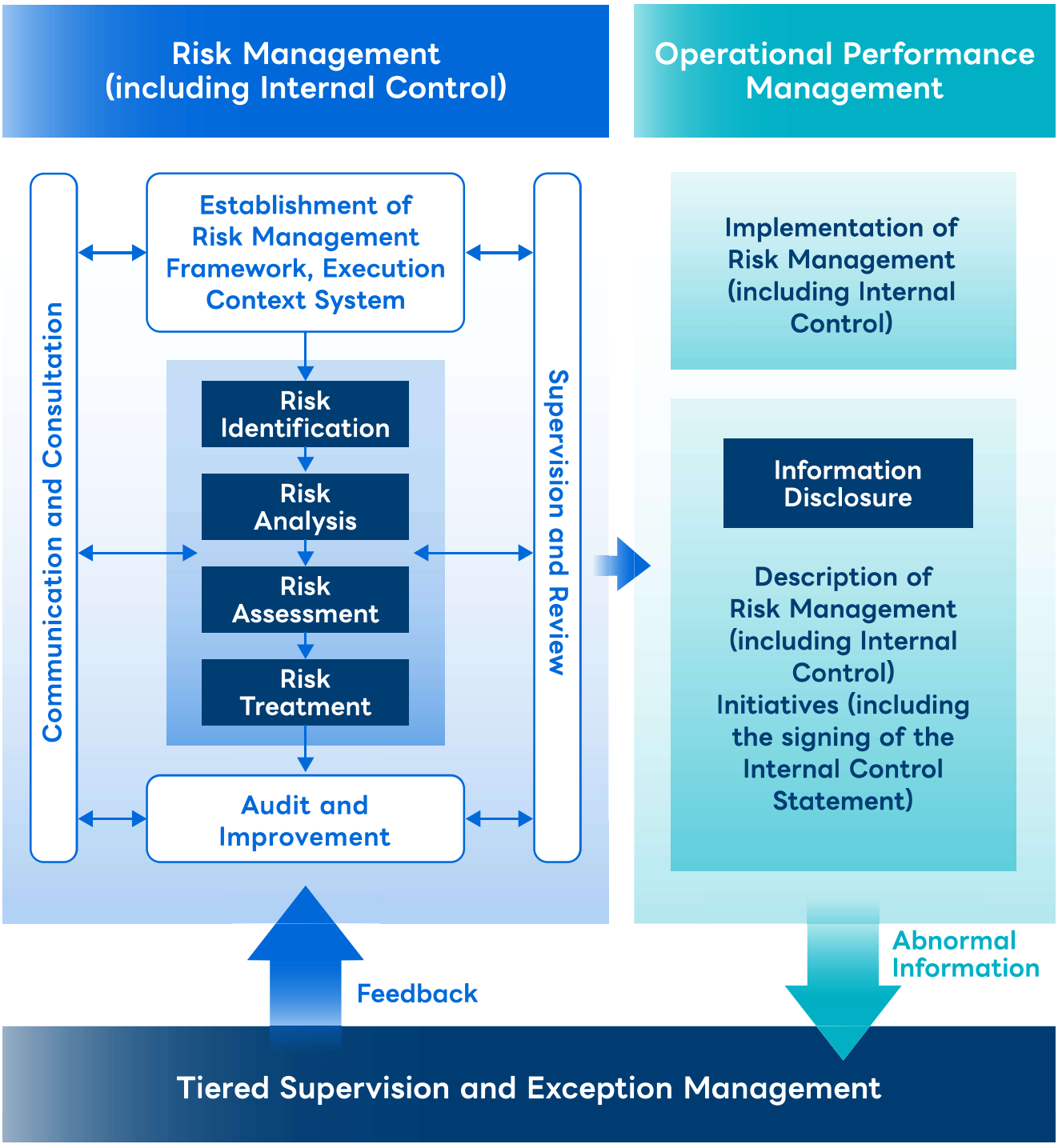
TWC has established risk event assessment standards. Based on the "Company Risk Event Occurrence Probability Assessment Criteria Table" and the "Company Risk Event Impact Degree Table," the probability and impact degree of risks are determined to categorize the risk level. Subsequently, based on the set tolerable risk levels, events exceeding the risk level are prioritized for management; those below the risk level are only subjected to appropriate observation and are not included in risk management activities. By synthesizing the current risk levels and risk values of various risks identified by internal units and comparing them with the risk judgment criteria, the company's inherent risk profile is established.

### C. Quarterly Tracking of Risk Issues and Status

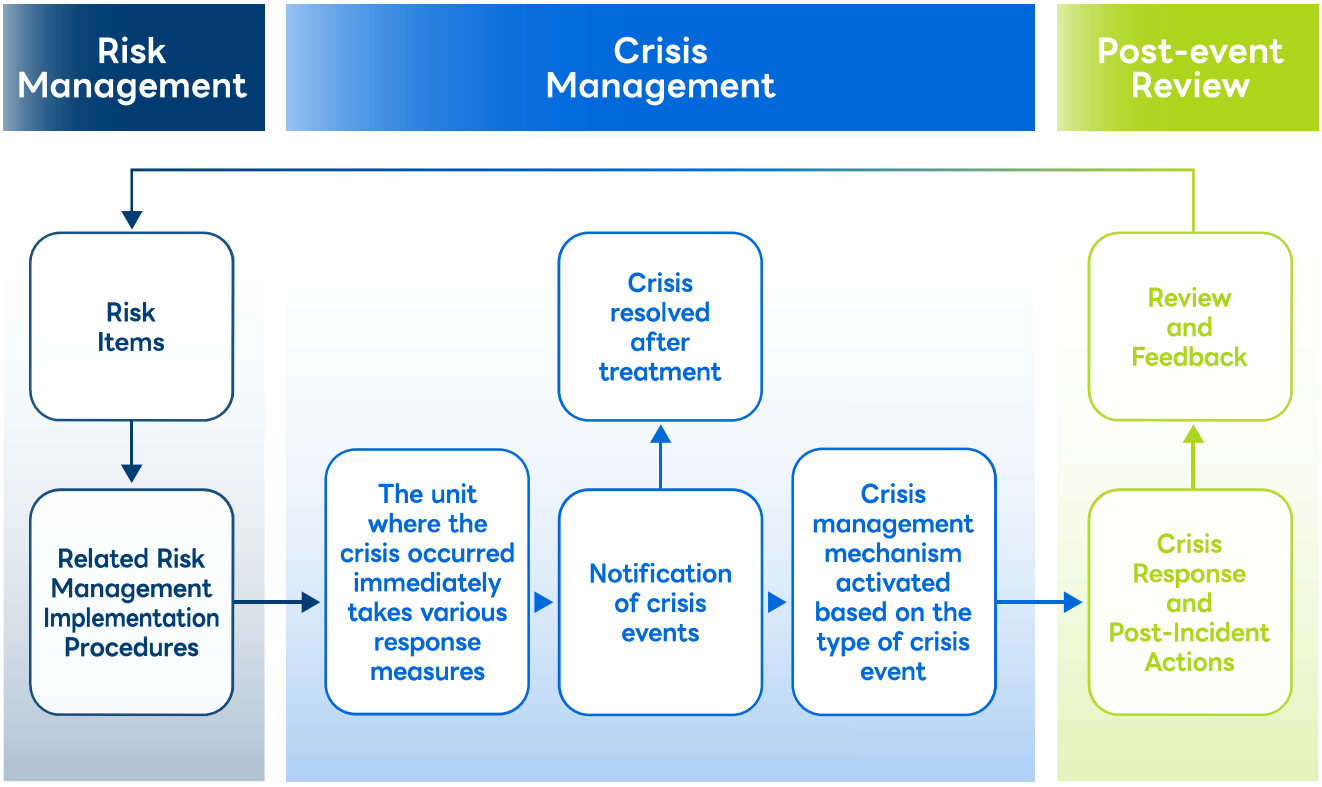
For identified risk items, TWC tracks and reports on them quarterly, implementing risk management so that relevant business units can accountably control these risks. The main tracking and control practices follow the principles and diagrams below, actively controlling risks and building crisis handling capacity.

- Annual high risk items require the responsible unit to submit a special report to the Board of Directors meeting.
- Issues regarding water quality safety and industrial safety/environmental protection are reported specially to the Board of Directors meeting every six months.
- If a major risk event reported by the media occurs during the year, the responsible business unit must report it to the Board of Directors meeting the following month.

## ▼ TWC Risk Management Architecture



▼ TWC Risk Management and Crisis Handling Architecture




## 2.3.3 Risk Management Effectiveness Evaluation and Continuous Refinement

Effective review and improvement of risk management are essential elements of steady corporate operations. In addition to identifying risks annually, TWC also proposes corresponding countermeasures to lower residual risks. Rolling reviews are conducted quarterly, and the Risk Management Committee meets semi-annually, adopting a rolling approach to review and revise the "Annual Execution Plan" year by year. This integrates risk management concepts into the company's strategies and the daily work of every member, hoping to "properly manage risks in peacetime and properly handle crises during emergencies."

In 2025, a total of 2 committee meetings were held (August 11 and November 26, 2025) to review the execution status. Through the implementation of risk identification and management mechanisms, the 2025 inherent risk profile and residual risk profile are as follows, demonstrating good risk management effectiveness via the implementation of risk countermeasures.

**Risk Management Information Transparency Section**

The "Risk Management and Crisis Handling Standards," "Risk Management Policy," and "Operational Flowchart" are disclosed in the Corporate Governance Section:

## ▼ TWC 2025 Risk Management Profile

### 2025 Inherent Risk Matrix

| Impact \ Likelihood | Unlikely (3) | Possible (2) | Highly Likely (3) |
|---|---|---|---|
| Severe (3) | | | |
| Moderate (2) | 2. Water quality pollution and anomalies (Water Supply Dept., Water Quality Dept.)<br>9. Damage to critical infrastructure (Water Supply Dept.) | 1. Water shortages or outages caused by extreme weather or natural disasters (Water Supply Dept., Public Works Dept.)<br>4. Cybersecurity incidents impacting operations (Information Management Dept.)<br>6. Procurement irregularities (Civil Service Ethics Dept.)<br>7. Major occupational accidents (Industrial Safety and Environmental Protection Dept.) | |
| Minor (1) | 8. Labor disputes and employee protests (Human Resources Dept.) | 3. Road sinkholes caused by burst water mains (Leakage Prevention Dept.)<br>5. Unannounced sudden drops in water pressure or water outages (Water Supply Dept., Leakage Prevention Dept.) | |

### 2025 Residual Risk Matrix

| Impact \ Likelihood | Unlikely (3) | Possible (2) | Highly Likely (3) |
|---|---|---|---|
| Severe (3) | 2. Water quality pollution and anomalies (Water Supply Dept., Water Quality Dept.)<br>5. Unannounced sudden drops in water pressure or water outages (Water Supply Dept., Leakage Prevention Dept.) | | |
| Moderate (2) | 6. Procurement irregularities (Civil Service Ethics Dept.)<br>7. Major occupational accidents (Industrial Safety and Environmental Protection Dept.) | | |
| Minor (1) | 4. Cybersecurity incidents impacting operations (Information Management Dept.)<br>3. Road sinkholes caused by burst water mains (Leakage Prevention Dept.)<br>8. Labor disputes and employee protests (Human Resources Dept.)<br>9. Damage to critical infrastructure (Water Supply Dept.) | 1. Water shortages or outages caused by extreme weather or natural disasters (Water Supply Dept., Public Works Dept.) | |



# 03

# TRANSITION FOR SUSTAINABILITY


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# 3 Transition for Sustainability

This chapter explains TWC's vision, strategies, and assessments in sustainable transformation, and helps stakeholders understand TWC's current responses to issues such as sustainable governance, climate risk, and natural risk.

## Sustainability Transition Targets

**TWC has established a comprehensive sustainable management framework. Its "Code of Conduct for Sustainable Development" clearly defines four key principles: implementing corporate governance, developing a sustainable environment, upholding social welfare, and strengthening information disclosure. Based on this, TWC has developed six major sustainability policies and established a Sustainability Development Committee to continuously promote its sustainability transformation efforts:**

Regular

### Sustainable Development Committee Meetings

Sustainable Development Committee will hold three meetings annually to systematically review the year's implementation at the beginning of the year, track progress mid-year, and formulate plans for the following year at the end of the year.

### Sustainable Action Plan

The 2025 Sustainable Development Implementation Plan focuses on 16 material topics, setting 40 actions and KPIs, covering key areas such as water supply management, pipeline resilience, net zero emissions, and occupational safety and health. The PDCA management cycle ensures the effective implementation and achievement of each sustainability goal.

## Climate Governance and Net Zero Emissions Actions

**We actively take climate action and conduct risk assessments, including establishing a climate governance framework, identifying risks, integrating operational strategies, improving climate resilience, and exploring opportunities for renewable energy development.**

### Continuously optimize climate risk identification and management

Incorporate climate risk into the management scope of the risk committee and plan for long-term response capabilities through business strategies.

### Advance the Company's net zero transition through five strategic pathways

Improve energy efficiency through energy-saving and energy-efficient buildings; develop green energy sources such as solar photovoltaic and small-scale hydropower; promote green office practices such as energy-efficient offices and low-carbon transportation; promote green services with paperless operations; and strengthen green production and efficient resource reuse, such as reducing water leakage and reusing sludge. Total carbon emissions reductions reached approximately 100,704 metric tons of $CO_2e$ in 2025, achieving 102.51% of the target.

### Continuously refine the net zero strategy

Continue progressing toward the target of reducing carbon emissions by 30% from the 2005 baseline by 2030, continuously review various carbon reduction measures and gradually expand the scale of solar photovoltaic installations by holding regular meetings of Solar PV 2.0 Working Group.

## Ecological conservation and nature-related risks

**TWC maintains water source conservation and natural ecological balance. Through technological monitoring, resource recycling, and environmentally friendly practices, it addresses the risks of environmental change and achieves the sustainable goal of coexistence and mutual benefit between humanity and nature.**

### Implement natural risk identification and management

Systematically address the impacts of soaring raw water turbidity, extreme weather disasters, and invasive species on water sources and operational facilities across Taiwan. Proactively deploy monitoring and database establishment for emerging pollutants (e.g. PFAS) to strengthen the environmental resilience of the water supply system.

### Promote circular economy and habitat friendliness

Implement 100% resource recycling of wastewater treatment sludge and calcium carbonate crystals, transforming waste into green assets such as red bricks and potting soil. Simultaneously develop diverse water sources, such as seawater desalination and ground water, implement Nature-based Solutions (NbS), including tree planting for carbon sequestration, thereby reducing the pressure on surface freshwater ecosystems for water intake.

### Enhance ecological monitoring and quantitative assessment

Conduct statutory and autonomous environmental surveys at key sites nationwide, including Niaozueitan and Nanhua reservoir, monitoring quantitative indicators such as land footprint, wastewater recycling rate (reaching 83.6%), and effluent quality to ensure that operational activities are in harmony with local biodiversity and habitat environment.

# 3.1 TWC Sustainability Development

## 3.1.1 Sustainable Vision and Implementation Principles

As a responsible corporate citizen, TWC actively advances public welfare and embeds sustainability across its commercial operations. We commit to boosting our national economic contributions while continuously enhancing the quality of life for our workforce, local communities, and society at large. Using corporate responsibility as a foundation, we strengthen our long-term competitive advantages. To guide all corporate workflows, we have aligned our internal operations with the Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies to form the TWC Sustainability Development Code of Conduct.

| TWC Sustainability Development Code of Conduct | Content |
|---|---|
| **Strengthening Corporate Governance** | Structures and frameworks. The Board of Directors delegates the implementation of sustainability policies to the Sustainability Development Committee, which submits regular performance reports directly to the Board. Systematically engage stakeholders to address key ESG issues. Enforce absolute legal compliance, professional ethical codes, and fair competition standards while preventing anti-competitive behavior, meeting corporate tax duties, and preventing corruption or bribery. |

| TWC Sustainability Development Code of Conduct | Content |
|---|---|
| **Building a Sustainable Environment** | • **Environmental Compliance:** Comply with all regional environmental statutes andwinternational environmental guidelines across all corporate operations.<br>• **Resource Sustainability:** Maximize resource utility efficiencies and prioritize low-impact, recycled secondary raw materials to reduce our ecological footprint.<br>• **Environmental Management Systems:** Maintain tailored environmental management frameworks focused on three core areas: (1) Gathering and analyzing timely data regarding operational impacts on local ecosystems; (2) Establishing, auditing, and updating measurable environmental targets; and (3) Tracking performance metrics against active sustainability milestones.<br>• **Training & Awareness:** Conduct structured environmental education and training programs for our workforce.<br>• **Eco-Efficiency & Catchment Protection:** Embed sustainable consumption concepts into procurement pipelines. Build robust water resources management infrastructure and apply the Best Available Techniques (BAT) for pollution control to prevent environmental contamination.<br>• **Climate Adaptation:** Closely evaluate climate vulnerabilities across all facilities, implementing energy-saving improvements and greenhouse gas mitigation to limit operational impacts. |
| **Advancing Social Responsibility** | • **Strict Compliance and Human Rights:** TWC strictly complies with labor laws and regulations, safeguards employees' legal rights and interests, and upholds internationally recognized labor and human rights principles. Our human resources policies ensure non-discriminatory treatment, promote equal opportunities across all aspects of employment, and maintain transparent communication regarding employee rights and benefits.<br>• **Occupational Health, Safety, and Talent Development:** We provide a safe and healthy working environment, actively reduce workplace hazards, and conduct regular safety training and education programs. TWC is committed to fostering a supportive career development environment through structured and effective training programs. Formal communication channels are established to ensure employees' access to information and their right to express opinions, while material operational changes are communicated in a timely and appropriate manner.<br>• **Customer Responsibility and Data Protection:** Guided by product responsibility and marketing ethics, TWC ensures high-quality products and services, provides transparent grievance mechanisms, and safeguards customer privacy.<br>• **Sustainable Supply Chain Engagement:** We proactively assess the environmental and social impacts of our operations and procurement activities, and collaborate closely with suppliers through continuous engagement and communication to jointly advance sustainable development.<br>• **Community Engagement and Impact Mitigation:** TWC is committed to minimizing impacts on local communities, while actively investing resources to strengthen community identity and support regional development. |
| **Enhancing Transparency and Disclosure** | Maintain high corporate transparency by publicly disclosing all mandatory sustainability disclosures in accordance with statutory guidelines. Publicly release regular sustainability reports detailing governance frameworks, material topic assessments, performance metrics, and future improvement paths. |

## TWC Sustainable Development Milestones & Timeline

**2014 Oct** Established the Corporate Social Responsibility Best Practice Principles and Corporate Social Responsibility Policy.

**2014 Nov** Enacted the Regulations for the Establishment of the Corporate Social Responsibility Promotion Committee.

**2015 Dec** Published TWC's inaugural sustainability report following international GRI guidelines, backed by independent third-party verification.

**2022 Apr** Formed the specialized Carbon Reduction and Net Zero Emissions Project Task Force.

**2023 May** Restructured the CSR Promotion Committee into the Sustainability Development Committee, expanding its composition to include independent directors and labor union representatives. Simultaneously updated core documents into the Sustainability Development Policy and Sustainability Development Code.

**2024 Jan** Amended the committee rules to add the Vice President and Chief Engineer as sitting members. Formally renamed the net zero working group to the Net Zero Transition Task Force.

**2024 Mar Apr** Established the Solar PV 2.0 Task Force and the Green Office Promotion Task Force to manage targeted environmental metrics.

**2025 Jan** Positioned the Chief Sustainability Officer (CSO) as the Convener of the Net Zero Transition Task Force to strengthen executive oversight and execution of carbon strategies.

**2025 Feb** Re-engineered the governance framework by merging the management-level Sustainability Development Committee with the Board-level Corporate Governance Committee. This consolidated group was elevated to a formal functional committee directly under the Board of Directors.

**2026 Jan** Elevated the Risk Management Committee to a functional committee under the Board of Directors, aligning climate and enterprise risk oversight with top-tier corporate governance.

## 3.1.2 Sustainability Governance

### A. Sustainable development policy

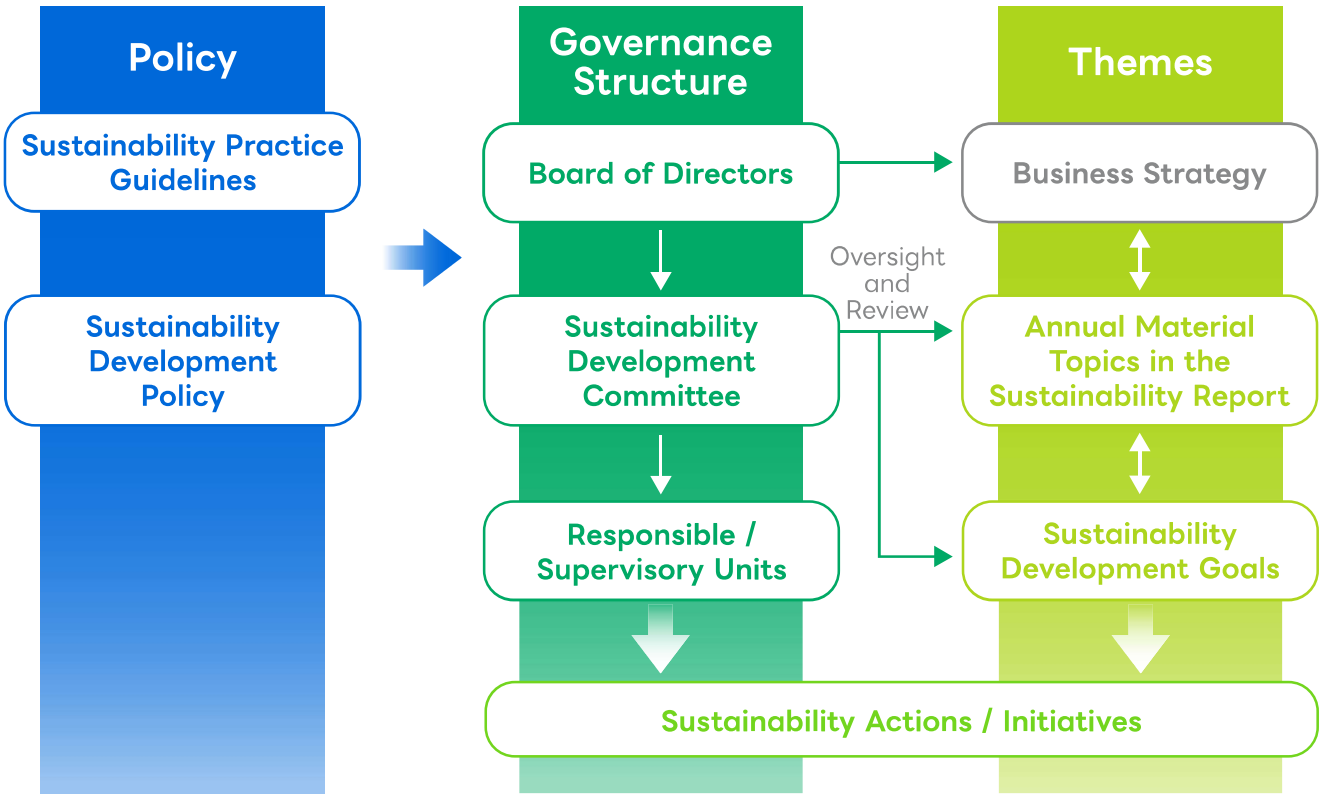
The Board of Directors serves as the supreme oversight body for TWC's sustainability strategies, guiding long-term corporate development. The Board maintains active oversight of all ESG agendas, ensuring the effective integration of sustainability strategies into daily operations through structured project approvals and data-driven decision-making. First enacted in 2014 and modernized in 2023, the TWC Sustainability Development Policy governs operations across four core dimensions—Economic, Social, Environmental, and Governance—to build deep public trust and stakeholder cooperation.

TWC Sustainable Development Policy：

- **Maintain absolute compliance with statutory regulations and insist on ethical business management.**
- **Enforce robust corporate governance to drive long-term corporate value.**
- **Proactively foster public benefits and support regional economic development.**
- **Build high-quality work environments and safeguard employee well-being.**
- **Participate in social services and invest in local community relations.**
- **Strengthen industrial safety and environment protection while driving continuous carbon mitigation and energy efficiency.**

To implement its sustainability vision, practical principles, and sustainable development policies, TWC develops action plans for the major themes identified in its annual sustainability report, which are reviewed and supervised by the Sustainability Development Committee. The overall governance structure is shown in the diagram below, with the Board of Directors and the Sustainability Development Committee sharing responsibilities with various relevant units to align with TWC's business strategies and actions.

### ▼ TWC Sustainability Governance Structure




#### A. Sustainability Development Committee

First formed in 2014 to manage corporate social responsibilities, the taskforce was updated into the Sustainability Development Committee in 2023 to meet growing public expectations and global ESG shifts. In February 2025, TWC upgraded this framework by merging the management-level sustainability unit with the Board's Corporate Governance Committee. This integration created a high-level functional committee directly under the Board of Directors, establishing clear lines of accountability. The committee consists of five directors—including two independent directors and one labor director—with independent directors serving as Co-Conveners to ensure balanced oversight.

- **Sustainability Committee Structure**

The committee meets at least three times a year, with the President, Vice Presidents, and all department heads in attendance to shape annual implementation targets and track execution data. This centralized structure ensures that sustainability policies filter down from executive layers through total administration divisions, regional branches, and engineering offices to form an integrated corporate sustainability network. When evaluating forward-looking strategies, the committee brings in external experts and academic advisors to maintain the feasibility and scientific rigor of TWC's sustainability targets.

## ▼ TWC Sustainability Committee Structure

**Sustainability Committee**

Committee member:
Two independent directors, one labor director, and two directors, with the two independent directors serving as co-conveners.

Executive agencies

- Dept. of Planning
- Dept. of Public Works
- Dept. of Water Supply
- Dept. of Industrial Safety and Environment Protection
- Dept. of Water Loss Management
- Dept. of Business
- Dept. of Procurement and Supply
- Dept. of Water Quality
- Dept. of Finance
- Dept. of Accounting
- Dept. of Information Management
- Dept. of General Affairs
- Dept. of Civil Service Ethics
- Dept. of Human Resources
- Dept. of Research and Training
- Branch*13
- Regional Engineering Office*3

**Environment**

- Environmental and ecological protection
- Occupational safety and management
- Net-zero carbon reduction
- Promote and develop environmental policy.

**Governance**

- Corporate Governance
- Integrity Management
- Information Transparency and Disclosure
- Promotion and Development of Governance Systems

**Social**

- Employee care and a friendly workplace
- Social welfare activities
- Neighbour relations and participation
- Promotion and development of social welfare systems

- **2025 Committee Operational Performanc**

The Sustainability Development Committee oversees the formulation and performance review of TWC's annual sustainability roadmap. Its oversight covers corporate governance, environmental compliance, labor health, customer service, and information disclosure. In 2025, the committee convened three times, successfully carrying out its oversight and audit mandates. All reviewed action plans and performance updates were forwarded directly to the Board of Directors, ensuring that TWC's sustainability pathways remain aligned with long-term financial and operational strategies.

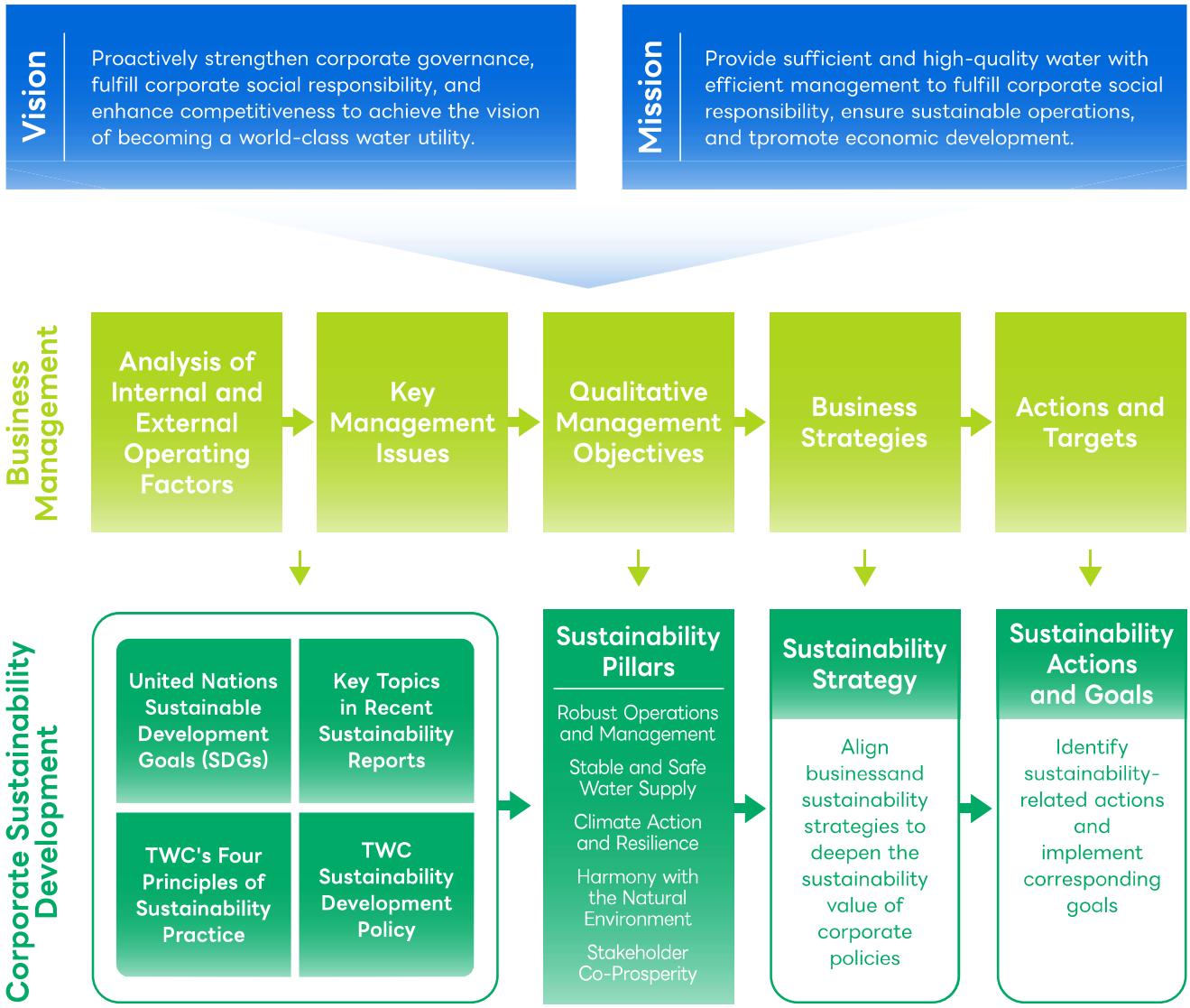
## ▼ Summary of TWC Sustainability Development Committee Meetings

| Date | Key Agendas Reviewed | Key Resolutions & Governance Directives |
|---|---|---|
| **March 28, 2025** (1st Session) | • 2024 Board of Directors Performance Evaluation Report<br>• 2024 Corporate Governance Evaluation Outcomes | • Accepted third-party recommendations to study elevating the Risk Management Committee to a functional committee under the Board.<br>• Directed all operational departments to integrate evaluator feedback into next year's corporate governance benchmarks. |
| **August 22, 2025** (2nd Session) | • Carbon Mitigation Strategic Progress Report<br>• ESCO Optimization & Green Office Plan Audits<br>• H1 2025 Sustainability Roadmap Performance Review | • Carbon Mitigation Strategic Progress Report<br>• ESCO Optimization & Green Office Plan Audits<br>• H1 2025 Sustainability Roadmap Performance Review |
| **November 28, 2025** (3rd Session) | • Verification of Documentation for the National Corporate Governance Evaluation<br>• Evaluation and Approval of the 2026 Sustainability Development Plan | • Directed business units to update corporate evaluation records based on committee feedbacvk prior to final submission.<br>• Formally passed the 2026 Sustainability Roadmap and forwarded it to the December Board meeting.<br>• Directed that all FY2025 performance metrics be prepared for audit at the first committee session of 2026. |

## 3.1.3 Sustainable Targets and Strategies

TWC's sustainability pathways mirror its long-term commercial goals, ensuring that utility operations serve as the foundation for sustainability actions. By analyzing external threats, market opportunities, internal advantages, and operational weaknesses, we formulate targeted action plans and key performance indicators. Blending our corporate vision with regional material themes and international trends—such as the United Nations Sustainable Development Goals (SDGs)—TWC focuses its sustainability actions on Five Core Sustainability Pillars.

### ▼ TWC Sustainable Development and Management Strategy Link Explanation




The five main pillars and related goals of TWC’ s sustainability are explained in the diagram below. At the same time, we actively respond to the United Nations Sustainable Development Goals, aiming to become a world-class water utility and fulfill our corporate social responsibility.

▼ TWC Sustainable Development Strategies

# TWC Sustainable Development Strategies

## Robust Business Management

**Build robust corporate operations, secure financial health, and maximize administrative efficiency to maintain utility competitiveness.**

### Strategic Action Pathways

- Promote management innovation
- Improve service quality and capacity
- Strengthen financial stability
- Implement sustainable governance
- Increase water supply coverage




1.4 6.1 16.6

### Core Operational Actions

- Promote rational water pricing
- Control operating costs
- Increase percentage of revenue water
- Improve R&D management
- Improve water supply in areas without tap water
- Improve pressurized water equipment for users in old, high-altitude communities
- Establish a smart water network information system
- Introduce diverse applications of AI technology

### Primary Realized Impacts

- Water supply coverage rate to reach 95.01% by 2025
- Developing intelligent management
- Developing diverse AI technologies
- Developing diversified revenue streams and financial optimization measures
- Implementing corporate governance and anti-corruption management

## Stable & Safe Water Supply

**Strengthen core competencies, mitigate climate risks, protect customer rights, and implementsmart and digital approachesto safeguard municipal water supply network.**

### Strategic Action Pathways

- Source diversification
- Distribution network resilience
- Upgrade water treatment plants
- Emergency capacity building
- End-to-end water safety
- Smart water network and user cooperation




6.1, 6.4, 6.3, 6.5 9.1 11.5

### Core Operational Actions

- Execute Leakage Master Plans
- New water sourcing
- Advance desalination projects (Hsinchu, Tainan, Penghu)
- Emergency Water Supply Response Plan
- Disaster Area Water Supply Facility Repair Plan
- New Construction, Renovation, and Upgrading of Water Treatment Plants
- Enhanced Maintenance and Replacement of Water Quality Monitoring Instruments
- Promotion of Water Safety Plan (WSP) Strengthened Water Quality Safety Management to Address Abnormal Water Quality and Emerging Pollutant Control
- Enhanced Water Quality Information Management

### Primary Realized Impacts

- 2025 total water sales reached 2,604,847,000 $m^3$.
- System grid delivery capacity hit 4.921 billion $m^3$.
- 2025 water dispatch rate achieved 90%
- Water quality compliance rate reached 99.95%
- Leakage cut to 11.52%
- Implement plans for water source development, reclaimed water, regional water supply scheduling, and pipeline connection.
- Promote the digital upgrade of water supply monitoring.
- Follow risk assessment, continue to improve and review aspects affecting water safety to ensure water quality safety.
- Establish methods for abnormal water quality, stricter or newly added drinking water quality standards.
- Improve laboratory efficiency; provide real-time water quality information announcements to enhance customer service quality and satisfaction.

## Climate Action & Grid Resilience

**Build comprehensive climate adaptation workflows, lead carbon cuts, and transition toward low-carbon water delivery systems.**

### Strategic Action Pathways

- Enhance energy efficiencies
- Pursue multi-path carbon mitigation
- Expand renewable energy investments
- Enhance climate resilience and adaptation




7.2, 7.3




13.1, 13.2

### Core Operational Actions

- Improve water purification and supply energy efficiency
- Promote green building and tree planting for carbon sequestration
- Install solar PV and small hydropower generation
- Improve office energy efficiency
- Digitalization

### Primary Realized Impacts

- Realized actual carbon reductions of 100,704 metric tons of $CO_2e$ in 2025.
- Solar generation hit 99,515 MWh; small hydropower generated 8,992 MWh.
- Enhance cross-region dispatching capability
- Invest in hazard-resilience construction and equipment

## Coexistence with Nature Networks

**Align operations with circular economy metrics, biodiversity protection standards, and zero-waste trends to foster environmental harmony.**

### Strategic Action Pathways

- Enhance environmental workflows
- Secure watershed protection
- Fulfill circular economy actions




6.6




12.5




14.1, 14.2




15.1

### Core Operational Actions

- Enforce reservoir patrol loops and pollution prevention
- Process treatment sludge for reuse
- Promote environmental education
- Drive sustainable green procurement across supply chains

### Primary Realized Impacts

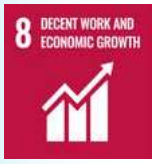
- Promote reservoir environmental monitoring and conservation
- Promote environmental education
- Achieved 100% compliance with national effluent water standards.
- Maintained 99.9% conversion of water treatment sludge into recycled resources.
- Supply chain management

## Shared Stakeholder Prosperity

**Maintain open communication with all partners, improve workforce health, and build public-private partnerships.**

### Strategic Action Pathways

- Cultivating water conservancy talent
- Ensuring worker welfare
- Transparent communication and disclosure
- Collaboration among multiple stakeholders




8.5, 8.8




17.16, 17.17

### Core Operational Actions

- Deploy talent retention models
- Eliminate occupational risks
- Drive technical partnerships with global research bodies

### Primary Realized Impacts

- Provided 85,638 hours of professional workforce training in 2025.
- Maintained zero major occupational accidents across employees and vendors.
- Continuous collaboration with external partners in R&D and water supply capacity optimization
- Participation in various public associations

## ▼ TWC Operation Aligning Sustainable Development Goals ( SDGs )

### Core Contributions




Rooted in its core business, TWC provides Taiwan with safe, affordable, high-quality, and efficient water supply services. Through integrated water resource management, the company ensures that all citizens have access to reliable and superior water services.




By delivering exceptional water quality, TWC supports industrial development in Taiwan and maintains resilient water infrastructure. The company continues to enhance operational efficiency and resilience through innovation and technological applications.

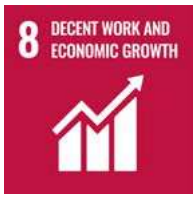



As a public utility, TWC actively promotes sustainability-driven procurement and transparent communication and disclosure, continuously optimizing responsible water supply operations.

### Related Goals




As a public utility, TWC actively promotes sustainability-driven procurement and transparent communication and disclosure, continuously optimizing responsible water supply operations.




TWC fosters a friendly workplace environment, respects the rights and well-being of all workers, and cultivates the next generation of water professionals.




The company takes proactive climate actions toward net-zero emissions and builds climate-resilient water infrastructure.




Through active investment in terrestrial and freshwater conservation and monitoring, TWC protects and restores ecosystems, promoting environmental sustainability and ecological harmony.

### Additional Outcomes
















## ● 3.1.4 Action Plan Implementation and Performance Review

TWC) implements sustainable governance by developing an "Annual Sustainable Development Implementation Plan" annually based on the major themes identified in the latest annual sustainability report. This plan outlines performance indicators (KPIs) and implementation plans for each major theme and tracks their progress throughout the year. We have established comprehensive implementation plans and performance targets for each major theme. The 15 major themes identified previously, along with 38 implementation plans and targets, are shown in the following table. We will continue to review and refine our sustainability performance based on the latest major theme identification results. (The major themes in this year's report have been slightly adjusted; please refer to the "2025 Material Topics Identification Results and Change Explanation" table for details.

This action plan demonstrates TWC's emphasis on the major themes identified each year. Our company has each management unit develop implementation projects for each major theme. The 2025 sustainability goals, strategies, and results summary are summarized in the table below.

## ▼ Summary for 2025 Sustainable Development Action Plan

| | Topic | Key Actions | 2025 KPI | 2025 Performance |
|---|---|---|---|---|
| Environment | **Water Supply Management** | Improve water supply monitoring communication architecture | Adjust SCADA connectivity for 13 sites | Due to cybersecurity and system stability considerations, only one plant was completed in 2025; the remaining 12 will be completed by mid-2026 |
| | | Coordinate with Water Resources Agency dispatch | Dispatch achievement rate above 80% | Achievement rate reached 90% |
| | | Reduce water interruption duration | Average interruption time lower than previous 3-year average | Reduced from 25.74 hours to 22.85 hours |
| | **Distribution Network Efficiency** | Reduce water leakage rate | Reduce to 11.55%, replace 718 km pipes, 74 DMA | Leakage reduced to 11.52%, 462 km pipes replaced, 74 DMA established |
| | | Major pipeline safety assessment | Submit report on time | Report completed and approved in April |
| | **Network Management and Climate Resilient** | Implement backup transmission pipelines | Complete 4 pipelines | Back pipeline projects have been completed (Taichung Xiangshun Road and Gangshan to Beiling booster station); two others are still under construction due to various reasons (1. The Shulin District project in New Taipei City was delayed because the outer circulation of Typhoon Fengshen and the northeast monsoon combined with flooding in Taipei Port, which prevented the containment of earth and stone, thus delaying the MRT project; 2. The Taichung Railway Elevated Corridor project was delayed because the road rights unit requested a road excavation ban during the Lunar New Year). The progress will be monitored and the project is expected to be completed in 2026. |
| | **Energy Management & Net Zero Emissions** | Reduce carbon emissions | Reduction of 98.2 thousand metric tons $CO_2e$ | The annual carbon reduction was approximately 101,000 metric tons of $CO_2e$, achieving approximately 103% of the target, and reaching the company's first phase net-zero emissions target. |
| | **Reservoir Conservation** | Reservoir dredging | 1.71 million $m^3$ | Dredging work was carried out at Nanhua Reservoir, Renyitan Reservoir, Chengcing Lake Reservoir, and Fengshan Reservoir. The total dredging volume for this year was 894,200 $m^3$ (the annual target for Nanhua Reservoir was 1,450,000 $m^3$, but the target was not met due to the delay in the assembly of related equipment caused by typhoons and heavy rains; the dredging was suspended twice due to the impact of dredging and sand removal on the turbidity of the downstream end; and the new contract contractor applied for the Taipower electricity application process). |
| | | Watershed patrol | 6,000 inspections | 8,895 inspections achieved |
| | **Effluent Quality Management** | Ensure compliance | 0 violations | 0 violations achieved |
| | | Strengthen self-sampling | Each water treatment plant established its own sampling plan and completed 1,318 tests. | A total of 1,318 times of sampling |

| | Topic | Key Actions | 2025 KPI | 2025 Performance |
|---|---|---|---|---|
| Environment | **Circular Economy** | Sludge reuse | Reuse rate reached 99.9%. | 99.9% achieved |
| | | Water purification, softening, calcium carbonate crystallization, and resource reuse | Reuse rate reached 99.9%. | 99.9% achieved |
| Social | **End-Use Efficiency** | Meter inspection | <4% failure rate | A total of 4,760 items were inspected throughout the year, with a failure rate of 1.85%. |
| | | Meter replacement | Replacement rate for aging water metering at 99%. | 98.24% achieved |
| | **Drinking Water Quality** | Enhance water quality management | 1. Water safety plan was implemented > 13 times.<br>2. Headquarters and 13 district offices passed surveillance assessment and maintained the validity of certification. | 1. 30 water purification plant operations were conducted as part of the annual water safety plan.<br>2. District Branch 1, 2, 5, 6, 8, 9, 10, 11, 12, and Pingtung District have passed TAF (ISO 17025) surveillance assessments. Districts 3, 4, and 7 completed their preparations and submitted assessment applications in 2025, and all assessments were completed by March 2026 to comply with the certification body's assessment schedule. |
| | **Occupational Health and Safety** | Implement safety system | 16 units audited; 3-year certificate renewal per unit | All targets achieved |
| | | Reduce the incidence of major occupational accidents among contractors | ≦ 1 | No major accident |
| | | Employee health check | 1,607person/year | Complete 3,525 employees |
| | | Specialist physician on-site service | 67 time/year | Complete 84 times |
| | **Labor Relations** | Labor meetings | 4 meetings | Completed |
| | | Employee Support Program | 17 publicity and training courses were held. | The company offers 59 courses covering psychology, health, stress relief, financial planning, legal matters, and gender equality. |
| | | Friendly workplace | • Checks on breastfeeding room cleanliness<br>• Signed agreements with 40 childcare providers<br>• Provided information on elderly care facilities<br>• Solutions to reduce working hours | • Inspected 33 breastfeeding rooms in first and second half year respectively<br>• Partnership agreements signed with 57 childcare providers<br>• Information available on 22 elderly care facilities in neighboring districts<br>• 343 employees completed shorten working time in the year |
| | | Employment of persons with disabilities | More than 3% total employment | Achieve 3.4% |
| | | Eliminating workplace bullying | ≦ 2 time/year | Two cases of workplace misconduct were filed this year. |

| | Topic | Key Actions | 2025 KPI | 2025 Performance |
|---|---|---|---|---|
| Governance | **Customer Privacy** | Prevent cyber threats | • 16 firewall logs from the District Management Office and Engineering Office were incorporated into the SOC monitoring system in 2025.<br>• Perform system account permission checks and cybersecurity audits. | No cybersecurity incidents occurred during the year; the annual cybersecurity audit plan, which included 12 areas, has been completed. |
| | | Promote the protection of sensitive data through electronic forms | The projected annual growth rate is 5%, with a target of 7,770 units. | The number of electronic forms will reach 11,583 by 2025, replacing paper forms. |
| | **Corporate Governance** | Corporate governance assessment, board performance evaluation, and professional development training for directors and supervisors. | Completed corporate governance assessment; conducted board performance evaluation; arranged for directors and supervisors to participate in 6 hours of professional development training. | Completed |
| | | Hold an interactive meeting between independent directors and supervisors and the board's audit office and management. | Four meetings | Four interactive meetings were completed in March, August, October, and November. |
| | | Review of the Company's Current Laws and Regulations | Once a year | The investigation was completed on August 5, 2025, resulting in the amendment of a total of 76 regulations. |
| | **Information Security** | Maintain international information security certifications. | ≈ | Successfully passed the independent validation loops in October. |
| | | Review and adjust information security strategies. | Convene formal Security Management Review Summits annually. | Convened the security management review summit in October. |
| | | Enhance main website availability and uptime. | Complete 1 penetration test and 2 network scans annually. | Completed all tests and successfully patched detected exposures. |
| | | Prevent malware and ransomware deployment. | Maintain real-time threat data links across WAF systems. | Automated WAF infrastructure signature links. |
| | | Ensure web infrastructure data backup and recovery resilience. | Conduct 1 comprehensive business continuity drill annually. | Completed validation drills in November. |
| | **Anti-corruption** | Hold anti-corruption training sessions | Complete at least 5 anti-corruption training sessions annually. | Conducted 13 anti-corruption workshops. |
| | | Automated WAF infrastructure signature links. | Conduct 1 formal orientation session for asset disclosures annually. | Held the formal compliance session in September. |
| | | Completed validation drills in November. | Conduct 1 training session on whistleblower laws annually. | Conducted the whistleblower protection information seminar in December. |

TWC has established a clear management mechanism to implement sustainable development plans. The implementation status will be tracked every six months, submitted to the Sustainable Development Committee for review, and reported to the Board of Directors to ensure that the plan's progress receives high-level attention and oversight. The implementation and revision of the plan must be resolved by the committee and approved by the board of directors before execution to maintain the plan's consistency and effectiveness. A complete PDCA (Plan-Do-Check-Act) management mechanism ensures that our sustainable actions are implemented on schedule and adjusted in a timely manner.

# 3.2 Climate and Net Zero Management

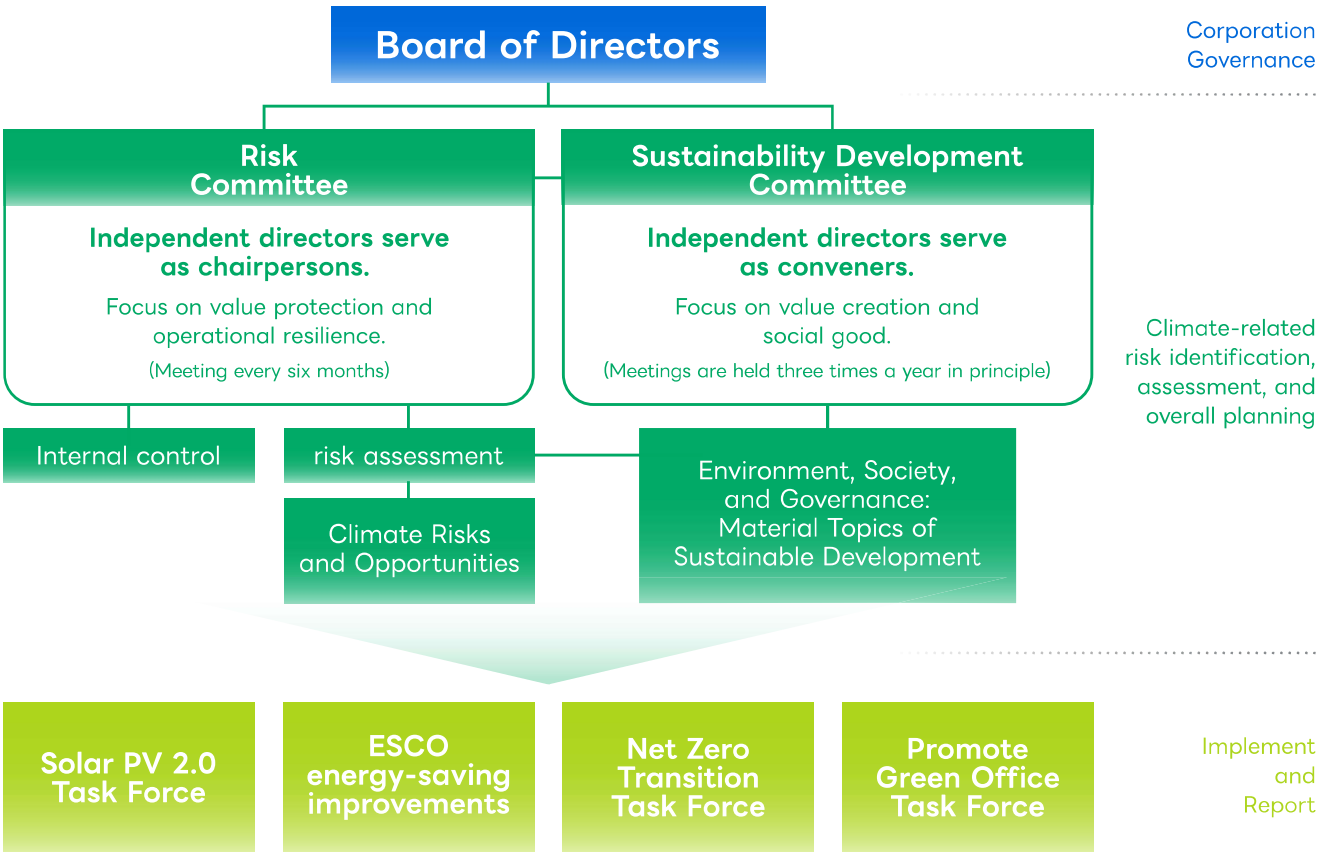
Over the past decade, climate change has evolved from a scientific and national governance discussion into a critical challenge impacting all corporate operations and commercial strategies. As a public utility, TWC's capacity to prepare for and adapt to climate change directly affects Taiwan's water infrastructure as well as the overall quality and resilience of our water supply. These operations hold significant influence over public livelihoods and broader industrial development across the nation. In response to Taiwan’ s 2050 net zero emissions target and global climate initiatives, TWC actively advances climate change management, mitigation, and strategic disclosures. Our goals focus on strengthening water supply resilience while fulfilling national net zero policies. The Task Force on Climate-related Financial Disclosures (TCFD) framework has become a premier global standard for corporate sustainability disclosure and is increasingly required by financial regulatory bodies. Although TWC is not a publicly listed corporation in Taiwan, we are committed to proactively managing and disclosing climate-related data. Aligning with TCFD recommendations and IFRS disclosure requirements, we have conducted preliminary assessments based on the boundary and scope of this sustainability report. Through these efforts, we aim to enhance the validity of our sustainability disclosures, foster public trust, embed robust internal climate management practices, and improve our operational resilience against climate challenges.

## 3.2.1 Climate Governance and Strategy

Effective climate governance serves as the foundation for addressing climate risks. TWC establishes its framework on professional expertise and a clear division of responsibilities. The Board of Directors serves as the highest executive governing body, overseeing strategic business decisions and risk management strategies. Dedicated committees coordinate and plan initiatives related to climate change, sustainability, and corporate risk.

Regarding climate change operations, the Chairman acts as a supervising and guiding authority and serves as the supervisor on the Risk Management Committee. The President serves as the Chairman of this committee, with the Vice President overseeing the Department of Planning acting as Vice President. The Department of Planning serves as the secretariat, coordinating discussions, reporting, and implementation across relevant business units, which are then executed and tracked by respective departments. In 2026, this system was restructured into a functional committee under the Board of Directors. While the Chairman retains a supervisory role, independent directors and supervisors elect an individual to serve as the Chairman and Convener of the committee. This stratified governance model and professional division of labor strengthen TWC's climate governance capabilities. The overall climate governance framework is illustrated in the diagram below.

## ▼ 2026 TWC Climate Governance Structure

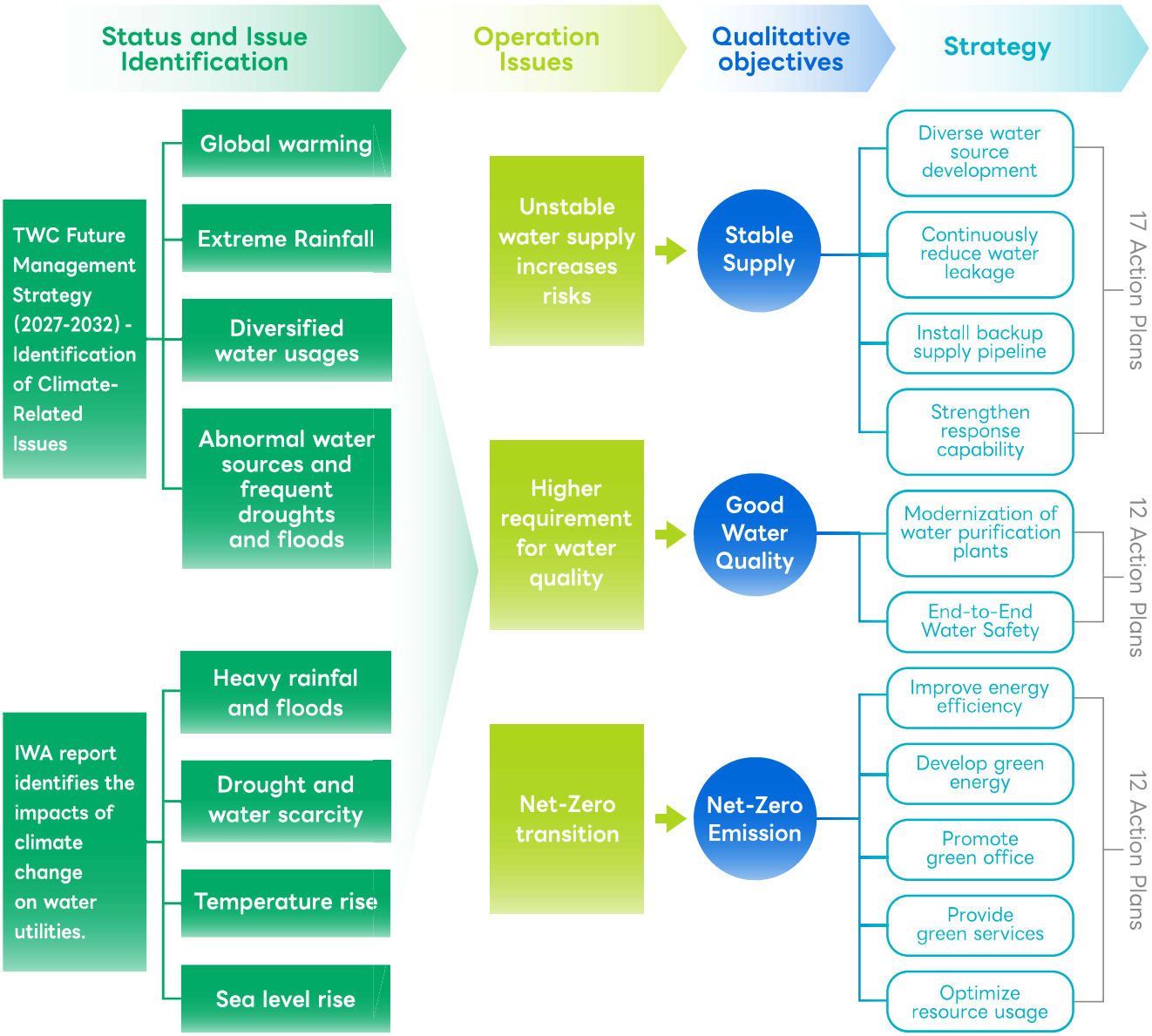



To address specific climate issues, TWC has established several cross-departmental, task-oriented organizations under executive management. These include the Net Zero Transition Task Force, the Solar PV 2.0 Task Force, the ESCO Promotion Task Force, and the Green Office Promotion Task Force. Among these, the Net Zero Transition Task Force is directly responsible for administering and executing carbon reduction and net zero strategies.

Originally established in April 2022 as the Carbon Reduction and Net Zero Emissions Project Task Force, the group was renamed the Net Zero Transition Task Force in January 2024 to align with national policy directions. Since January 2025, it has been chaired by the Chief Sustainability Officer (CSO) and is composed of representatives from 9 specialized departments: Department of General Affairs, Department of Business, Department of Water Loss Management, Department of Industrial Safety and Environment Protection, Department of Information Management, Department of Public Works, Department of Finance, Department of Water Supply, and the Department of Planning. By reviewing professional technologies, site spaces, and current facility/equipment configurations across all departments—and aligning with the greenhouse gas reduction targets set by the Ministry of Environment—the task force adopts a strategic framework of "Low-Carbon First, Zero-Carbon Second" and "Pilot Demonstration Before Full Implementation". Five core strategies have been formulated to track annual action items and carbon mitigation performance.

TWC's "Future Business Strategies" incorporate water supply risks driven by climate change into the corporation's operational risk identification framework. Responsive actions and strategies are developed, submitted to the Ministry of Economic Affairs for approval, and reviewed and updated annually.

## ▼ TWC Climate Strategy Framework




## ● 3.2.2 Climate Risk and Management

Standing at the forefront of residential and industrial water supply, TWC collaborates closely with the Water Resources Agency (WRA) of the Ministry of Economic Affairs to identify and manage water-supply capacities and operational risks. Climate risk identification has been integrated into our broader enterprise risk assessment framework. Following internal data analysis, expert consultation, and intra-departmental discussions, the Risk Management Committee finalizes the corporate climate risk matrix. Action items are then assigned to relevant departments for implementation and monitoring.

The climate-related risks, opportunities, and potential impacts identified in this report are outlined in the tables below. TWC will continue to enhance its risk identification processes, aiming to build a comprehensive climate risk assessment framework that strictly complies with TCFD recommendations and IFRS disclosure standards, while quantifying financial impacts to establish a solid foundation for sustainable corporate operations.

## ▼ TWC Climate Risk Identification Process

| Stage | Process | Description |
|---|---|---|
| 1 | Information Collection | Screen risks and opportunities based on global sustainability trends and internal operations. Inputs are drawn from climate discussions during sustainability training sessions, TWC business strategy formulation, and external expert recommendations to identify the core components of each risk factor. |
| 2 | Identification & Analysis | Classify risk categories and dimensions. Analyse the contributing conditions of each risk alongside its operational scope, time horizons, and impact formats, using climate scenario models as reference. |
| 3 | Risk Assessment | Gauge probability and impact severity via a climate risk matrix. Evaluate baseline risks alongside varying impact degrees under distinct climate scenarios to isolate material climate risks. |
| 4 | Financial Impact Assessment* | Conduct cross-departmental reviews and technical analyses to evaluate the quantitative financial implications of individual climate risks on TWC's long-term operations. |
| 5 | Review & Rolling Adjustments* | Present results to the TWC Risk Management Committee and executive teams for confirmation and regular updates. The Risk Management Committee approved the finalized climate risk indicators on April 27, 2026. |

*Note: TWC plans to fully mature its climate risk management and financial impact analysis by 2027.

Because climate change trends will vary based on current global mitigation pathways, scenario analysis is widely used to identify variations in individual risk factors. TWC references data from the World Bank' s Climate Change Knowledge Portal and the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP). Assessments follow the primary Shared Socioeconomic Pathways (SSPs) defined in the IPCC Sixth Assessment Report (AR6), integrating ambient and socioeconomic variables to isolate localized operational risks.

## ▼ Climate Change Scenarios & Potential Impacts on TWC Operations

| Climate Indicator | Impact Item | Year | SSP2-4.5 (Medium Emissions) | SSP3-7.0 (High Emissions) | SSP5-8.5 (Worst Case) | Potential Impacts on TWC Operations |
|---|---|---|---|---|---|---|
| Annual Mean Temperature | Relative to 1995–2014 baseline | 2030 | +0.7°C | +0.8°C | +1.1°C | • Increased evaporation accelerates natural reservoir water loss.<br>• Elevated risk of algal blooms in water sources increases water treatment costs.<br>• Rising energy demands disrupt water supply dispatching, impacting hydropower balances and increasing power costs. |
| | | 2050 | +1.2°C | +1.4°C | +1.6°C | |
| Extreme Heat Days | Daily Max Temp > 36°C | 2030 | +4 to 8 days | +6 to 10 days | +10 to 15 days | • Summer peak water consumption strains water supply distribution networks.<br>• Prolonged thermal exposure shifts pipeline conditions, elevating water leakage rates. |
| | | 2050 | +15 to 25 days | +30 to 45 days | +50 to 65 days | |

| Climate Indicator | Impact Item | Year | SSP2-4.5 (Medium Emissions) | SSP3-7.0 (High Emissions) | SSP5-8.5 (Worst Case) | Potential Impacts on TWC Operations |
|---|---|---|---|---|---|---|
| **Extreme Rainfall Intensity** | Variable Precipitation Rate | **2030** | +10% to 15% | +12% to 18% | +15% to 22% | • Spikes in raw water turbidity require larger chemical inventory reserves.<br>• Severe rainfall triggers sediment flushing tunnel erosion or mudslides, damaging water intake stations, transmission lines, and distribution networks. |
| | | **2050** | +20% to 30% | +35% to 40% | +45% to 55% | |
| **Consecutive Dry Days** | Annual Maximum Dry Period | **2030** | +3 to 5 days | +5 to 8 days | +8 to 12 days | • Winter-spring water shortages become structural norms, requiring early activation of backup wells.<br>• Frequency of severe water shortages doubles.<br>• Heightened operational conflict between reservoir supply management and hydropower generation demands. |
| | | **2050** | +7 to 12 days | +15 to 20 days | +25 to 35 days | |
| **Sea Level Rise** | Relative to early 21st century | **2030** | +10 to 15 cm | +12 to 18 cm | +15 to 20 cm | • Saline intrusion into coastal aquifers (e.g., Changhua, Yunlin) affects pumping station availability, pipeline integrity, and infrastructure maintenance. Net operational impact remains minor. |
| | | **2050** | +20 to 30 cm | +25 to 40 cm | +35 to 50 cm | |

The climate risks and opportunities currently identified by TWC through the Risk Management Committee are detailed in the tables in Page 123. We use a climate risk matrix to prioritize mitigation strategies and ensure a resilient operational response.

### ▼ TWC Climate Risk Matrix

| Financial Impact Severity | Likelihood: Low (1) | Likelihood: Medium-Low (2) | Likelihood: Medium (3) | Likelihood: Medium-High (4) | Likelihood: High (5) |
|---|---|---|---|---|---|
| Critical (5) | | | | | |
| Major (4) | | | | **Risk 9:** Energy price inflation | **Risk 2:** Typhoon/flood infrastructure destruction |
| Moderate (3) | | **Risk 10:** Public mistrust from unmitigated climate impacts | **Risk 6:** Demand surge exceeding supply capacity | **Risk 4:** Drought-driven raw water shortages | **Risk 1:** Raw water turbidity spikes from intense |
| Minor (2) | **Risk 3:** Workplace safety impacts | | **Risk 5:** Water source eutrophication | **Opp 11:** Renewable energy revenue & low-carbon image | **Risk 8:** Compliance costs from weak GHG management |
| Insignificant (1) | | | | **Risk 7:** Regulatory compliance penalties | |

## ▼ TWC Climate-Related Financial Risks and Opportunities Breakdown

| No. | Type | Risk / Opportunity | Category | Sub-type | Horizon | Probability | Potential Financial / Operational Impact |
|---|---|---|---|---|---|---|---|
| 1 | **Extreme Weather** | Raw water turbidity spikes from intense rainfall | Physical Risk | Acute | Short, Medium, Long | High | **Revenue Reduction:** Treatment capacity ceilings force supply cutbacks or temporary shutdowns. **Increased Expenditures:** Spikes in chemical dosing costs; reservoir sedimentation curtails capacity, driving up dredging expenses. |
| 2 | **Extreme Weather** | Typhoon & flood infrastructure destruction | Physical Risk | Acute | Short, Medium, Long | High | **Revenue Reduction:** Infrastructure failure causes widespread water supply interruptions. **Asset Loss:** Flooding damages water treatment plants, intake stations, and pumping stations. **Capital Expenditures:** Post-disaster reconstruction and flood-defense retrofits strain capital budgets. |
| 3 | **Extreme Weather** | Workplace safety & employee health | Physical Risk | Chronic | Medium, Long | Low | **Increased Expenditures:** Severe heatwaves increase labor insurance, safety gear, and administrative oversight costs. Climate disruptions delay engineering timelines, driving up construction costs. |
| 4 | **Extreme Weather** | Drought-driven raw water shortages | Physical Risk | Acute | Short, Medium, Long | Med-High | **Revenue Reduction:** Rationing or pressure reductions decrease ercentage of revenue water. **Increased Expenditures:** Powering backup wells and implementing emergency cross-regional water transfers increases power cost. Additionally, it may increase compensation for drought-induced fallow land. **Capital Expenditures:** Emergency intake installations and deep backup well drilling require capital allocations. |
| 5 | **Temperature Rise** | Water source eutrophication | Physical Risk | Chronic | Medium, Long | Medium | **Increased Expenditures:** Additional chemical treatment volumes drive up operational costs. **Revenue Reduction:** Treatment difficulties constrain total water supply output. **Capital Expenditures:** Advanced upgrade filtration equipment is required. |

| No. | Type | Risk / Opportunity | Category | Sub-type | Horizon | Probability | Potential Financial / Operational Impact |
|---|---|---|---|---|---|---|---|
| 6 | **Temperature Rise** | Demand surge exceeding supply capacity | Physical Risk | Chronic | Medium, Long | Medium | **Revenue Reduction:** Unplanned supply outages trigger statutory basic fee waivers. **Increased Expenditures:** Purchasing raw water from external agencies or using power-heavy supply networks increases power costs. Failure to meet standard industrial demands might invoke legal feedback protocols. **Capital Expenditures:** Heavy forward capital flows are needed to build desalination plants and alternative source structures. |
| 7 | **Climate Change Management Policy** | Regulatory compliance penalties | Transition Risk | Legal and Policy | Medium, Long | Med-High | **Increased Expenditures:** Building administrative workflows to meet strict mandates under the Climate Change Response Act incurs compliance costs and penalty risks. |
| 8 | **Greenhouse gas regulations and costs of carbon taxes and carbon fees** | Weak GHG management capabilities leading to additional | Transition Risk | Legal and Policy | Medium, Long | High | **Increased Expenditures:** Higher administrative outlays for third-party auditing, reporting software, and carbon fees/taxes. |
| 9 | **Energy Price** | Energy price inflation | Transition Risk | Tech | Short, Medium, Long | Med-High | **Increased Expenditures:** Power costs spike. Because water treatment and distribution networks depend heavily on electricity, tariff hikes strain operating margins. **Capital Expenditures:** Requires investment in on-site renewable energy systems or purchasing green certificates. |
| 10 | **Reputation** | Public mistrust from unmitigated climate impacts | Transition Risk | Reputation | Long | Med-Low | **Restricted Revenue:** Public pushback slows water tariff adjustments, limiting long-term revenue growth. **Obstructed Funding:** Negative public or political perception slows legislative budget reviews, hindering construction timelines. |
| 11 | **Renewable Energy** | Green reputation & renewable energy revenue | Opportunity | Tech | Short, Medium, Long | Med-High | **Revenue Growth:** Income generated from selling renewable energy or leasing land assets. **Capital Acquisition:** Deploying solar PV and small hydropower systems across corporate facilities curtails external power purchasing. **Expenditure Reduction:** Lowers baseline grid utility expenses. |

# Climate Risk Assessment Threshold

## Probability Rating

| Rating | Rating | Rating |
|---|---|---|
| 5 | High | Definition: Already occurring or expected to occur regularly<br>Probability: ≥ 70% ~ 90% or higher<br>Briefing: Historical data indicates high frequency under mature baseline conditions. |
| 4 | Medium-High | Definition: Highly probable or aligned with general trends<br>Probability: 50% ~ 70%<br>Briefing: Documented frequently under specific conditions. |
| 3 | Medium | Definition: Likely to occur<br>Probability: 30% ~ 50%<br>Briefing: Occurs occasionally; carries inherent uncertainties. |
| 2 | Medium-Low | Definition: Unlikely but possible<br>Probability: 10% ~ 30%<br>Briefing: Requires precise localized conditions to manifest. |
| 1 | Low | Definition: Rare or highly unexpected<br>Probability: ≤ 10%<br>Briefing: Requires extreme, historically unprecedented anomalies. |

## Financial Impact Assessment

| Rating | Impact | Financial & Operational Threshold |
|---|---|---|
| 5 | Critical | Financial impact exceeds annual net profit or operating expenses by >10%, or impacts >10% of capital assets. Causes prolonged nationwide water supply disruptions, severe regulatory penalties, or irreversible brand damage. |
| 4 | Major | Impact reaches 5%-10% of net profit, expenses, or assets. Core treatment facilities experience severe structural damage, requiring large-scale emergency capital outlays. |
| 3 | Moderate | Impact reaches 1%-5% of net profit, expenses, or assets. Opera-tional expenditures (power, chemicals) spike significantly, forcing localized water restrictions. |
| 2 | Minor | Impact remains <1% of annual net profit or expenses. Financial impacts are fully absorbed by annual budget buffers; causes short-term, localized service volatility. |
| 1 | Insignificant | No measurable financial impact. Addressed via internal workflow optimizations or routine administrative adjustments within current budgets. |

Note 1 : For baseline reference, TWC' s audited 2025 financial figures recorded Total Revenues at NT$ 35.1 billion, Total Operating Expenditures at NT$ 40.2 billion, and Capital Expenditures (Property, Plant, and Equipment) at NT$ 28.2 billion.

Note 2 : Financial impact thresholds remain provisional pending formal confirmation by the Risk Management Committee and will be optimized to reflect the materiality of climate impacts over time.

## 3.2.3 Climate Actions, Indicators, and Targets

### A. Net Zero Carbon Emission

Through the Net Zero Transition Task Force, TWC coordinates, tracks, and adjusts corporate climate performance indicators against national milestones. Collaborating with specialized asset branches, we advance our net zero roadmap to systematically lower total greenhouse gas emissions. In accordance with the Ministry of Environment targets, TWC has structured its reduction phases as follows. As of December 2025, TWC achieved an estimated carbon reduction volume of 100,704 metric tons of $CO_2e$, marking a 102.51% target fulfillment rate.

### ▼ TWC Net Zero Strategies, Action Items, and Targets

| Strategy | Net Zero Approach | Target and Action | 2025 Performance | Carbon Reduction ( $tCO_2e$ ) | | |
|---|---|---|---|---|---|---|
| | | | | 2025 (Achieved) | 2026 (Target) | 2030 (Target) |
| **Improve Energy Efficiency** | ESCO Energy-Saving Projects | Perform ESCO audits and opti-mization across major high-consumption pump facili-ties. | Completed ESCO retrofits across 43 high-consumption facilities; 5 units issued verified performance reports. Saved 2.776M kWh. | 13,518[1,2] | 4,775 | 11,097 |
| | Energy-Efficient Green Buildings | Construct and retrofit office buildings around ecological, low-waste, and energy-saving designs. | Completed management centers at Qimei, Jibei, Shan-shang, Zengwen, and Pingtung Chaozhou operation site. | 17 | 35 | 380 |
| **Develop Renewable Energy** | Solar PV Infrastructure | Mount solar arrays across water treatment plants, booster station, idle lands, and rooftops. | Installed 2,143.69 kW across 6 water intake sites; 229 kW across 2 facility rooftops. | 47,170 | 38,746 | 64,187 |
| | Small Hydropower Systems | • Install 8 facilities totaling 5,390 kW by 2027<br>• Feasibility study and site identification<br>• Invite private sector development partnerships. | Completed the 1,500 kW facility at the Hushan site (5th Branch). | 4,297 | 8,156 | 11,504 |
| | On-site Renewable Energy Systems | Drive local decarbonization via self-generation, wheeling struc-tures, and green power pur-chasing. | Activated a 1,415 kW on-site renewable system at the Fengshan Water Treatment Plant. | 839 | 807 | 5,011 |

| Strategy | Net Zero Approach | Target and Action | 2025 Performance | Carbon Reduction ( $tCO_2e$ ) | | |
|---|---|---|---|---|---|---|
| | | | | 2025 (Achieved) | 2026 (Target) | 2030 (Target) |
| **Promote Green Office** | Office Decarbonization | Upgrade outdated air condi-tioning units to energy-efficient models with rigorous load management. | Replaced 254 commercial air conditioning units. | 359 | 336 | 544 |
| | Low-Carbon Fleet Transition | Systematically phase out old fleet vehicles for low-emission options and electric scooters. | Retired 60 combustion cars and 62 con-ventional motorcycles. | 297 | 392 | 774 |
| | IT Infrastructure Optimization | • Transition physical servers to virtual setups to cut cooling costs;<br>• Shift to video conferencing. | • Maintained 270 virtual hosts on 26 physical servers;<br>• Held 1,865 video conferences<br>• Replaced 18 legacy servers and 750 PCs. | 786 | 714 | 731 |
| | Paperless Office Operations | Implement digital documentation systems and online administrative workflows. | Processed 1,208,105 electronic official documents and 11,615 digital administrative forms. | 28 | 23 | 25 |
| **Provide Green Services** | Paperless Billing Services | Accelerate e-billing enrollment rates across commercial and residential customer bases. | Secured 1.685M active e-bill registrations. | 77 | 81 | 102 |
| | Counter Paperless Focus | Digitalize public-facing counters and streamline back-end data-base links. | Processed 283,561 paperless applications. | 4 | 4 | 4 |
| **Improve Green Production & Resource Recovery** | Water Leakage Reduction | Execute the corporate multi-year leakage control master plan. | Decreased corporate water leakage rate to 11.52% by December 2025. | 58,463 | 48,821 | 51,845 |
| | Sludge Resource Recovery | • Research on the reuse of wastewater treatment sludge cake<br>• Promote the circular economy<br>• Environmental regulations compliance | • Reduced landfill waste by 32 metric tons;<br>• Planning Penghu recovery once certified local partners are available. | 10 | 10 | 10 |
| | Tree Planting & Sequestration | Conduct landscaping and affor-estation across reservoirs, stations, and office zones. | Maintained 279.29 hectares planted pre-2024; added 4.4 hectares at the Cao-tun Water Treatment Plant. | 2,744 | 2,744 | 2,861 |
| | AI Precision Chemical Dosing | Optimize chemical treatment via automated data gathering and real-time water quality analysis. | Maintained system at Qingzhou plant; outsourcing research for the Zengwen treatment plant system. | 3 | 6 | 6 |
| **Total** | | | | **100,704** | **105,648** | **149,081** |

Note 1: Reduction data are internal estimates based on IPCC AR6 guidelines and national electricity emission factors. Formal data verification will follow full corporate carbon inventories. See report appendix for underlying calculation assumptions.

Note 2: Temporary emissions increases may occur due to policy-mandated regional water dispatching that drives up pump station power use.

## B. Water Supply Resilience and Infrastructure Plans

Beyond carbon reduction, establishing a climate-resilient water supply network remains a core priority for TWC. We have structured 4 primary strategies encompassing 29 critical action plans. Key strategies are backed by long-term capital budgets: NT$ 63.4 billion for Leakage Reduction, NT$ 33.2 billion for Diversified Water Source Development, and NT$ 28.7 billion for Backup Transmission Pipelines. These multi-year projects are funded through internal TWC budgets alongside matching government investments.

### ▼ TWC Water Supply Resilience Strategy & Action Map (2027–2032)

| Strategy | Approach | Target and Action | Key Action and Program | Expected Outcome | Budget (NT$) |
|---|---|---|---|---|---|
| **Diversify Water Source Devel-opment** | New Water Sourcing | • Continuously develop new water sources and make good use of stream water supply capacity and surplus water during the high-water season.<br>• Reduce groundwater extraction to slow the existing subsidence | Wu River Surface & Hyporheic Water Project (Phase II) | Secure up to 100,000 $m^3$/ day in extraction capacity; curtails groundwater reliance to mitigate land subsidence. | **200,000,000** |
| | Ensure Supply | • Strengthen the development of artificial lakes and underground watercourses in plains areas<br>• Cooperate with the Ministry of Economic Affairs to develop seawater desalination plants | Hsinchu Desalination Plant Project (Government Agency Mandate) | Supply 100,000 $m^3$/day of fresh water directly to the Hsinchu in-dustrial and municipal grid. | **12,000,000,000** |
| | | | Tainan Desalination Plant Project (Government Agency Mandate) | Supply 100,000 $m^3$/day of fre sh water directly to the Tainan in-dustrial grid. | **16,000,000,000** |
| | | | Islands Water Supply Im-provement Project (Phase III) | Construct a desalination facility in Penghu with a design output of 4,500 $m^3$/day. | **500,000,000** |
| | | | Raw & Clear Water Pur-chasing Initiative | Stabilize base municipal and in-dustrial water allocations during dry seasons. | **4,450,000,000** |
| **Keep Leakage Reduction** | Leakage Control | Focus on leakage reduction and pipeline asset maintenance, ap-plying engineering over mainte-nance based on local conditions. | Water Leakage Rate Re-duction Master Plan (2025–2032) | Bring the national water leakage rate down to a maximum of 9.77% by 2032. | **63,412,000,000** |

| Strategy | Approach | Target and Action | Key Action and Program | Expected Outcome | Budget (NT$) |
|---|---|---|---|---|---|
| **Keep Leakage Reduction** | Improve Inspection and Repair Workflows | • Enhance response capabilities for pipe rupture and leak repair<br>• Introduce new leak detection methods and technologies<br>• Cultivate talent and establish fundamental capabilities<br>• Conduct safety assessments of critical pipelines | Main Transmission Safety Assessment & Rapid Re-pair Program | Maintain system availability and minimize water asset losses and public grievances. | **Annual budget** |
| | | | Leakage Detection Tech-nical Training Initiative | Enhance fundamental field leak identification capacities. | **Annual budget** |
| | | | Advanced Leak Detection Technology Deployment Project | Improve efficiency and quality of on-site leak mitigation. | **Annual budget** |
| | | | Major Pipeline Safety Evaluation Project | Maintain continuous grid stability and mitigate accidental losses. | **Annual budget** |
| **Establish Backup Transmission Pipelines** | Construct and Improve Backup Pipeline | Evaluate cross-regional dispatch capabilities to deploy backup lines and bolster total resource man-agement frameworks. | Backup Transmission Pipeline Projects: Deploy 17 backup lines spanning 83 km across regional boundaries. | Improve regional supply elasticity, mitigate main line pressure vul-nerabilities, and secure network redundancy. | **19,950,000,000** |
| | | | Taichung–Yunlin Regional Interconnection Im-provement | Stabilize the interconnected sup-ply matrix between Taichung and Yunlin networks. | **5,880,000,000** |
| | | | Sanchong–Luzhou Distri-bution Optimization (Phase I) | Introduce an additional 65,000 $m^3$/day of Xindian River surface water to the area by 2028. | **2,853,000,000** |
| **Improve Emergency Response Capabilities** | Improve Incident Management | Optimize emergency water station response capacities, backup power systems, and disaster response drills.<br>Conduct emergency drills. | Water Supply Facility Emergency Backup Power Program | Maintain continuous pumping station power stability and treatment safety throughout ty-phoon seasons. | **Annual budget** |
| | | | Emergency Water Supply Response Exercise Initia-tive | Perfect the disaster response network and bolster recovery ac-tions. | **Annual budget** |
| | Improve Disaster Recovery | Optimize resilience against natu-ral disasters, mobilizing contrac-tors, equipment, and technicians. | Disaster Area Infrastruc-ture Reconstruction Plan | Accelerate system recovery fol-lowing major earthquakes or floods to minimize disaster im-pact. | **370,000,000** |
| | Improve emergency material preparation | Maintain backup component re-serves. | Emergency Repair Inven-tory Optimization Project | Secure emergency parts availa-bility to minimize repair timelines. | **Annual budget** |

| Strategy | Approach | Target and Action | Key Action and Program | Expected Outcome | Budget (NT$) |
|---|---|---|---|---|---|
| **Modernization of Water Treatment Plants** | Equipment Upgrades | Allocate phased budgets for filtra-tion component retrofits based on asset priorities and historical per-formance. | Legacy Water Treatment Equipment Modernization Plan | Maintain nameplate plant capac-ity while reducing structural wa-ter losses during treatment. | **Annual budget** |
| | Water Treatment Facility Expansion | Construct and expand treatment plants based on municipal growth trends and national strategic blueprints. | Taoyuan Aerotropolis Supply Network Program | Decrease chronic water pressure deficiencies and supply volatility across Dayuan and Haihu sub-zones. | **360,000,000** |
| | | | Fengyuan Plant (Phase I & II) Reconstruction Project | Realize an active water sales volume of 16.2 million $m^3$/ year upon project completion. | **1,805,000,000** |
| | | | South Taichung Water Treatment Plant Project | Boost standard daily water supply volume across the South Taichung metropolitan area. | **2,729,000,000** |
| | | | Guanxi Plant & Xinpu Distribution Hub Mod-ernization | Upgrade treatment facilities at the Guanxi plant to improve wa-ter quality for the Xinpu district. | **1,158,000,000** |
| **End-to-End Water Safety** | Enhance Water Inspection equipment | Maintain and swap out instru-mentation loops (raw, clear, dis-tributed, and effluent water). | Water Quality Monitoring Instrumentation Lifecycle Program | Strengthen automated monitoring across lines to minimize manual sampling frequencies. | **Annual budget** |
| | Improve drinking water sources and quality management | Integrate WSP criteria with OPEE metrics and the Water Quality Alarm Platform (WQAP); expand testing limits for emerging contaminants.<br>• Eliminate water source pollution<br>• Water treatment plan modernization<br>• Network modernization<br>• Ensure customer trust | Water Safety Plan (WSP) Realization | Mitigate water risks from source to tap through modern risk as-sessment matrices. | **Annual budget** |
| | | | Strengthening Water Quality Safety Manage-ment for Emerging Con-taminant Controls | Build monitoring baselines and verify handling procedures to guarantee clean water. | **Annual budget** |
| | | | Enhancing Drinking Water Quality Management | Build monitoring baselines and verify handling procedures to guarantee clean water. | **Annual budget** |

| Strategy | Approach | Target and Action | Key Action and Program | Expected Outcome | Budget (NT$) |
|---|---|---|---|---|---|
| **End-to-End Water Safety** | Improve Water Quality Management System | Introduce digital database sys-tems.<br>Laboratory Information Manage-ment System (LIMS) & WQAP In-tegration Project<br>Maintain strict alignment with regulations, publish water quality metrics, and eliminate human en-try errors. | Strengthen water quality information management (water quality testing in-formation management system, water quality warning platform) | Maintain strict alignment with regulations, publish water quality metrics, and eliminate human en-try errors. | **Annual budget** |
| | Watershed Protection | • Reservoir catchment area conservation<br>• Reservoir catchment emergency treatment projects<br>• Management of tap water quality and quantity protection zones | Strengthening water catchment area conserva-tion, management and pollution prevention plans | Implement management of tap water quality and quantity pro-tection zones | **300,000,000** |

## 3.2.4 Outlook for Climate Change Action

Guided by our core philosophy—"It is the small flows that form the great ocean"—TWC actively pursues carbon mitigation across all operational facets. While past sustainability figures relied on internal self-assessments, TWC is enhancing the credibility of its disclosures by launching a third-party corporate carbon inventory pilot at our 5th Branch. This pilot will serve as a template for a comprehensive, scientifically validated greenhouse gas inventory across all corporate operations. For renewable energy, TWC will continue utilizing its facilities to deploy solar PV and small hydropower arrays in partnership with specialized clean-energy developers. Moving forward, we aim to increase our share of on-site self-consumption to lower the carbon intensity per metric ton of water supplied—ensuring we power clean water with clean energy.

In terms of climate resilience, TWC has many long-term investment plans and works with the Water Resources Agency and other relevant authorities to continuously strive in various aspects such as developing water resources, strengthening pipeline resilience, and reducing leakage. Regarding the climate risk assessment results, TWC has taken action and invested budget in response to the top five key risks: "damage to infrastructure by strong typhoons and floods," "rising energy prices," "surge in raw water turbidity due to heavy rainfall," "raw water shortages due to drought," and "increased water demand exceeding supply capacity," to safeguard the quality and performance of the water supply for the people of Taiwan.

TWC will continue to accelerate its implementation of international climate reporting trends. By blending qualitative risk frameworks with quantitative financial impact modeling, we aim to improve our scenario-based impact forecasting. This structured approach will support clear communication with our stakeholders and guide our long-term capital investments toward climate adaptation.

# 3.3 Nature Risks and Positive Action

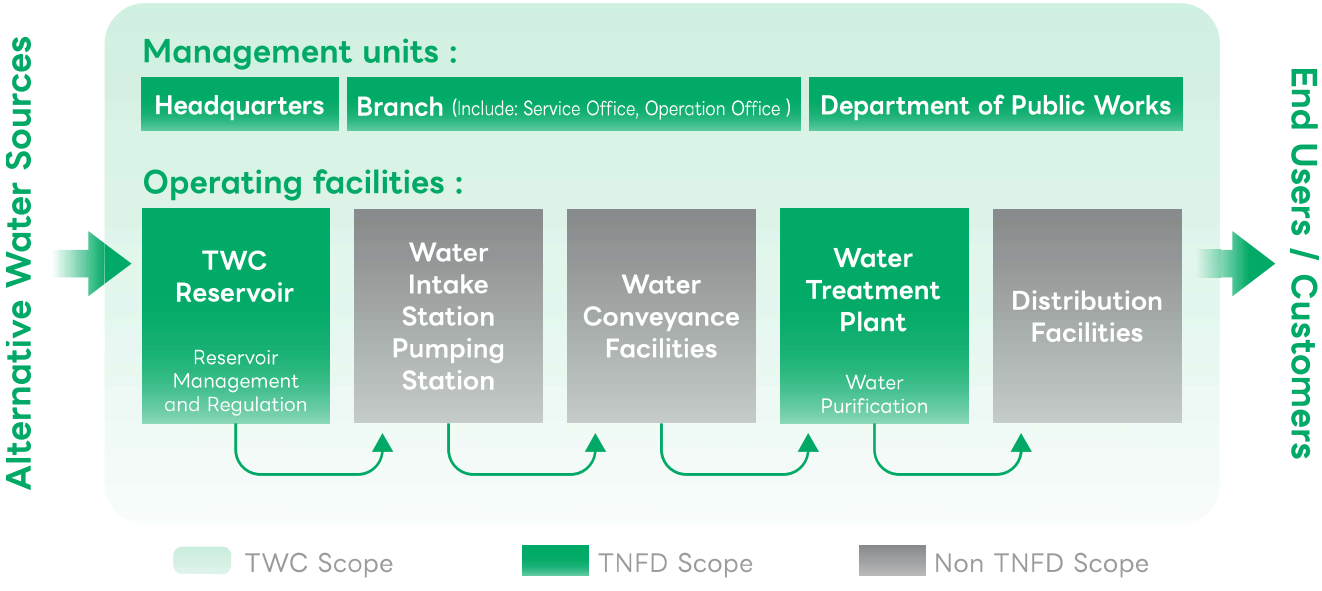
As environmental issues such as climate change, natural resource depletion, and biodiversity loss become increasingly severe, the loss of natural capital is not merely an environmental externality but a potential financial risk and opportunity for businesses. These nature-related risks can directly impact a company's operations, supply chain, and sustainable development. The internationally recognized Taskforce on Nature-related Financial Disclosures (TNFD) aims to facilitate the assessment of nature-related risks and opportunities by businesses and financial institutions, integrating natural capital information into corporate decision-making processes and disclosures. TWC's operations are highly dependent on natural resources—particularly water—and the environmental conditions that support them. The natural conditions of reservoirs and catchment areas directly affect water purification and supply capabilities, and public awareness and concern over these issues continue to grow. Therefore, this report continues to reference the TNFD's LEAP approach to evaluate and disclose information regarding TWC's operations and nature-related financial risks for stakeholder communication.

## 3.3.1 Nature-Related Operational Scope

### A. Definition of Operational Activities

As explained in Chapter 1 of this report, TWC's water supply operations begin at the raw water source, which includes reservoirs and storage facilities managed by TWC, the Taipei Water Department, the Irrigation Agency, and various regional Water Resources Agencies. Raw water is extracted through TWC's intake structures or pumping stations and conveyed via transmission infrastructure to TWC's water treatment facilities for processing. Once treated, clear water is delivered through distribution infrastructure to municipal or industrial distribution reservoirs, where it is made available for end users. TWC's overall operational scope encompasses administrative units such as the Headquarters, Branches, and Engineering Offices, as well as physical infrastructure including reservoirs, water intake facilities, transmission pipelines, water treatment facilities, and distribution networks, as illustrated in the figure below.

▼ TWC Jurisdictional Boundaries and Nature-Related Scope of Assessment



### B. Nature-Related Units and Facilities

This report provides a preliminary assessment of the interaction interfaces between TWC's operational units and facilities and the natural environment, as illustrated in Figure in page 132 above. The impacts of TWC's operational scope locations on nature are described in Table below; the facilities and related locations cover a wide range. Based on the principle of materiality, this report focuses its TNFD analysis on "reservoirs" under TWC's jurisdiction and "water treatment facilities with a daily output capacity of 200,000 cubic meters (CMD) or more."

#### ▼ Locations Included in the Nature-Related Risk Assessment

| Facility / Unit | Nature-Related Interface and Impact | Assessment Inclusion Criteria |
|---|---|---|
| **Reservoirs** | Reservoirs and water treatment facilities have high operational intensity and a broader impact scope. Reservoir operations primarily include regulating water levels, desilting and sediment flushing, and catchment area management. Some reservoirs also serve tourism and recreational purposes.<br>Reservoirs themselves are freshwater ecosystems and have complex interactions with surrounding forest or grassy vegetation environments. Water level fluctuations caused by reservoir operations may also affect the natural ecology. In the event of droughts or floods, water storage must be maintained within design limits as much as possible, requiring reservoirs to release floodwaters or flush sediment, which may have a more significant impact on downstream ecology. | 21 reservoirs managed by TWC |
| **Other Intake Facilities** (e.g., intake structures, pumping stations) | Water intake facilities are smaller in scale and become closed systems after construction, posing a minor impact on nature. For example, although transmission pipelines in mountainous areas may be located in mid-to-upstream catchment areas rich in ecological resources, their presence occupies only a small spatial footprint, and their operation does not emit pollution or consume natural resources. | Not included in the current assessment |
| **Water Treatment Plants** | The operation of water treatment plants is primarily to purify water quality to meet water supply purposes. Although water treatment facilities have limited interaction with the surrounding natural environment, the treatment processes consume energy and resources, potentially causing indirect environmental impacts.<br>This report will focus on water treatment facilities that process large volumes of water. | 17 water treatment plants with an output capacity of 200,000 CMD or more |
| **Distribution Network** | Distribution pipelines are critical infrastructure for transporting water resources. Both transmission and distribution pipelines have relatively limited envi-ronmental impact. Once constructed, they operate as closed systems with minimal interaction with external natural resources. | Not included in current assessment |
| **Administrative Units** | These are primarily office-based operational sites lo-cated in urban areas or within reservoir and treatment plant campuses. Their impact on natural ecosystems is limited. Activities mainly involve administrative func-tions, with environmental impacts such as water and electricity consumption, fuel use for commuting, and air emissions being relatively minor. | |

## ● 3.3.2 Nature-Related Resources of TWC

### A. Biodiversity

Biodiversity refers to the variety of life forms within a given ecosystem, encompassing species diversity (such as plants, animals, and microorganisms), genetic diversity (genetic variation within a species), and ecosystem diversity (such as forests, grasslands, wetlands, etc.). Biodiversity is essential for maintaining the stability and functionality of ecosystems and has profound implications for hu-man survival and well-being.

Regarding the two major categories of sites defined in the aforementioned scope, this report overlays publicly available geospatial data related to the environment and biodiversity. These include legally designated environmentally sensitive areas, biodiversity maps with defined boundaries (e.g., potential distribution maps), the Taiwan Ecological Network, and publicly available maps provided by NGOs. The

overlaps between each operational site and these environmentally sensitive areas, biodiversity zones, and areas of concern defined by the Taiwan Ecological Network are illustrated in Figure in page 135. The descriptions of these three major categories of environmental protection areas or other regions of high biodiversity value overlapping with TWC operational sites are as follows:

### ▼ Description of Geospatial Data for Nature-Related Risk Assessment Locations

| Category | Definition and Descrip-tion | Specific Subcategories Involved |
|---|---|---|
| **Biodiversity Areas** | Announced by natural competent authorities (e.g., the Forestry and Nature Conservation Agency, Ministry of Agriculture; Taiwan Biodiversity Research Institute) or NGOs, representing biological geospatial data with specific boundaries. | Critical Habitats and Buffer Zones for Threatened Plant Species Listed in the Red List, Potential Distribution Ranges for 49 Protected Terrestrial Vertebrate Species and 379 Terrestrial Vertebrate Species, Taiwan Important Frog Areas, Habitats and Distribution Areas of the Leopard Cat, Waterbird Hotspots from the eBird database, and Important Bird Area. |
| **Taiwan Ecological Network** | Executed by the Forestry and Nature Conservation Agency, Ministry of Agriculture, establishing analytical models for terrestrial and aquatic species to identify areas of concern and conserva-tion corridors. | Areas of Concern within the Taiwan Ecological Network (including rivers, agricultural irrigation channels, and ponds), Key Satoyama Landscapes, Bi-odiversity Hotspots, and Regional Conservation Corridors Within the Tai-wan Ecological Network. |
| **Environmentally Sensitive Areas** | Announced by various central competent authorities (e.g., the Minis-try of the Interior, Minis-try of Economic Affairs), regions subject to specific legal protection, re-strictions, or management. | Categories involving TWC sites include*: National Scenic Areas, Geoparks, Geo-logically Sensitive Areas for Groundwa-ter Recharge, Drinking Water Source Water Protection Area, and Reservoir Storage Zones. |

Note: As their establishment or designation is assessed to have lower relevance to biodiversity, they are currently included in the mapping data solely for reference at this stage. Further in-depth identification and analysis of their ecological risks may be conducted in the future.

Through overlay analysis using Geographic Information Systems (GIS), within the preliminary scope, TWC's reservoirs and 17 major water treatment plants intersect with 7 biodiversity mapping categories (A), 6 Taiwan Ecological Network categories (B), and 7 environmentally sensitive area categories (C). Since reservoirs are primarily located in upstream river basins or mountainous catchment areas—typically natural environments rich in biodiversity—and are larger in scale than water treatment plants, they involve a greater number and wider variety of these categories.

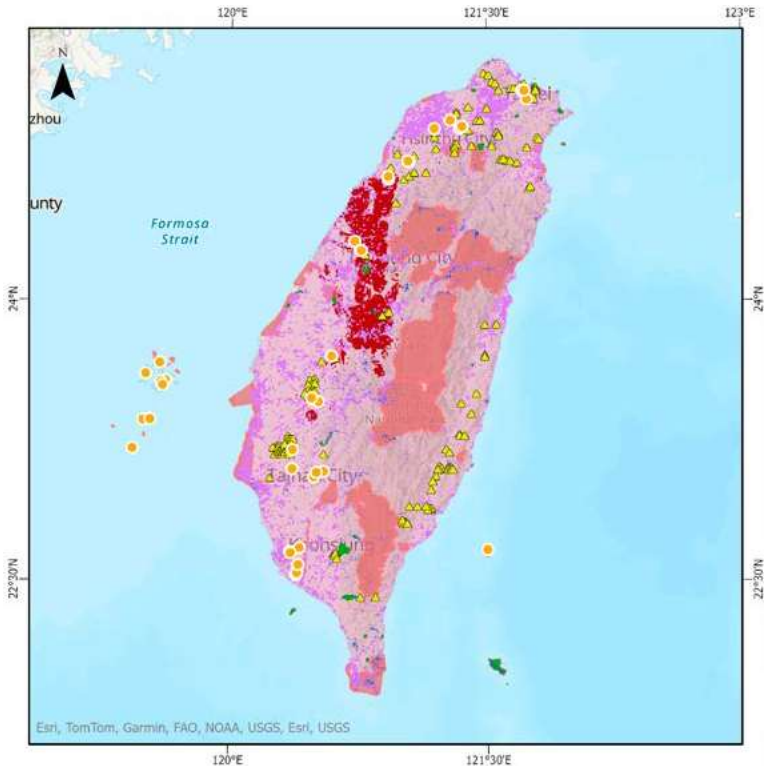
Overall, reservoir areas overlap more extensively with biodiversity-related zones, though these are mostly buffer zones or broad distribution ranges for protected species (such as Potential Distribution Ranges for Protected Terrestrial Vertebrate Species and Waterbird Hotspots). Notably, Lantan Reservoir in Chiayi intersects with Critical Habitats for Threatened Plant Species Listed in the Red List, while Baoshan Reservoir in Hsinchu and Yongheshan Reservoir in Miaoli overlap with Leopard Cat Conservation Areas. For water treatment plants, as they are mostly located in developed areas and operate as closed artificial structures, the primary biodiversity-related zones they intersect with are general, broad-scale potential species distribution areas. However, Fengyuan No. 1 and No. 2 Water Treatment Plants in Taichung overlap with Leopard Cat Conservation Areas; Hushan Water Treatment Plant in Yunlin intersects with the Taiwan Important Frog Area; and Fengshan Water Treatment Plant in Kaohsiung is located within an Important Bird Area. The ecosystems associated with TWC's operational sites primarily consist of pond and wetland ecosystems in aquatic environments, and broadleaf forest and low-elevation hill ecosystems in terrestrial environments. Additionally, all sites in the Penghu region are situated within National Scenic Areas and feature island ecosystems.

In addition, reservoirs and water treatment plants overlap with many areas of concern, rivers, ponds, and conservation corridors delineated by the Taiwan Ecological Network, as well as Key Satoyama Landscapes and Biodiversity Hotspots. Regarding environmentally sensitive areas designated by domestic competent authorities, most are already located within designated reservoir water quality conservation zones, and may also

involve National Scenic Areas and Geoparks. TWC will align with national policies and regional zoning to conduct assessments and collaborations, avoiding related risks and grasping opportunities for Nature Positive growth.

### ▼ Site Locations Within Nature-Related Analytical Scope: Biodiversity (A) and Taiwan Ecological Network (B)

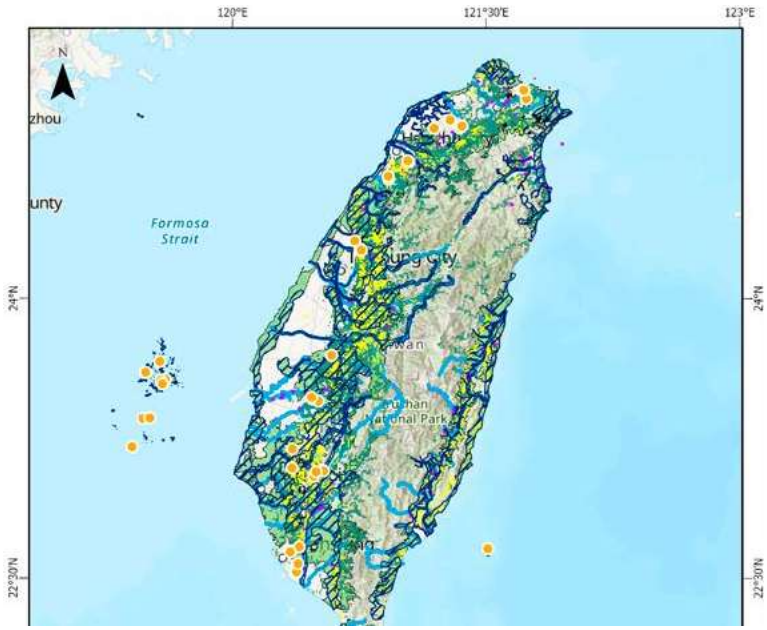
## (A) Biodiversity




**Legend**

- TWC Sites
- Taiwan Important Frog Area
- Critical Habitats for Threatened Plant Species Listed in the Red List
- Buffer Zones Around Threatened Plant Distribution Points in the Red List
- Waterbird Hotspots from the eBird database
- Important Bird Area
- Habitats and Distribution Areas of the Leopard Cat
- Potential Distribution Ranges for 49 Protected Terrestrial Vertebrate Species

## (B) Taiwan Ecological Network




**Legend**

- TWC Sites
- Areas of Concern within the Taiwan Ecological Network
- Rivers of Concern within the Taiwan Ecological Network
- Agricultural Irrigation Channels and Ponds of Concern within the Taiwan Ecological Network
- Key Satoyama Landscapes
- Regional Conservation

## B. Ecosystem Services

Ecosystem services refer to the benefits that humans obtain from ecosystems. The definition of ecosystem services explicitly recognizes the value of nature, and this value can be measured and used to support environmental management decisions. These services are generally categorized into four main types (provisioning, regulating, cultural, and supporting), and economic activities such as water collection, treatment, and supply typically involve all four categories.

TWC has identified ecosystem services for the 21 reservoirs and 17 major water treatment plants within its scope. It was found that these reservoirs primarily source their water from rivers, with some utilizing groundwater or surface water accumulation. While water treatment facilities have limited interaction with the surrounding natural environment, they may also utilize reservoirs, rivers, or groundwater as water sources. The analysis also explores how humans derive benefits from these natural systems. These services are mainly divided into provisioning, regulating, cultural, and supporting categories, corresponding to different beneficiaries. The mapping of ecosystem services and beneficiaries within TWC's operational scope is shown in the table below:

| Site Category | Affected Ecosystem Services | Primary Beneficiaries | Summary of Characteristics |
|---|---|---|---|
| **Reservoirs:** 21 sites including Nanhua and Lantan | Provisioning, Regulating, Cultural, Supporting (Comprehensive services) | Farmers, Community Residents, Tourists | Reservoirs are primarily located in upstream river basins or mountainous areas and are inherently freshwater ecosystems. Beyond supplying water (provisioning), they also serve functions in flood control (regulating), recreation and tourism (cultural), and habitat maintenance (supporting). |
| **Offshore Island Storage Ponds:** Penghu sites including Chenggong and Qimei | Provisioning, Regulating, Cultural (Partially supporting) | Community Residents, Tourists (Partially farmers) | Constrained by topography and agricultural scale, the beneficiaries are primarily local residents and tourists. Their functions focus heavily on public water supply and scenic recreation. |
| **Water Treatment Facilities:** 17 sites including Banxin, Fengyuan, and Pingding | Provisioning Services (Core service) | Community Residents | Water treatment plants are typically located in developed areas and operate as closed artificial structures. Their primary function is to transform natural raw water into drinking water that meets quality standards, directly serving residential end-users. |

### Specific Significance of Ecosystem Service Dimensions for TWC

- **Provisioning Services:** TWC sources water from streams, surface water accumulations, and groundwater, underpinning the fundamental needs of the residential and industrial sectors.
- **Regulating Services:** Reservoirs act as natural barriers during flood events and provide preliminary water quality regulation through interception and sedimentation.
- **Cultural Services:** Specific reservoirs, such as Chengcing Lake and Lantan, provide recreational trails and birdwatching activities, fulfilling societal demands for leisure and education.

- **Supporting Services:** By maintaining aquatic environments, TWC promotes nutrient cycling and supports the habitats and survival spaces of local flora and fauna (e.g., protected species).

In conclusion, reservoirs are recognized as multifunctional habitats where natural capital and social benefits intersect, while water treatment plants serve as critical infrastructure transforming natural provisioning services into public services. Through the management of these site categories, TWC has forged a deep, water-reliant relationship with farmers, community residents, and tourists.

## 3.3.3 Natural Resource Protection and Sustainable National Land Management

TWC follows TNFD recommendations, referencing Core Global Metrics and Core Sector Metrics for the water utilities sector as the quantitative foundation for managing nature-related issues. By disclosing nature-related metrics and targets, we quantitatively present our dependencies, impacts, and risk management performance concerning natural resources, thereby enhancing information transparency.

### A. Land and Freshwater Use Change

Under the measurement of the TNFD metric "C1.0 Total spatial footprint," the symbiotic relationship between water supply resilience and national land conservation is further highlighted. Through the following three-tier system, a comprehensive nature risk control mechanism is constructed:

- **National-level Water Source Protection:**

  > The total area of " Drinking Water Source Water Protection Area" designated in accordance with the Drinking Water Management Act reaches 3,873 $km^2$, accounting for as much as 10.7% of Taiwan's total land area. This more than ten percent of national land is not only the lifeline maintaining Taiwan's public and industrial water use but also the core scope of TWC's practice in sustainable nature management. This area is strictly protected by law, prohibiting any development activities that could pollute the water sources. Although our company is not the administrative law enforcement entity, as the primary user and monitor of the resources, we actively play the role of "water source gatekeeper." By working closely with the Ministry of Environment and local environmental protection bureaus, we strictly monitor water quality changes, translating regulatory compliance into a substantive environmental defense line.

- **Resource Conservation and Stewardship Scaling:**

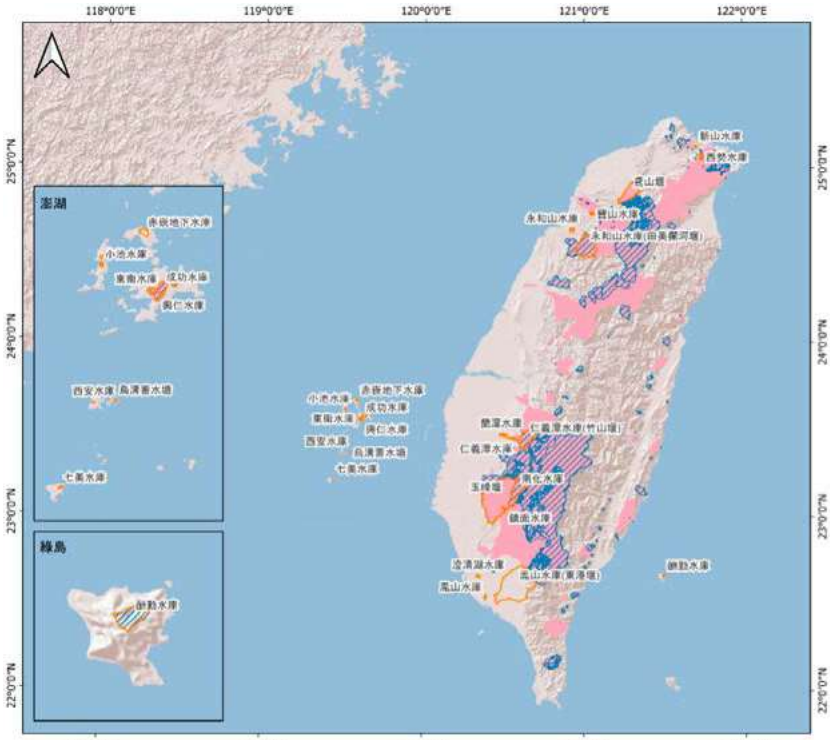
  > In addition to water quality protection, Water Quality and Quantity Protection Area also involve resource cultivation under the framework of the Water Act. Currently, there are 107 designated Water Quality and Quantity Protection Area in Taiwan, with a total area of approximately 9,000 $km^2$. Among them, the number of areas under our company's jurisdiction is as high as 97, covering an area of approximately 6,624 $km^2$. Over 90% of Taiwan's tap water protection areas are highly correlated with our company's operations. TWC legally allocates water source conservation and environmental compensation funds, and cooperates with competent authorities to support ecological compensation and soil and water conservation work within the areas, ensuring a stable supply of water in terms of "quantity."

- **Precise Management of Critical Assets:**

  > Among the 21 reservoirs directly managed by our company, the total area of the reservoir storage zones is approximately 1,220 $km^2$. Although the upstream forest lands of the reservoirs are mostly managed by the Forestry and Nature Conservation Agency of the Ministry of Agriculture or the Water Resources Agency, their land use behaviors (such as vegetation cover) directly determine the reservoirs' capacity to intercept turbidity and store water. TWC extends its influence beyond the boundaries of its direct authority by participating in the inter-ministerial " Reservoir Watershed Conservation and Management Committee," dedicating itself to maintaining the integrity of these 1,220 $km^2$ of critical natural assets.

## ▼ 'Reservoir Storage Zones' , 'Drinking Water Source Water Protection Area' and 'Water Quality and Quantity Protection Area'

**Reservoir Storage Zones, Drinking Water Source Water Protection Area and Water Quality and Quantity Protection Area**




Legend

- Reservoir Storage Zones
- Drinking Water Source Water Protection Area
- Water Quality and Quantity Protection Area

### B. Pollution and Pollution Removal, Waste Generation and Disposal

The tap water production and supply operational processes are relatively straightforward and do not involve directly discharging hazardous pollutants into the soil. TWC adopts a rigorous governance attitude towards environmental protection, focusing management efforts on the proper disposal and near 100% resource recovery and reuse of solid waste generated during the water treatment process (water treatment sludge and calcium carbonate crystals). A summary of the environmental impact management of TWC's operational processes is provided in the table below:

## ▼ TWC 2025 Nature Management Scope and Performance

| Scope of Nature-Related Impacts | Summary of 2025 Management Performance and Measures | Positive Contributions to the Natural Environment |
|---|---|---|
| **Land and Soil Protection**<br>**(Solid Waste)** | • Achieved a 99.9% reuse rate: A total of 314,511.71 metric tons of water treatment sludge and calcium carbonate crystals were generated, nearly all were recovered and reused without any illegal dumping.<br>• Resource recovery pathways: Transformed into resources such as red bricks (61.91%), potting soil (27.65%), and concrete aggregates (8.38%). | Elimination of soil pollution: The process is straightforward with no direct discharge of hazardous pollutants into the soil. By eliminating potential threats from waste through a circular economy model, we are moving toward Nature Positive growth. |

| Scope of Nature-Related Impacts | Summary of 2025 Management Performance and Measures | Positive Contributions to the Natural Environment |
|---|---|---|
| **Freshwater Ecosystem Maintenance** **(Effluent Management)** | • High recycling and reuse rate: Wastewater recycling rate reached 83.6% (98.41 million $m^3$ recovered).<br>• Water quality exceeding regulatory standards: COD (10.7 ppm), SS (12.6 ppm), and Total Residual Chlorine (0.05 ppm) are all far below the statutory limits. | Reducing the burden on natural water bodies: Through the "Three-Card Machinery Lifecycle Management System (Equipment Profile, Inspection, and Repair Logs)" system and autonomous testing (0 environmental fines), freshwater discharge is reduced, and abnormal thermal impacts are prevented, ensuring the ecological balance of receiving water bodies. |
| **Air Pollution Control** | • Trace emissions: No regular high-temperature combustion processes; emissions of nitrogen oxides (NOx), sulfur oxides (SOx), VOCs, hazardous air pollutants (HAPs), and particulate matter (PM) approach zero. | Maintaining surrounding air quality: The low-impact process characteristics effectively reduce non-greenhouse gas pollutants, maintaining a stable air environment for the ecosystems surrounding operational sites. |

## 3.3.4 Nature-Related Impacts, Risks, and Opportunities

### A. Potential Impacts of Operations on Nature

According to the TNFD Additional sector guidance – Water utilities and services, the primary impacts of water public utilities are typically associated with land use, water resource utilization, noise disturbance, and the waste and emissions generated during operations. During TWC's asset management and operations, there may be various potential impacts on nature. Overall, these impact pathways, regardless of their scale, may accumulate into ecosystem pressures. Regarding the types of impacts identified at this stage, a more detailed site-level analysis is still required in subsequent phases to evaluate the actual degree to which each impact driver affects natural conditions and ecosystem service capacities. TWC will progressively apply the TNFD's LEAP approach to continuously deepen its impact assessments and, in conjunction with conservation, restoration, substitution, and reduction measures, enable water utility operations to coexist with the natural environment and advance toward Nature Positive growth.

### ▼ Potential Impact Pathways and Mechanisms of TWC's Operational Activities on Nature

| Impact Driver (Pathway and Mechanism) | Potentially Affected Environmental Assets, Biodiversity, and Ecosystem Services | Description of Nature-Related Impacts to be Considered |
|---|---|---|
| **Land Use Area (H):** Destruction of ecosystems by activities across the value chain | **Environmental Assets** [14]<br>Land, terrestrial ecosystems<br>**Biodiversity (primarily terrestrial)**<br>Distribution of threatened plant species listed in the Red List, potential distribution of terrestrial vertebrates, wild bird habitats, leopard cat habitats and distribution, Taiwan Ecological Network, Key Satoyama Landscapes, biodiversity hotspots | Water extraction, treatment, and supply may require large areas of land for infrastructure construction, which can affect terrestrial and freshwater ecosystems (and in some cases, coastal ecosystems) due to land use changes and activities generated directly from operations.[15] Direct impacts primarily affect terrestrial environments and ecology. |

[14] Environmental Assets are defined as natural resources and ecosystems that are vital to the survival and well-being of humanity and other living organisms.

[15] EEA（2021）Drivers of and pressures arising from selected key water management challenges.

| Impact Driver (Pathway and Mechanism) | Potentially Affected Environmental Assets, Biodiversity, and Ecosystem Services | Description of Nature-Related Impacts to be Considered |
|---|---|---|
| **Freshwater Use Area (H) and Water Consumption (L):**<br>Over-exploitation of water resources disrupts freshwater ecosystems and causes water scarcity beyond normal limits. | **Environmental Assets**<br>Water resources, freshwater resources, groundwater freshwater ecosystems<br>**Biodiversity Areas (primarily aquatic)**<br>Wild bird habitats, Taiwan Ecological Network<br>**Ecosystem Services**<br>*Provisioning Services*<br>Water Supply<br>*Regulating and Maintenance Services*<br>Flow regulation, water purification | Water utilities rely on water resources, surface water (rivers and lakes), and groundwater (aquifers). Over-pumping may impact water supply, rivers could dry up, and groundwater levels could drop significantly, leading to water scarcity.[16] This impacts the water resources upon which the organization depends and the associated ecosystem services (including water supply, flow regulation, and water purification services).[17]<br>Additionally, organizations should identify infrastructure-related issues (e.g., pipe bursts, leaks due to aging), as these can cause water leakage, resulting in wasted water resources and unnecessarily increasing water demand.[18] |
| **Disturbance (M):**<br>Noise disturbance | **Biodiversity Areas (primarily fauna)**<br>Potential distribution of terrestrial vertebrates, wild bird habitats, leopard cat habitats and distribution, Taiwan Ecological Network, biodiversity hotspots<br>**Ecosystem Services**<br>*Noise mitigation services* | Water extraction, treatment, and supply may cause disturbances, such as noise pollution from the operation of machinery in treatment plants and sewage pumping stations, which could disrupt or negatively impact species populations. |
| **Discharge of Toxic and Nutrient Pollutants into Soil and Water (M):**<br>Generation of solid and liquid waste leading to soil and water pollution | **Environmental Assets**<br>Terrestrial (land-based) ecosystems, water resources, freshwater resources<br>**Biodiversity Areas (both aquatic and terrestrial)**<br>Critical habitats and buffer zones for threatened plant species listed in the Red List, potential distribution ranges for terrestrial vertebrates, wild bird habitats, leopard cat habitats and distribution, Taiwan Ecological Network, biodiversity hotspots<br>**Ecosystem Services**<br>*Regulating and Maintenance Services*<br>Habitat maintenance, solid waste remediation, water purification | Water extraction, treatment, and supply may involve methods and reagents that generate solid and liquid waste, leading to soil and water pollution.<br>Excess toxins or waste can affect the quality of water sources (water resources and/or freshwater resources), aquatic life, the local environment (habitat maintenance), and the ecosystem's ability to provide water purification services. |

[16] Foster, S. and Gogu, R. (2022) Groundwater Assessment and Management for sustainable water-supply and coordinated subsurface drainage: A Guidebook for Water Utilities and Municipal Authorities. IWA Publishing.

[17] EEA (2021) Drivers of and pressures arising from selected key water management challenges.

[18] Envirotechonline (n.d.) How Does the Water Industry Affect the Environment?

| Impact Driver (Pathway and Mechanism) | Potentially Affected Environmental Assets, Biodiversity, and Ecosystem Services | Description of Nature-Related Impacts to be Considered |
|---|---|---|
| **Generation and Discharge of Solid Waste (L):**<br>Use of reagents leads to water pollution | **Environmental Assets**<br>Water resources<br>**Biodiversity Areas (primarily aquatic)**<br>Wild bird habitats, Taiwan Ecological Network<br>**Ecosystem Services**<br>*Regulating and Maintenance Services*<br>Solid waste remediation, water purification | The use of reagents during the water treatment process generates solid waste, which can lead to adverse environmental impacts such as water pollution. |

TWC will evaluate and promote relevant measures to effectively assess nature-related operational and financial risks, impacts, and dependencies, and to establish appropriate governance mechanisms and action plans that foster positive impacts on the natural environment, including:

- **Utilizing water recycling and alternative water sources (such as seawater desalination) to reduce reliance on water resources;**
- **Conducting efficient water treatment activities to reduce nutrient loads and improve the quality of water discharged back into the environment, ideally operating with minimal energy demand;**
- **Adopting nature-based solutions (NbS), such as wetland conservation or upstream forest protection, to generate positive impacts on the natural environment.**[19]

Currently, TWC is participating in the government's diversified water sources development programs to promote the effective utilization of water resources. In response to climate change, TWC is also actively improving operational energy efficiency and reducing carbon-related environmental impacts. Regarding reservoir conservation, TWC continuously conducts reservoir desilting operations, as well as patrols of reservoirs and Tap Water Quality and Quantity Protection Areas, alongside biodiversity monitoring plans (such as the Nanhua Reservoir environmental monitoring). Looking ahead, TWC will continue to strengthen the conservation of the natural environment, creating a harmonious integration of water public utilities and environmental ecology, promoting Nature Positive growth, and minimizing nature-related risks and impacts.

### B. Addressing Environmental Changes and Nature-Related Environmental Risks

The nature-related risks faced by water public utilities are becoming more complex and multi-layered. Changes in the natural state often directly affect water source stability, treatment costs, water supply resilience, and financial risks. According to the TNFD framework, these risks can be classified into three major categories: physical risks, transition risks, and systemic risks. We have preliminarily summarized nature-related risks in the table below. Nature-related risks are not isolated events but systemic challenges formed by the intertwining of nature degradation, climate change, policy adjustments, and social expectations. By adopting the TNFD's risk identification framework, we can gain a more complete understanding of how the natural environment affects operational resilience and financial performance, serving as an important foundation for planning governance and action strategies.

[19] IWA（n.d.）Nature for Water and Sanitation.

## ▼ Description of TWC's Nature-Related Risks

| Risk Type | Risk Category | Risk | Materiality Indicator |
|---|---|---|---|
| **Physical Risk** | Acute | Changes in source water quality. | • Increased production costs may hinder the achievement of production targets, potentially resulting in fines or investment challenges. |
| **Physical Risk** | Acute | Extreme weather events, such as heavy rain, floods, landslides, or other natural disasters within the basin, pose risks to the operation of water facilities (e.g., infrastructure collapse or overflow). | • ncreased capital expenditure for infrastructure repair due to damage caused by extreme weather events.<br>• Reputation damage caused by aquatic ecosystem pollution and potential eutrophication. |
| **Physical Risk** | Acute | Alien invasive species in infrastructure. | • The invasion of alien species reduces water diversion efficiency, requires more time or methods for water treatment, and necessitates the formulation of clearance and management plans for alien species, leading to increased direct costs. |
| **Transition Risk** | Policy | Stricter water quantity and/or water quality regulations. | • Increased fines for failing to meet regulatory limits for water use or quality requirements.<br>• Denial of permits for failing to meet statutory targets for reducing water usage.<br>• Required to increase investments related to water treatment, thereby increasing expenditures. |
| **Transition Risk** | Technology | Contaminants of emerging concern. For example: Per- and polyfluoroalkyl substances (PFAS), microplastics, pharmaceuticals, and other pollutants. | • Increased capital expenditure for new and additional water purification and seawater desalination technologies.<br>• Failure to respond promptly to new substances and new pollution with appropriate actions may lead to customer harm and liability claims. |
| **Transition Risk** | Reputational | Changes in rainfall distribution patterns and over-extraction of water resources in catchment areas leading to reputational damage. | • The risk of over-extraction can lead to reputational risks, as water scarcity is increasingly becoming a concern for consumers and society at large. |

### C. Identifying Sustainability Opportunities under Water Supply Resilience

TWC transforms nature risks into momentum for driving transition, identifying that through resource efficiency enhancement and product and service innovation, we can not only reduce operational costs but also create long-term value for Nature Positive growth.

- **Resource Efficiency and Operational Optimization**

> ✓ **Diversified Water Sources Development and Ecological Pressure Alleviation:** Investing in Diversified Water Sources infrastructure, including various desalination plants and subsurface flow development. These projects provide "alternative water sources," effectively alleviating the extraction pressure on hyporheic freshwater resources, avoiding ecosystem function degradation caused by over-extraction, and simultaneously enhancing water supply resilience under extreme climate conditions.

✓ **Smart Leak Reduction and Water Conservation Opportunities:** Through the "Water Leakage Reduction Program," an estimated investment of NT$63.4 billion is planned, introducing The Smart Aqua Leak Finder and smart distribution network monitoring systems. In 2025, 4,003 underground leaks were successfully detected. This reduces unnecessary extraction of natural water sources and lowers energy consumption and carbon emissions generated during the pumping process.

✓ **AI-enabled Precision Chemical Dosing and Chemical Reduction:** Utilizing AI technology to predict raw water quality and automatically adjust dosing amounts has effectively reduced coagulant usage by approximately 41%. This not only optimizes operational costs but also reduces the potential burden of chemical emissions on water ecosystems at the source.

✓ **Regulating Benefits of Nature-based Solutions (NbS):** Actively promoting the "Tree Planting for Carbon Sequestration" project, with a cumulative afforested area reaching 283.69 hectares by 2025. By investing in forest conservation in catchment areas and leveraging their natural water purification and water retention and regulation functions, water treatment costs can be reduced and water supply resilience strengthened.

- **Product, Service, and Business Model Innovation**

✓ **100% Waste Resource Recovery and Circular Economy:** Transforming sludge cakes and calcium carbonate crystals generated from the water treatment process into red bricks, potting soil, and concrete raw materials, achieving a 100% reuse rate in 2025. Converting waste into "green product value" prevents soil pollution risks.

✓ **Renewable Energy and Green Energy Asset Development:** Utilizing reservoir water surfaces and water treatment plant roof spaces to install Solar PV systems (reaching 137 sites by 2025) and developing Small Hydropower Generation (such as the Hushan and Lijia projects), with total power generation exceeding 100 million kWh in 2025.

✓ **Smart Services and Public Trust:** Commissioning the "TWC No. 1" smart water quality monitoring vessel and mobile water quality testing vehicle for sampling, alongside developing an AI smart customer service and real-time water quality announcement system, improving water quality monitoring precision and information transparency. This helps strengthen public trust in drinking water safety and reduces reputational risks.

## 3.3.5 Positive Action - TWC's Sustainable Pathway Toward Nature Positive Growth

TWC deeply recognizes that water resources and climate stability are the dual pillars of natural capital. Building on the aforementioned analysis of the operational scope, dependencies, and impacts, climate change has been identified as one of the core impact factors driving TWC's natural changes. Through the two core strategies of "Net Zero Transition" and "Ecological Protection," employing smart transitions and nature-based solutions, we are committed to realizing the sustainable vision of Nature Positive growth.

### A. Establishing a Nature Issue Management and Governance Framework

Referencing the TNFD's LEAP methodology, businesses can construct governance mechanisms for nature issues from the top down of the organizational structure, translating dependencies, impacts, risks, and opportunities regarding nature into concrete corporate decision-making processes.

- **Clarifying Internal Governance Roles:**

✓ Currently, TWC does not have a direct primary responsible unit, but through the "Sustainability Development Committee," it supervises and tracks the annual implementation plans and performance of nature-related material topics. Various business units are responsible for driving and executing nature-related or resource circulation tasks, ensuring TWC implements environmental conservation and impact mitigation.

✓ **Strategic R&D and Professional Linkage:** Officially established the "Department of Research and Training" through a merger starting in January 2026, tasked with converting R&D outcomes (such as AI-enabled Precision Chemical Dosing, AI-assisted leak detection technology) into training materials, solidifying the technological foundation for nature protection.

✓ **Core Management and Operational Execution:** Established a tiered responsibility system. The Department of Water Quality serves as the primary environmental management unit coordinating guidelines; the Department of Industrial Safety and Environment Protection is responsible for tracking and assessing post-EIA monitoring; the Department of Water Supply manages water source development and allocation; and various Branches implement on-site energy management, ecological reviews, and the operation of the ISO 14001 Environmental Management System.

- **Formally Integrating Nature Risks into Enterprise Risk Management (ERM):**

✓ **Risk Identification Framework:** Implementing enterprise risk management and incorporating reservoir conservation into material topic management; referencing the TNFD framework to identify physical risks (such as source water turbidity fluctuations, extreme weather disasters, alien invasive species), transition risks (such as stricter controls on emerging contaminants PFOA/PFOS, reputational risks caused by land revitalization), and systemic risks.

- **Establishing Annual Review and Cross-Departmental Collaboration Processes:**

✓ **OST Planning System:** Adopting the "Objective-Strategy-Tactic (OST)" management mechanism, expanding qualitative goals such as "stable water supply, excellent water quality, net zero emissions" into quantifiable action plans (such as Water Leakage Rate, total Carbon Reduction Volume, Water Quality Compliance Rate metrics), with the Headquarters allocating project resources according to regulations.

✓ **PDCA Management Cycle:** Implementing strategic control through the "Responsibility Center System." Convening the "Operational Revenue and Expenditure Control Meeting" once a month, where senior executives track the progress of environmental and financial performance.

✓ **Performance Verification and Improvement:** The Headquarters utilizes annual "Performance Verifications" and "Roving Inspections" to confirm the execution effectiveness of nature issue management systems (such as the "One Machine, Three Cards" equipment maintenance, quarterly effluent testing) across all units, and makes rolling corrections for any deviations.

### B. Actions to Enhance Water Quality and Ecological Security

TWC views environmental monitoring as a core tool for risk control and nature protection. For key operational sites nationwide, we not only strictly execute the statutory monitoring required by the Environmental Impact Assessment Act, but also expand the monitoring scope from single points to the watershed and ecosystem level through internal autonomous management mechanisms. Furthermore, in response to challenges such as water source quality fluctuations and emerging contaminants, TWC actively implements the "Promoting End-to-End Water Safety" strategy, building a dual defense line for water quality and ecology through smart technology monitoring and rigorous habitat protection actions.

- **Implementing Statutory and Autonomous Environmental Monitoring:**

✓ **Building a Multi-Dimensional Environmental Defense Line Currently:** TWC executes long-term monitoring covering physical, chemical, and biological aspects for projects including the Niaozueitan Artificial Lake Tap Water Project, Pingding Water Treatment Plant Expansion, Hushan Water Treatment Plant, Penghu and Magong Seawater Desalination Plants, Hsinchu Baoshan Water Treatment Plant, Hualien Shoufeng Water Treatment Plant, Taitung Chenggong Water Treatment Plant, and the Gaoping Area Re-pumping Project.

✓ **Physical and Chemical Factor Monitoring:** Regular testing is conducted for air quality (TSP, PM10, PM2.5), noise and vibration, and surface and groundwater quality (pH, BOD, COD, SS, coliform group, ammonia nitrogen, total phosphorus, etc.).

✓ **Geology and Soil and Water Conservation Management:** Installing tiltmeters and inclinometer casings at Pingding and Chenggong Water Treatment Plants and Gaoping area projects to monitor slope stability; implementing land subsidence observation and hourly groundwater level recording in the Gaoping area to ensure a balance between water extraction activities and landform stability.

- **Scientific Analysis of Monitoring Data and Risk Response:**

✓ **Distinguishing Natural Backgrounds from Operational Impacts TWC establishes a scientific risk determination mechanism through cross-year trend analysis of monitoring data.**

✓ **Background Value Identification Strategy:** For instances of water quality exceeding standards at certain sites (such as ammonia nitrogen at Niaozueitan, suspended solids and coliform groups in the Gaoping River, total phosphorus in Penghu marine areas, and iron and manganese in Magong groundwater), TWC compares historical data from Ministry of Environment monitoring stations and the impacts of natural events like typhoons. It determines these to be background values, inherent river characteristics, or upstream domestic pollution background factors, rather than impacts from TWC's operations or engineering development.

✓ **Transparency and Public Disclosure:** In accordance with EIA commitments, TWC regularly uploads environmental monitoring data to the company's website and the Ministry of Environment's EIA commitment reporting system, proactively accepting public oversight and using it as a basis for adjusting operational management directives.

- **Enhancing Water Source Quality Monitoring (Turbidity, Algal Blooms, Emerging Contaminants): Smart Defense Mechanisms**

✓ **Smart Monitoring Platform:** Commissioning the "TWC No.1" smart water quality monitoring vessel to perform high-frequency, automated stratified sampling (up to 18 meters deep) at important water sources like Niaozueitan Artificial Lake, effectively overcoming the spatial limitations of manual sampling and accurately grasping source water ecological quality.

✓ **Emerging Contaminants Monitoring and Countermeasures:** Establishing a background database for 13 emerging substances including PFAS (PFOA, PFOS, PFHxS) and microcystins.

✓ **Advanced Pollution Interception Technology:** Drawing from the experience of the 11/27 Keelung Water Quality Incident, introducing "Water Surface Oil Film Monitors" and "Underwater Oil Monitors" at key intakes to monitor Total Volatile Organic Compounds (VOCs); and introducing "Continuous Thermal Sniffing Equipment" to heat raw water to 60° C, enhancing the interception efficacy for trace odors.

✓ **Algae Early Warning:** Strictly implementing the "Standard Operating Procedures for Reservoir Algal Blooms and Algal Toxin Incidents," continuously monitoring the risk of algal proliferation following water temperature increases caused by climate change.

- **Alien Species Management and Positive Practices for Important Habitats: Advancing Toward Nature Positive Growth**

✓ **Ecological Review and Habitat Protection:** Using GIS systems to identify overlaps between operational sites and the "Taiwan Ecological Network" and "Important Leopard Cat Habitats." In 2025, 12 ecological review supervisions were completed.

✓ **Land Revitalization and Development Introspection:** Learning from the Kaohsiung Dashu Solar PV case, future land revitalization bids will introduce "Environmental and Topographical Sensitivity Assessments," strictly prohibiting high-intensity development on land with ecological conservation value, and adding mandatory environmental protection clauses to contracts.

✓ **Participating in Catchment Area Governance:** Participating in the inter-ministerial "Catchment Area Conservation and Governance Committee," implementing patrols, enforcement, and soil and water conservation in the storage zones of 21 managed reservoirs, indirectly protecting the habitats of leopard cats and Red List threatened plants (such as Lantan).

✓ **Alien Species Control and Nature-based Solutions Practice:** Treating the removal of alien species as a key action of nature-based solutions. Conducting routine removal of invasive aquatic plants like water hyacinth and water lettuce in reservoir areas to prevent intake facility blockage and maintain water oxygen levels. For catchment areas or ecological parks, cooperating with Forestry and Nature Conservation Agency or NGO projects to remove alien species like Mikania micrantha to protect native forest health and carbon sequestration functions, ensuring ecological integrity and proactively reversing nature loss to achieve the Nature Positive vision.

## C. Setting and Tracking Metrics and Targets

By measuring water resource use, pollution emissions, and ecological restoration performance through metrics, we integrate these aspects into our operational processes. Referencing the TNFD metrics framework, TWC establishes real-time, traceable management metrics and invests in relevant initiatives.

- **Total spatial footprint (C1.0):** Monitoring the land use of the managed 21 reservoir storage zones (1,220 $km^2$), Drinking Water Source Quality Protection Zones (3,873 $km^2$), and Tap Water Quality and Quantity Protection Areas (6,624 $km^2$).
- **Pollutant emissions (C2.0):** Tracking the resource recovery pathways of the 314,511.71 metric tons of solid waste (water treatment sludge and calcium carbonate crystals) generated in 2025, and monitoring the Chemical Oxygen Demand (COD) of effluent (2025 average 10.7 ppm).
- **Emerging contaminants monitoring (WU.C2.0):** Establishing a background database for substances like PFAS (PFOA, PFOS, PFHxS). In 2025, 381 background value analyses were completed to prepare for the new Drinking Water Quality Standards taking effect on July 1, 2027.
- **Water resource circularity and mitigating leakage (WU.C3.0/3.1):** In 2025, the wastewater recycling and reuse rate reached 83.6% (98,414,771 m3), and 4,003 leaks were successfully detected through AI-assisted leak detection.
- **Real-time management tools:** The "Water Quality Alert Platform (WQAP)" provides real-time monitoring of water quality data across 439 sites nationwide, and automatically generates leakage anomaly reports through the "Big Data Visualization Analysis Platform" and the WADA system.
- **Annual public reporting and continuous improvement:** TWC regularly publishes its "Sustainability Report" annually, disclosing ESG and nature-related performance, conducting rolling reviews, and formulating future business strategies and development goals.

## ▼ TWC Nature-Related Impacts, Risks, and Opportunities, with Corresponding Metrics and Countermeasures

| Category | Impact Driver or Category | Potential Content or Specific Description | Corresponding TNFD Metric or Monitoring / Potential Performance Metric | Mitigation or Positive Action Countermeasures |
|---|---|---|---|---|
| Impact | Land Use Area | Infrastructure construction leads to the compression or obstruction of terrestrial habitats. | C1.0 Total spatial footprint: Managing 3,873 $km^2$ of water quality protection zones. | Introduce "Environmental and Topographical Sensitivity Assessments"; strictly prohibit development on land with high ecological value. |
| | Freshwater Use and Consumption | Over-pumping leads to dried-up rivers and dropped groundwater levels. | WU.C3.0/3.1 Water resource circularity and mitigating leakage: Wastewater recycling rate 83.6%. | Execute the Water Leakage Reduction Program; promote alternative water sources such as seawater desalination and hyporheic water. |
| | Toxic and Nutrient Pollutant Emissions | Reagent use and wastewater discharge lead to water and soil pollution. | C2.0 Pollutant emissions: COD average 10.7 ppm (far below the standard). | Introduce AI-enabled Precision Chemical Dosing system (reagent reduction 41%); implement "One Machine, Three Cards" wastewater inspection. |
| | Solid Waste Generation | The water treatment process generates sludge, which will pollute the environment if handled improperly. | C2.2 Waste generation and disposal: 314,511 metric tons produced, reuse rate 100%. | Promote the circular economy, transforming sludge into raw materials for red bricks and potting soil. |

| Category | Impact Driver or Category | Potential Content or Specific Description | Corresponding TNFD Metric or Monitoring / Potential Performance Metric | Mitigation or Positive Action Countermeasures |
|---|---|---|---|---|
| Risk | Physical - Acute | Source water quality changes (e.g., turbidity spikes, algal blooms). | Increased production costs; Water Quality Compliance Rate must be maintained at 99.95%. | Commission the "TWC No. 1" smart monitoring vessel; establish a three-stage emergency response mechanism for high turbidity. |
| | Physical - Acute | Extreme weather events (typhoons, floods leading to facility collapse). | Infrastructure repair expenditures; Water Supply Coverage Rate target 95.92%. | Install 504 emergency generators; promote cross-regional dispatch and backup water source engineering. |
| | Physical - Acute | Alien invasive species (blocking facilities or disrupting ecology). | Reduced water diversion efficiency; increased direct clearance costs. | Execute water hyacinth removal in reservoir areas; cooperate with inter-ministerial plans to remove Mikania micrantha. |
| | Transition - Policy and Technology | Emerging contaminant regulations (e.g., PFAS, microplastics). | Increased capital expenditures; elevated compliance costs. | Establish a background database for 13 emerging substances (2,337 analyses completed). |
| | Transition - Reputational | Over-extraction or drought leading to a decline in public trust. | Reputational damage; percentage of revenue water target increased to 82.13%. | Develop AI smart customer service for real-time announcements; promote Tree Planting for Carbon Sequestration and ecological conservation cooperation. |
| Opportunity | Resource Efficiency and Operational Optimization | Diversified Water Sources development (seawater desalination, hyporheic water) to alleviate surface water pressure. | Reduce dependence on natural water sources. | Construct Hsinchu and Tainan seawater desalination plants; execute phase II hyporheic water projects. |
| | Smart Transition Opportunities | AI technology assists in leak reduction and precision dosing, lowering energy consumption and costs. | Reduce Water Leakage Rate to below 9.77%. | Invest NT$63.4 billion to promote the leak reduction program; introduce The Smart Aqua Leak Finder and big data early warnings. |
| | Product, Service, and Business Model Innovation | Circular economy transforms waste into green assets. | Sludge Resource Recovery and Reuse rate > 99.9%. | Transform sludge cakes into building materials (red bricks 61.9%); develop Small Hydropower Generation and Solar PV green energy. |
| | Nature-based Solutions (NbS) | Enhance natural filtration functions through forest conservation in catchment areas. | Cumulative afforested area of 283.69 hectares. | Promote the "Tree Planting for Carbon Sequestration" plan, contributing an annual carbon sink benefit of 2,744 metric tons $CO_2e$. |

# 04

# ENVIRONMENT PERFORMANCE


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# 4 Environment Performance

TWC understands that environment performance demonstrates a company's long-term competitiveness and is the most direct impact felt by the public, aside from drinking water quality. While pursuing our core services of financial resilience and stable water supply management, we also strive to reduce our environmental footprint, implement circular economy practices, and achieve environmental co-prosperity. This chapter details TWC's environment performance data concerning material topics, covering Energy Management, GHG emissions, and the governance results of waste and effluent quality management.

## 4.1 Energy Management and GHG Emissions

### 4.1.1 Energy and GHG Emissions Performance

TWC's energy consumption data is compiled from primary energy sources, covering operational facilities' usage such as water supply power (electricity used by the water treatment and distribution network), fuel generators, and fuel for official vehicles. The calculation is based on electricity bills, fuel procurement records, and billing data, with the scope including electricity, diesel, gasoline, and natural gas. In this report, various types of energy consumption are converted into gigajoules (GJ) or its multiples for disclosure. Relevant energy conversion factors are estimated based on government agency announcements and IPCC guidelines.

TWC continuously tracks its annual internal consumption of purchased electricity, gasoline, and diesel to identify potential energy efficiency improvements, optimize water supply processes, and reduce carbon emissions. In 2025, purchased electricity consumption (1,024,574,320 kWh) slightly increased by approximately 0.84%. Regarding end-use efficiency, energy intensity slightly rose to 0.001148 GJ/$m^3$, while the electricity consumption per unit of water supplied slightly increased to 0.316 kWh/$m^3$ ("purchased electricity consumption" divided by "annual water supply"). Regarding carbon emissions, the GHG emission intensity slightly increased by about 0.67%, with the 2025 actual performance at 0.151 kg $CO_2e/m^3$ Detailed energy use and carbon emission information is summarized in the table below.

For GHG management strategies, please refer to Chapter 3 of this report. TWC is not among the first batch of entities mandated by the Ministry of Environment to register GHG inventories. Given the extensive and complex nature of TWC's operational facilities and equipment, a comprehensive carbon

inventory requires significant resources. In the past, a complete carbon inventory and verification were not implemented; instead, carbon emissions were estimated through independent inventories using 2005 as the base year, targeting Scope 1 (Direct Emissions) and Scope 2 (Indirect Emissions from Energy). Calculations reference the latest emission factors published by the Ministry of Environment and Taiwan Power Company. In 2025, TWC initiated a carbon inventory implementation plan, using the Fifth Branch as a demonstration pilot zone, with the goal of completing its carbon inventory by 2026. TWC will continuously refine its carbon management mechanisms, gradually expand the inventory scope to cover the entire company, and realize the Net Zero Emissions target.

- **Scope 1 (Direct Emissions):**

Covers emissions from activities owned or controlled by TWC, including water treatment processes, official vehicles, and fossil fuel combustion by backup generators.

- **Scope 2 (Indirect Emissions):**

The primary source of TWC's emissions, mainly from purchased electricity required for operations.

Regarding Renewable Energy development, the Fengshan Water Treatment Plant's Solar PV project officially commenced power generation on August 8, 2025, and completed the transfer of Taiwan Renewable Energy Certificates (T-REC) by the end of the same year. This marks TWC's first instance of generating power for its On-site Renewable Energy Generation System, with cumulative Carbon Reduction Volume reaching 838,525 kg $CO_2e$.



## ▼ Non-Renewable Energy Consumption and GHG Emissions

| Item | 2023 | 2024 | 2025 |
|---|---|---|---|
| Purchased Electricity Consumption (kWh) | 1,011,338,330 | 1,016,016,513 | 1,024,574,320 |
| Calorific Value of Purchased Electricity (GJ) | 3,640,817.99 | 3,657,659.45 | 3,688,467.55 |
| Gasoline Consumption (Liters) | 891,658 | 915,903 | 903,270 |
| Calorific Value of Gasoline (GJ) | 29,118.91 | 29,910.68 | 28,688.82 |
| Diesel Consumption (Liters) | 66,977 | 88,260 | 95,980 |
| Calorific Value of Diesel (GJ) | 2,355.52 | 3,104.03 | 3,470.37 |
| Total Calorific Value of Energy Consumption (GJ) | 3,672,292.42 | 3,690,674.15 | 3,720,626.74 |
| Annual Water Supply ($m^3$) | 3,179,746,300 | 3,230,827,173 | 3,240,759,141 |
| Annual Energy Intensity ($GJ/m^3$) | 0.001155 | 0.001142 | 0.001148 |
| Scope 1 GHG Emissions (kg $CO_2e$) | 2,276,973.85 | 2,389,774.42 | 2,330,157.38 |
| Scope 2 GHG Emissions (kg $CO_2e$) | 499,601,135 | 481,591,827 | 485,648,228 |
| Scope 1 + Scope 2 GHG Emissions (kg $CO_2e$) | 501,878,109 | 483,981,602 | 487,978,385 |
| Annual GHG Emission Intensity (kg $CO_2e/m^3$) | 0.158 | 0.150 | 0.151 |

Note:

- TWC's annual energy consumption statistics include internal purchased electricity, gasoline, and diesel, excluding external energy use. Statistical data is derived from usage on billing receipts.
- Prior to 2024, energy conversion factors referenced the calorific value factors for various energy sources in the "GHG Emission Factor Management Table Version 6.0.4" published by the Ministry of Environment: gasoline (7,800 kcal/L), diesel (8,400 kcal/L), and purchased electricity (0.474 kg $CO_2e$/kWh). In 2025, the referenced calorific value factors were updated to the "GHG Emission Factors Announced on February 5, 2024" by the Ministry of Environment: gasoline (7,586 kcal/L), diesel (8,636 kcal/L), and purchased electricity (0.474 kg $CO_2$ e/kWh). To unify energy units, historical information in this report has been adjusted using 1 kcal = 4.1868 KJ (International Steam Table thermochemical constant) as the calculation basis.
- GHG emissions are consolidated using the operational control approach. Direct (Scope 1) emission sources include internally used gasoline and diesel, while indirect (Scope 2) emission sources involve internally used purchased electricity.
- Gases included in GHG calculations are carbon dioxide, methane, and nitrous oxide.
- The Emission Factor for purchased electricity references the electricity emission factor published by the Energy Administration, Ministry of Economic Affairs: 0.494 kg $CO_2$ e/kWh in 2023; 0.474 kg $CO_2$ e/kWh in 2024. As the factor for 2025 has not been announced, the 2024 factor of 0.474 kg $CO_2$ e/kWh is applied.
- The organization–specific metric (denominator) for calculating annual energy intensity and GHG emission intensity is the annual water supply ($m^3$). Thus, the calculation formula for energy intensity is: Total Calorific Value of Energy Consumption (GJ) / Annual Water Supply ($m^3$). The calculation formula for annual GHG emission intensity is: Scope 1 + Scope 2 GHG Emissions (kg $CO_2e$) / Annual Water Supply ($m^3$).
- GHG inventory data is based on the company's independent inventory. The GHG inventory base year is 2005.
- Data Correction Note: During the preparation of this year's sustainability report, TWC identified errors in the 2023 and 2024 data for purchased electricity, gasoline, and diesel consumption. TWC has recalculated and verified the data, and this report presents the corrected figures to ensure the accuracy of information disclosure.

## 4.1.2 Energy Conservation and Carbon Reduction Actions and Performance

For TWC, effective Energy Management is the core carbon management approach. Through various operational units driving numerous measures, TWC continuously reviews its energy and GHG emissions performance from both supply-side (e.g., developing Renewable Energy for self-use) and demand-side (energy conservation) perspectives to achieve energy-saving and carbon reduction goals. TWC's five major strategies for Energy Management include:

- **Enhancing energy efficiency**
- **Developing green energy**
- **Promoting Green Office**
- **Providing green services**
- **Strengthening green production and efficient resource utilization**

### A. Enhancing Energy Efficiency

TWC's energy intensity in 2025 was 0.001148 GJ/m$^3$. According to "Water Supply Services Performance Indicators: Third Edition"[20] published by the International Water Association (IWA), the energy intensity for standard water treatment systems ranges from 0.00072 to 0.00216 GJ/m$^3$, and 0.00144 to 0.00432 GJ/m$^3$ for distribution networks. TWC's energy use efficiency falls within the internationally excellent range, fully demonstrating world-class Energy Management performance. In recent years, TWC's electricity consumption per unit of water supply has fluctuated due to external factors, primarily because of:

- **Policy alignment: Actively participating in government drought relief and water dispatch plans.**
- **Social responsibility: Installing additional pumping stations and related facilities to ensure stable water supply in remote areas and optimize domestic drinking water quality.**

Despite the increased water supply load, we continue to actively promote various energy-saving measures to optimize electricity use efficiency. The goal is to reduce the energy intensity of water supply electricity by 5% compared to 2005 by 2032, targeting 0.00105 GJ/m$^3$ (approximately 0.2913 kWh/m$^3$). TWC considers "management system optimization" and "equipment improvement" as the two pillars for enhancing energy efficiency. On the management front, according to the "Guidelines for Conserving Power Costs," all Branches and plants are required to regularly provide specific energy-saving measures and review their execution. Every April and October, facilities report internal energy-saving performance based on Taiwan Power Company data, consolidated by the Branches before May 10 and November 10, respectively. Low-voltage stations are controlled by the Branches themselves, while meters over 100 kW must be submitted to the Headquarters for reference, with annual reviews completed by the Headquarters' business units by February of the following year to ensure rolling management. Specific implementation measures include: replacing old units with high-efficiency motors, installing VFDs, lowering the Water Leakage Rate to reduce ineffective pumping, and comprehensively optimizing energy use efficiency through peak/off-peak power dispatch and heavy power usage monitoring. Current main management and specific measures include:

[20] https://iwaponline.com/ebooks/book/255/Performance-Indicators-for-Water-Supply-Services

| | | |
|---|---|---|
| Adjusting contract capacity | Improving power factor | Improving and selecting appropriate motors and pumps |
| Adjusting water supply operation modes | Carefully selecting time-of-use electricity pricing | Implementing maintenance and repair of electrical equipment |
| Reviewing energy consumption of water treatment equipment (operational head loss) | Isolating high and low-pressure water supply zones | Strengthening leak detection and repair for pipelines, water receiving pools, clear water reservoirs, and distribution reservoirs |
| Reviewing distribution networks | Enhancing well washing operations | Adjusting to reasonable water pressure |
| Conserving electricity in offices | Verifying electricity billing | Applying for green building certificates for specific newly constructed buildings |

On the hardware front, TWC actively implements Energy Management and Net Zero Emissions by refining equipment technology and optimizing engineering design. Aligning with the Ministry of Economic Affairs' policies, starting in 2024, TWC introduced ESCO energy-saving improvements for 43 heavy power users (facilities with a contract capacity over 800 kW). Key projects cover pump replacement, new VFDs installation, and Energy Management Systems (EMS). Based on diagnostic reports at the end of 2025 (with 5 locations projected to complete improvements and issue performance reports by the end of 2025), an additional 2.776 million kWh (9,995 GJ) of electricity can be saved annually. Compared to the 23.972 million kWh (86,299.2 GJ) saved in 2024, overall energy-saving benefits are expected to increase by another 11.6%.

To ensure the precision of energy-saving results, TWC established benefit calculation standards for various energy-saving procurements, referencing the guidelines of the Taiwan Green Productivity Foundation and the spirit of the International Performance Measurement and Verification Protocol (IPMVP). This evidence-based evaluation approach not only accurately measures investment benefits but also facilitates quantitative and precise carbon reduction pathway planning, thereby strengthening the company's overall energy governance performance.

TWC actively incorporates "energy-efficient green building" concepts into facility design. During the design phase, adhering to natural environmental conditions, highly insulated materials and energy-saving windows and doors are adopted to significantly reduce energy loss from heat transfer; indoors, energy-efficient HVAC, smart lighting, and energy-saving outlets are equipped. Moreover, buildings integrate Solar PV systems and rainwater harvesting facilities to boost resource self-sufficiency and reduce reliance on external energy. In 2025, TWC successfully obtained green building certifications for the following five facilities, specifically implementing low-carbon operations and lowering long-term maintenance costs:

- **Penghu Region: Qimei Desalination Plant Management Center, Jibei Desalination Plant Management Center**
- **Southern Region: Zengwen Phase II Management Building, Shanshang Water Treatment Plant Operations Building Pingtung Region:**
- **Pingtung Branch Chaozhou Office**

TWC actively implements various Energy Management measures, achieving significant carbon reduction results. Although slightly fluctuating due to water dispatch in 2025, the overall carbon reduction benefit

remained at 101,000 tons of $CO_2e$. To continually align with the national Net Zero Emissions policy, TWC has set a reduction target of 106,000 tons of CO2e for 2026. We will consistently reduce the environmental impact of operations through ESCO energy-saving improvements, green building promotion, and Renewable Energy applications.

### ▼ TWC Carbon Reduction Volume

| Carbon Reduction Volume | 2023 | 2024 | 2025 | 2026 Target |
|---|---|---|---|---|
| **Unit: Tons $CO_2e$** | 82,811 | 104,580 | 100,704 | 105,780 |

## B. Developing Green Energy

TWC actively promotes the development of Renewable Energy, primarily focusing on Solar PV and Small Hydropower Generation. By taking inventory of self-owned sites and developing them in phases, the cumulative Renewable Energy generation performance in recent years is shown in the table below. The overall Renewable Energy generation is approaching 10% of the annual purchased electricity. In the future, TWC will prioritize self-use Renewable Energy generation and expand green electricity procurement to increase the proportion of Renewable Energy use.

### ▼ Recent Renewable Energy Development Performance

| Generation Type | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Cumulative Number of Solar PV Sites** | 120 sites | 130 sites | 137 sites |
| **Solar PV Capacity (kW)** | 67,000 | 79,556 | 83,125 |
| **Solar PV Benefits (Annual Rebate)** | 93.525million | 97.89 million | 105.44 million[note 1] |
| **Cumulative Number of Small Hydropower Generation Sites** | 1 site | 2 sites | 3 site |
| **Small Hydropower Generation Capacity (kW)** | 130 | 845 | 2,345 |
| **Solar PV Power Generation (kWh)** | 82,728,259 | 96,934,754[note 2] | 99,515,145 |
| **Small Hydropower Generation (kWh)** | 650,000 | 650,000 | 8,992,256 |
| **Total (kWh)** | **83,378,259** | **97,584,754** | **108,507,401** |

Note 1: The solar power benefits (annual rebate) are calculated by deducting the small hydropower rebate of NT$2.34 million from the total 2025 rebate of NT$107.78 million.
Note 2: Exclude the generation of the Shalu Water Distribution Center.

- **Installing Solar PV Facilities**

TWC's facilities are distributed throughout Taiwan and cover a certain area, offering potential for Solar PV development. Provided that future water supply system maintenance, operations, and office use are not compromised, TWC actively assesses the feasibility of utilizing its reservoirs, water treatment plants, pumping stations, pool spaces, office roofs, and idle land. Solar PV equipment is installed either for an On-site Renewable Energy Generation System or through leasing, balancing environmental protection and

economic development. Since 2017, priority has been given to tendering Solar PV equipment for facilities with larger capacities and cost-effectiveness. By the end of 2025, 137 sites had been completed, with a total installed capacity of 83,125 kW, generating 99.51 million kWh in 2025. This equates to a reduction of approximately 47,170 tons of carbon dioxide (calculated using an electricity Emission Factor of 0.474). The current cumulative Solar PV installation performance is detailed in Table below.

- **Promoting Small Hydropower Generation**

TWC's Small Hydropower Generation converts the potential energy of water into electrical energy, primarily utilizing the height difference of water levels to flow under gravity. This is a key Renewable Energy project where the company possesses developmental advantages. By inventorying raw water, water treatment, and distribution networks, sites with sufficient flow and head differences are selected as potential locations. Feasibility assessments for Small Hydropower Generation are conducted while ensuring pipeline safety, water supply stability, and considering historical flow variations. To leverage professional division of labor and streamline operations, TWC adopts a model of providing land space and recruiting excellent private contractors for planning and construction. TWC also formulated the "Guidelines for the Assessment of Small Hydropower Generation Equipment" to facilitate execution by Branches.

The current site operation models are divided into "leasing" and "On-site Renewable Energy Generation System." Under the leasing model, the winning contractor installs the equipment and sells the generated power to the power purchasing company, while TWC collects a certain percentage of the sales revenue as feedback funds. Under the On-site Renewable Energy Generation System model, TWC purchases the green electricity and Renewable Energy Certificates produced by the contractor, directly offsetting the organization's energy consumption. In terms of specific outcomes, the Small Hydropower Generation plant at the Hushan Water Treatment Plant in Yunlin was successfully completed in 2025. Combined with the previously completed Lijia Water Treatment Plant in Taitung and the Shalu Distribution Center in Taichung, the cumulative total installed capacity reached 2,345 kW. Moving forward, the development project at the Nanhua Water Treatment Plant in Tainan is planned, and upon completion, the cumulative total installed capacity is expected to further increase to 3,785 kW.

### ▼ Small Hydropower Generation Planning

| Site | Construction Progress | Installed Capacity | Feedback Fund Ratio | 2025 Power Generation | Annual Carbon Reduction Volume |
|---|---|---|---|---|---|
| **Lijia Water Treatment Plant** | Grid connection generation since Jan 2023 | 130kW | 8% | 0.42 million kWh | 201 tons |
| **Shalu Distribution Center** | Grid connection generation since Dec 2024 | 715kW | 30% | 4.19 million kWh | 1,986 tons |
| **Hushan Water Treatment Plant** | Grid connection generation since May 2025 | 1,500kW | 55% | 4.5 million kWh | 2,109 tons |
| **Nanhua Water Treatment Plant** | Under construction | 1,440kW | 3.5% | 7.2 million kWh | 3,413 tons |
| **Shengou Water Treatment Plant** | Under construction | Estimated 125kW | - | - | - |

| Site | Construction Progress | Installed Capacity | Feedback Fund Ratio | 2025 Power Generation | Annual Carbon Reduction Volume |
|---|---|---|---|---|---|
| **Taitian Distribution Reservoir** | Under construction | Estimated 86kW | - | - | - |
| **Niaozuitan Water Treatment Plant** | In planning | Estimated 824kW | - | - | - |
| **Houyi Water Treatment Plant** | In planning | Estimated 570kW | - | - | - |

Note: The feedback fund ratio comes from the lease agreements for Small Hydropower Generation equipment at various TWC Branches.

- **Implementing On-site Green Power Generation and Certificate Transfer**

As global industries respond to the RE100 initiative, the development and application of Renewable Energy have become the core of corporate sustainability transitions. To comply with the Energy Administration, Ministry of Economic Affairs' " Regulations for the Management of Setting up Renewable Energy Power Generation Equipment of Power Users above a Certain Contract Capacity " (commonly known as the Major Electricity Consumers Clause), TWC actively plans for facilities with contract capacities of 5,000 kW or more. Notably, the Gaoping River Water Intake Station of the Kaohsiung Water Supply Plant has met the statutory installation conditions. After evaluation, it requires 1,769,040 kWh of Renewable Energy annually to fulfill the 10% contract capacity obligation. Considering the spatial constraints at the Gaoping River Water Intake Station, which preclude the direct installation of On-site Renewable Energy Generation Systems, TWC adopted a flexible supporting measure. The clear water reservoir of the Fengshan Water Treatment Plant was selected as an alternative location to install generation facilities, and the produced green electricity is acquired through power transmission. This action not only ensures regulatory compliance but also serves as a critical milestone for TWC in expanding the introduction of Renewable Energy and optimizing its energy structure. The Solar PV construction project at the Fengshan Water Treatment Plant officially connected to the grid and commenced power generation on August 8, 2025, and successfully completed the transfer of Taiwan Renewable Energy Certificates (T-REC) by the end of the same year, achieving a substantial Carbon Reduction Volume of 838,525 kg $CO_2e$. Based on long-term benefit projections, this site is expected to contribute approximately 4.096 million kg $CO_2e$ in carbon reduction for the company between 2025 and 2030, effectively implementing green operation goals.

### C. Promote Green Office

- **Office Energy Conservation and Carbon Reduction**

To encourage employees to practice simple Energy Management and Net Zero Emissions in daily office routines, TWC promulgated the "Promote Green Office and Energy Conservation Implementation Plan" in 2024. This plan provides practical action guidelines for all units through 9 major measures: "Electricity Conservation," "Fuel Conservation," "Water Conservation," "Paper Conservation," "Plastic and Waste Reduction," "Sorting and Recycling," "Green Procurement," "Environmental Beautification," and "Advocacy and Awareness." Guidelines include maintaining air conditioning at 27-28° C and adjusting operational hours according to seasonal temperature changes, turning off lights during lunch breaks, installing timers to shut off water dispensers outside working hours, and Promoting Paperless Services by utilizing online

document routing and meeting check-ins to reduce paper printing, and enhancing environmental planting. Furthermore, budgets are allocated annually to replace energy-efficient air conditioners, lighting, and water-saving toilets, continuously upgrading electricity and water efficiency. ◦

- **Adopting Low-Carbon Transportation Vehicles**

Currently, the company has 1,461 official vehicles, predominantly small trucks and motorcycles. TWC will replace them with low-carbon transportation vehicles annually based on vehicle replacement standards and common expenditure criteria. In addition, minimum ridership restrictions are in place for official vehicles, requiring at least three passengers for dispatch.

- **Strengthening IT Equipment Management**

In response to technological advancements, corporate internal and external systems increasingly move toward digitalization, causing a surge in network and server demands and consequently higher energy usage. TWC plans to transition physical servers to virtual servers in the future. Utilizing virtualization technology saves space and yields significant cost savings in power and cooling, as well as substantially reducing expenses by decreasing additional hardware procurement. Beyond reducing resource consumption and electricity usage through virtual servers, the majority of physical meetings will transition to electronic meetings, cutting down on air conditioning and electricity consumption.

### D. Providing Green Services

TWC actively responds to national Energy Management policies by comprehensively promoting e-billing services (electronic bills and SMS bills), integrating digital technology into domestic water services. Alongside the long-standing email e-billing, the "SMS Billing Service" was launched in January 2021, providing users with more diverse and convenient payment and billing inquiry options. Through digital transformation, the public can access water bill information anytime and anywhere, not only enhancing payment convenience but also effectively reducing physical paper consumption and putting environmental protection concepts into practice. To increase the e-billing adoption rate, TWC utilizes multi-channel promotional strategies, including print media, the official website, social media platforms (Facebook), physical flyers, and paper bill envelopes; meanwhile, Branches collaborate with local government activities to set up booths, strengthening communication with users. Regarding tangible carbon reduction benefits, referencing the carbon label information from the Ministry of Environment's "Product Carbon Footprint Information Network," calculating a reduction of 7.6 grams $CO_2e$ per physical bill saved, TWC's e-billing applications reached 1,685,869 in 2025. This equates to an annual reduction of 76.88 tons $CO_2e$, significantly lowering the environmental footprint of our service operations.

**▼ TWC E-billing Application Numbers Over the Years**

| Year | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|
| **Total e-billing Applications** | 938,303 | 1,101,777 | 1,284,860 | 1,506,930 | 1,685,869 |
| **Total e-bills Sent (Number of Paper Sheets)** | 5,629,818 | 6,610,662 | 7,709,160 | 9,041,580 | 10,115,214 |
| **Carbon Reduction Volume (kg $CO_2e$)** | 42,787 | 50,241 | 58,590 | 68,716 | 76,875 |

Note: The number of paper sheets is the total applications multiplied by 6 billing periods; the Carbon Reduction Volume is the number of paper sheets multiplied by 7.6g/1,000/1,000.

### E. Green Production and Efficient Resource Utilization

- **Sludge Resource Recovery and Reuse**

To lower sludge treatment costs and develop reusable pathways, TWC completed the "Feasibility Study on the Freezing, Solidification, and Reuse of Water Treatment Sludge" in 2015. We also continue research on product technologies for water treatment sludge cake reuse. Through the circular economy, we maintain normalized reuse of water treatment sludge cakes, reduce landfilling, and lower carbon emissions.

- **AI-enabled Precision Dosing**

TWC incorporates smart operations starting from the details, leveraging the power of accumulation to bring multiple benefits. During the water treatment process, traditional feed-backward chemical dosing methods struggle with rapid water quality changes under extreme weather, relying on manual experience for adjustment, which often leads to wasted chemicals. Therefore, based on massive historical water quality data and dosing records, we introduced AI to assist in evaluation, automatically assessing the required chemical dosage in real-time according to water quality conditions. Currently, one water treatment plant reduced its pre-dosing from about 15 liters per hour to 8.9 liters, cutting chemical usage by approximately 41%. The overall wastewater volume was reduced by about 2%, and carbon reduction amounted to 2.74 tons $CO_2e$. Two more sites are expected to complete implementation shortly.

- **Tree Planting for Carbon Sequestration**

TWC actively promotes afforestation and greening across various sites, management buildings, and service offices. Up to 2024, tree planting at various facilities, reservoirs, management buildings, and service offices achieving 278.29 hectares, combined with an additional 4.4 hectares in 2025, reached a total of 283.69 hectares. This translates to a Carbon Reduction Volume of approximately 2,744 tons of carbon dioxide and enhances ecological sustainability. Continued afforestation to promote national forest carbon sinks is a concrete practice moving toward "Nature Positive."

# 4.2 Waste, Wastewater Discharge, and Air Pollution Management

To reduce its environmental footprint, TWC adopts a rigorous governance approach toward all types of pollutant emissions and waste management. As the company's core business is relatively straightforward, the associated emissions and waste are highly controllable and pose a lower environmental impact; however, under the "circular economy" mindset, we should not merely reduce waste or emissions, but actively invest in research and application for resource circulation, promoting resources to regenerate sustainably like the water cycle.

Starting with source management, TWC prioritizes clean rivers, reservoirs, hyporheic flow, or Groundwater as Raw Water sources. Proactively designating and managing "Tap Water Quality and Quantity Protection Areas" not only ensures raw water quality and eases the burden on water treatment but also minimizes the generation of process waste at the source. If waste and wastewater generated during water treatment are not properly managed, they could impact aquatic and terrestrial ecology and environmental quality. Thus, establishing a comprehensive waste management system at water treatment plants is increasingly vital.

## 4.2.1 Current Status

### A. Solid Waste Treatment

After water treatment plants extract raw water, a series of water treatment procedures are conducted to remove trace organic pollutants, fine turbidity, or suspended solids. The remaining solid portion post-treatment undergoes thickening, dewatering, and drying processes to finally form sludge cakes. In 2025, the total solid waste was approximately 165,122.29 tons, of which water treatment sludge accounted for roughly 149,590.78 tons, and calcium carbonate crystals accounted for about 15,531.51 tons.

### ▼ Types and Generation Volumes of Waste

| Waste Type | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Total Waste Volume (tons)** | 138,725.28 | 162,020.59 | 165,122.29 |
| **Water Treatment Sludge (tons)** | 122,671.92 | 145,142.35 | 149,590.78 |
| **Calcium Carbonate Crystals (tons)** | 16,053.36 | 16,878.24 | 15,531.51 |

Among the various treatment processes in water treatment plants, the sludge generated by gravity settling in the grit chamber is considered a useful earth and stone resource that will not cause secondary pollution. It can be handled according to the *Construction and Planning Agency's Surplus Earth and Stone Disposal Plan*, becoming a reusable resource not subject to the Waste Disposal Act and other related regulations. The remaining coagulation and sedimentation sludge, because it contains coagulants, coagulant aids, or polymer flocculants, poses a risk of secondary pollution. Therefore, its disposal is handled strictly in accordance with the relevant provisions of the *Waste Disposal Act*.

The volume of water treatment sludge is significantly affected by weather, especially during heavy rains when raw water turbidity surges, causing a marked increase in sludge. Currently, the industrial waste (including sludge cakes and calcium carbonate crystals) produced in-house and mechanically dewatered externally by TWC amounts to approximately 160,000 to 180,000 tons annually (including outsourced operation of advanced treatment plants such as Chengcing Lake, Fengshan, and Kaotan water supply plants). For the final disposal of the company's sludge cakes, except for the offshore islands of Penghu, outsourced reuse is adopted. The qualifications of the commissioned contractors are strictly reviewed in accordance with the Waste Disposal Act and the MOEA' *Regulations on the Management of Industrial Waste Reuse*. For the results of reuse, please refer to the circular economy section in this chapter.

### B. Wastewater Discharge

The total effluent discharge from TWC's water treatment plants in 2025 was 19,339,392 $m^3$, with an average daily discharge of 52,984 $m^3$. The effluent quality of TWC's water treatment plants fully complies with the effluent standards issued by the MOE.

#### ▼ TWC Total Effluent Discharge Over the Past Three Years

| Year | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Total effluent discharge from company own water treatment plants (including brine; unit: $m^3$)** | 15,515,055 | 18,586,802 | 19,339,392 |

#### ▼ TWC Effluent Quality Over the Past Three Years

| Testing Item | Effluent Quality Discharge Standard (ppm) | Annual Average Monitoring Value (ppm) | | |
|---|---|---|---|---|
| | | 2023 | 2024 | 2025 |
| **Chemical Oxygen Demand (COD)** | <100 | 8.4 | 8.1 | 7.9 |
| **Suspended Solids (SS)** | <50 | 11.5 | 10.6 | 11.5 |
| **Total Residual Chlorine** | <0.5 | 0.05 | 0.05 | 0.04 |

Note: The effluent quality of TWC's water treatment plants fully complies with the effluent standards issued by the MOE (COD < 100 mg/L, SS < 50 mg/L, and Total Residual Chlorine < 0.5 mg/L).

### C. Air Quality and Gas Emissions

TWC's primary process is water production, with power mainly supplied by Taiwan Power Company. The process emits no nitrogen oxides (NOx), sulfur oxides (SOx), Persistent Organic Pollutants (POPs), Volatile Organic Compounds (VOCs), or Hazardous Air Pollutants (HAPs). There is no regular high-temperature combustion generating SOx, NOx, or other significant gas emissions. Furthermore, to support energy conservation and carbon reduction, all refrigerants used in the air conditioners at TWC's water supply facilities are eco-friendly.

## 4.2.2 Circular Economy and Waste Management Strategies

Raw water extraction requires multiple water treatment steps. The sludge generated during the process necessitates effective waste management strategies to avoid resource wastage. TWC actively develops circular economy models. Through the company's Sustainability Development Committee, we formulate relevant promotion and assessment goals. In TWC's "2025 Sustainability Development Execution Plan," the

Department of Water Supply sets circular economy targets with the following two KPIs, tracking execution semi-annually. In 2025, the reuse rate of water treatment sludge and the reuse rate of water softening calcium carbonate crystals both achieved 99.9%:

- **Achieve a 99.9% annual reuse rate for water treatment sludge.**
- **Achieve a 99.9% annual reuse rate for water softening calcium carbonate crystals.**

Through the circular economy business model, TWC treats waste such as sludge cakes (including water treatment sludge and calcium carbonate crystals) as resources, reintroducing them into the production and consumption cycle. They are primarily transformed into raw materials for cement, red bricks, potting soil, high-pressure bricks, concrete aggregates, and sintered materials, achieving a 99.9% recycling and reuse rate. In 2025, the highest proportion of sludge cake recycling and reuse went into red brick raw materials, totaling 102,227.88 tons; followed by potting soil raw materials, totaling 45,659.7 tons.

### ▼ Proportion of Sludge Cake Recycling and Reuse Methods in 2025

| Treatment Method | Treatment Weight (tons) | Proportion (%) |
|---|---|---|
| **Red Brick Raw Material** | 102,227.88 | 61.99% |
| **Controlled Low-Strength Material (CLSM) Raw Material** [21] | 1,275.41 | 0.77% |
| **Cement Raw Material** | 247.99 | 0.15% |
| **Potting Soil Raw Material** | 45,659.7 | 27.69% |
| **High-Pressure Brick Raw Material** | 1,676.91 | 1.02% |
| **Sintered Raw Material** | 0 | 0% |
| **Concrete Aggregate Raw Material** | 13,833.02 | 8.39% |

To manage the environmental impact of waste generation and track reuse methods and proportions, the company established the "Taiwan Water Corporation Guidelines for the Guidance, Management, and Auditing of Water Treatment Sludge Cake Disposal or Reuse." This effectively manages related resource utilization and disposal, formulating separate guidance and auditing guidelines for treatment vendors and reuse vendors based on their different natures, and specifying audit frequencies for plants, Branches, and the Headquarters to implement tiered guidance and auditing, ensuring no illegal dumping occurs.

TWC's water treatment plants conduct management and auditing according to the "Taiwan Water Corporation Guidelines for the Guidance, Management, and Auditing of Water Treatment Sludge Cake Disposal or Reuse." A summary of the relevant guidance, management, and auditing guidelines is as follows:

[21] Controlled Low-Strength Materials, CLSM

## Taiwan Water Corporation Guidelines for the Guidance, Management, and Auditing of Water Treatment Sludge Cake Disposal or Reuse.

**01. Treatment Facility Management**

- Basic Information Management: Maintain records including facility name, address, responsible person, contact details, treatment methods, and approved capacity
- Operational Records: Document sludge cake quantities, moisture content, weighbridge tickets, and transportation and treatment processes
- Regulatory Compliance: Manage waste disposal plans, reporting, and storage in accordance with the Waste Disposal Act and relevant regulations

**02. Recycling Facility Management**

- Recycling Information Management: Maintain records including facility name, end-use, approved capacity, recycling methods, and product names
- Operational and Product Records: Document sludge cake quantities, moisture content, weighbridge tickets, and product sales information
- Regulatory Compliance: Manage waste disposal plans, reporting, and storage in accordance with the Waste Disposal Act and relevant regulations
- Quality Control: Ensure products meet national standards and establish quality control mechanisms

**03. Guidance and Auditing**

- Audit Scope: Includes verification of consistency between transport vehicles and manifests, alignment between transport routes and approved plans, and proper operation of treatment facilities
- Audit Frequency: Conduct monthly guidance and audits for both treatment and recycling facilities, with records retained

**04. Record Retention**

- Document Management: All relevant records must be properly documented, archived, and retained for five years

### 4.2.3 Wastewater Recycling and Reuse

TWC actively implements water resource recycling and reuse, striving to reduce process effluent volume to fulfill our environmental protection responsibilities. In the water treatment process, apart from the concentrated brine produced by reverse osmosis (RO) equipment at seawater desalination plants and advanced treatment plants, which is not recovered due to its high salt content, wastewater generated by all other water treatment plants is prioritized for recycling and reuse. In 2025, TWC's total annual wastewater recovery reached 98,414,771 $m^3$, raising the recycling and reuse rate to 83.6%. Through

outstanding recovery mechanisms, we not only enhance water resource utilization efficiency but also demonstrate TWC's management capability in stable water resource dispatching and sustainable water use under climate change.

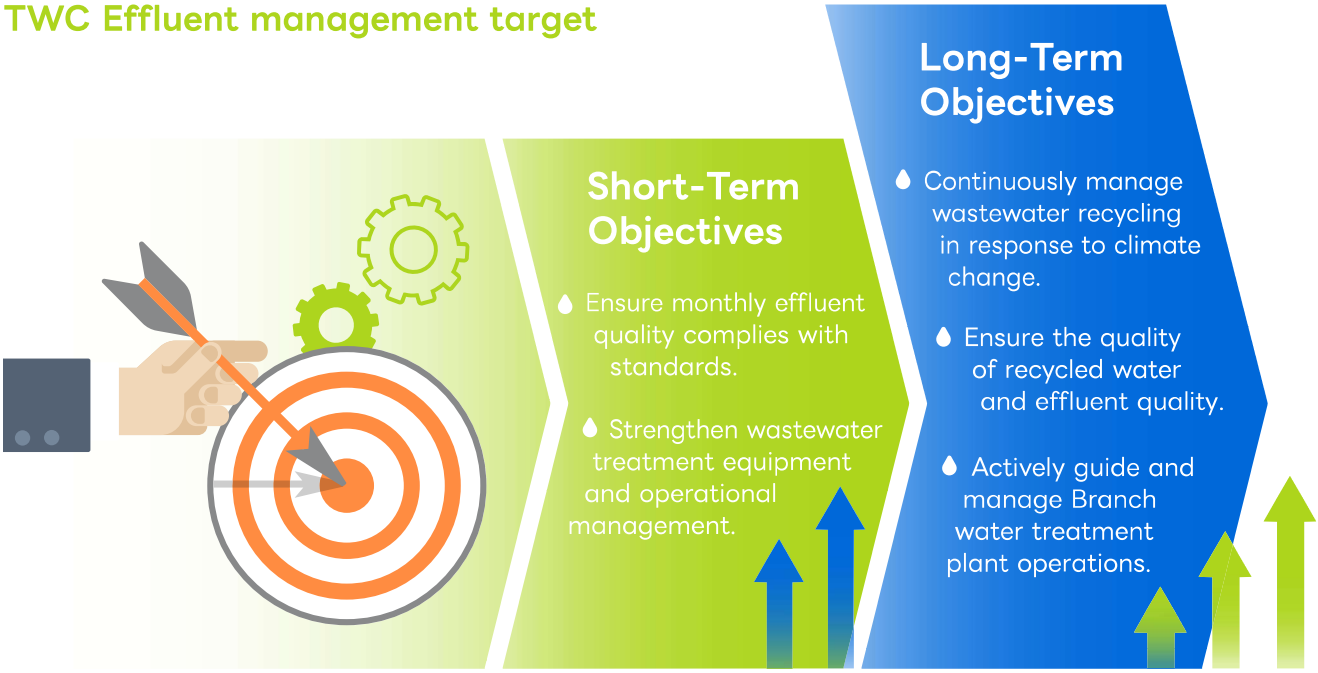
### ▼ TWC Wastewater Recycling Rate Over the Past Three Years

| Year | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Wastewater Recycling Rate** | 83.3% | 80.5% | 83.6% |

## ● 4.2.4 Effluent Quality Management

The quality of effluent directly relates to water resource utilization efficiency, environmental receiving capacity, and potential financial risks. To fulfill our environmental protection responsibility and ensure discharge water quality complies with the national Water Pollution Control Act and relevant regulatory standards, TWC has established a systematic effluent quality management mechanism. Our management measures cover five major dimensions: institutional norms, equipment maintenance, testing and reporting, anomaly response, and continuous improvement. Through high-frequency water quality monitoring, active enhancement of recycling and reuse rates, and rigorous regulatory compliance processes, we strive to minimize the negative impact of our operations on natural water bodies, effectively controlling potential environmental challenges and elevating sustainability management effectiveness.

### TWC Effluent management target



To further improve the quality and quantity of effluent recovery, TWC has specifically formulated relevant regulations for effluent treatment facilities and equipment, and established a promotion task force to actively manage and develop improvement plans. In the "2025 Sustainability Development Execution Plan," the company's Department of Water Supply and Department of Water Quality regulated Effluent Quality Management performance indicators, setting the following two KPIs, tracking execution semi-annually. Both targets were met in 2025:

- **0 environmental fines for effluent quality.**
- **For water treatment plants exceeding 20,000 CMD, test at least once per quarter; select plant areas are tested twice a year.**

## General Rules for the Installation of Discharge Water Treatment Facilities and Goals of the Equipment Efficiency Improvement taskforce

### General Principles for Wastewater Treatment Facility Setup and Application for Discharge or Recycled Water Measures

- Actively guide and manage Branch water treatment plant operations.
- Ensure the normalization of wastewater treatment at each Branch water treatment plant.
- Comply with relevant environmental regulations.
- Serve as a reference for applications concerning new construction, expansion, and improvements to existing wastewater treatment facilities.

### Key Points for the Organization and Responsibilities of the Wastewater Treatment Facility Performance Improvement Task Force

- Review the authenticity and reasonableness of all wastewater data.
- Evaluate the quality and quantity of discharged and recycled wastewater.
- Assess the integrity and operational status of existing wastewater treatment facilities.
- Review the functionality of existing wastewater treatment facilities.
- Develop improvement plans.

All TWC water treatment plants adhere to the "Taiwan Water Corporation Guidelines for the Guidance, Management, and Auditing of Wastewater Treatment Operations." Every year, in addition to evaluating and adjusting the volume of effluent discharged, we actively promote the efficient utilization of water resources, formulate wastewater recycling and reuse policies, and strengthen wastewater treatment equipment and operational management to ensure water quality safety and fulfill our water resource and environmental protection responsibilities. A summary of the relevant guidance, management, and auditing guidelines is as follows:

# Taiwan Water Corporation Guidelines for Waste Water Treatment Operation Management and Inspection

## 01. Regulatory Framework

- In compliance with the Water Pollution Control Act and its related regulations, including the Regulations on Water Pollution Control Measures and Test Reporting Management and the Effluent Standards, ensuring that wastewater treatment operations are conducted lawfully and in full compliance.
- Internal Guidelines: Establishment of the Guidelines for the Guidance, Management, and Auditing of Wastewater Treatment Operations to clearly define the responsibilities and operational procedures of regional offices and plants, thereby enhancing management consistency.

## 02. Monitoring and Testing Mechanisms

- Water Quality Testing: In accordance with the Company' s water quality testing protocols, regular testing is conducted on raw wastewater, recycled water, and effluent, covering indicators such as pH, water temperature, chemical oxygen demand (COD), suspended solids (SS), and total residual chlorine.
- Outsourced Testing: Qualified environmental testing agencies are commissioned, at specified frequencies, to conduct water quality testing to ensure the objectivity and accuracy of results.

## 03. Equipment Management and Performance Enhancement

- Equipment Maintenance: Implementation of the "One Equipment, Three Records" system, comprising operation logs, inspection and maintenance records, and repair records, ensuring proper operation and comprehensive documentation of wastewater treatment equipment.
- Performance Review: Annual preparation of performance evaluation reports for wastewater treatment equipment, submitted to regional offices for review, with continuous efforts to improve equipment efficiency.

## 04. Self-Inspection and Audit System

- Self-Inspection: Responsible plants conduct quarterly self-inspections in accordance with Appendix 1, with records maintained for five years for audit purposes.
- Regional Audits: Regional offices perform guidance audits on a quarterly or semiannual basis, and submit audit results along with follow-up actions to headquarters for review and record.

## 05. Information Reporting and Transparency

- Regular Reporting: Water pollution control measures and testing data are reported online at required intervals to ensure timeliness and transparency of information.
- Record Retention: All relevant monitoring and audit records are documented and retained for five years for internal management and external verification purposes.

# 4.3 Environmental Management

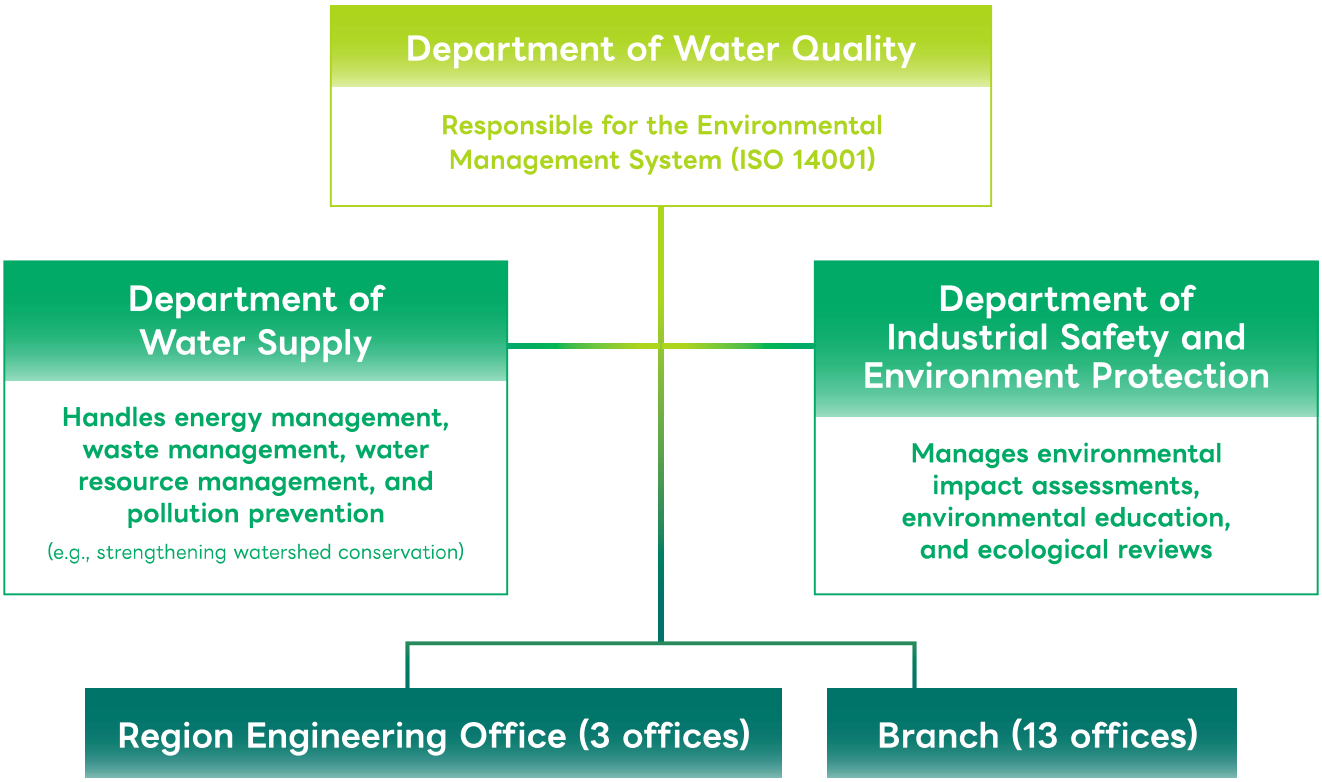
## 4.3.1 Environmental Management Organizational Structure

TWC has established a sound environmental governance system, centered on the model of "Headquarters planning strategy, branches responsible for execution," committed to elevating overall environment performance. The Department of Water Quality serves as the lead unit for environmental management, coordinating environmental governance policies; specific management strategies are formulated by specialized departments according to their responsibilities:

- **Department of Industrial Safety and Environment Protection: Manages environmental impact assessments, environmental regulatory compliance, and environmental education.**
- **Department of Water Supply: Responsible for water resource development and allocation, distribution network efficiency enhancement, and water resources management strategies.**
- **Branches and engineering offices: Execute Energy Management, ecological checks, and the operation of Environmental Management Systems (EMS) within their jurisdictions.**

Through cross-departmental division of responsibilities and collaboration, TWC integrates environmental considerations into operational processes, ensuring that all sustainability strategies are accurately implemented in frontline operations

▼ TWC environmental management structure



TWC officially introduced the ISO 14001 Environmental Management System (EMS) in 2006, aiming to align the practical operations of water supply plants with international environmental management standards. Centered on fulfilling corporate environmental and social responsibility, we reference domestic and international best practices to establish our "Environmental Policy" as the supreme guiding principle for company-wide environmental management. By introducing the ISO 14001 system to water treatment plants and gradually expanding to Branches, TWC comprehensively optimizes the health of water supply plants and enhances water treatment efficiency through the establishment, maintenance, and continuous improvement of management systems. Concurrently, through verification by impartial third-party organizations, we implement eco-friendly operations from an objective and rigorous perspective.

TWC's core mission is to supply "Sufficient Supply, Superior Quality" tap water. While advancing national tap water infrastructure, elevating citizens' living standards, and promoting economic development, we are also acutely aware of the severe global challenge of water scarcity. We are committed to deepening our environmental management system, continuously improving environment performance, realizing sustainable operational goals, and concretely practicing the following commitments:

## ▼ Environmental Policy

| | |
|---|---|
| 1 Regulatory Compliance | Strictly comply with environmental laws and regulations to enhance corporate image. |
| 2 Environmental Protection | Strictly control treatment processes to eliminate pollution opportunities. |
| 3 Resource Utilization | Recycle backwash wastewater and reuse sludge cakes. |
| 4 Full Participation | Popularize education and training to strengthen environmental awareness. |
| 5 Community Harmony | Strengthen communication and coordination to be a good neighbor. |
| 6 Continuous Improvement | Elevate environment performance to ensure sustainable operations. |

The Liyutan Water Supply Plant in Taichung served as the priority demonstration target, obtaining ISO 14001 certification in 2008. Building on this successful experience, TWC gradually promoted the new ISO 14001:2015 certification at major water supply plants. To date, certifications have been achieved for Liyutan, Chengcing Lake, Nanhua, Kaotan, Wenggongyuan, Dongxing, Shengou, Fengshan, Gongyuan, Changhua No.3, Banxin, Suopodang, Lijia, Xinshan, Longtan, Baoshan, Mudan, Pingzhen, Gongliao,

Wushantou, Hushan, Qingzhou, Jiji, Luzhu, Danan, Shuishang, Tanding, Hsinchu No.2, Pingding, Linnei, Lingkou, Fengyuan No.1 and No.2, Shimen, Nuannuan, Pingtung, Zengwen No.1, and Hsinchu No.1. By the end of 2025, 38 water treatment plants have successfully passed verification and continue to maintain the validity of their certificates.

## 4.3.2 Environmental Accounting Managemen

Environmental accounting management is a critical tool that integrates environmental costs and benefits into the corporate financial evaluation system, aiming to reflect the substantive impact of corporate operations on the environment through quantitative data. Implementing environmental accounting enables a more comprehensive grasp of the correlation between environmental expenditures and operational performance, thereby facilitating precise strategies to reduce the environmental footprint and serving as a vital decision-making basis balancing environmental protection and financial resilience.

TWC's environmental protection expenditures are investments and expenses required to prevent, mitigate, avoid, or eliminate the environmental impacts of pollution generated by production, as well as post-disaster reconstruction or restoration. We actively advance environmental protection and pollution prevention at all company plants and stations, strictly adhering to relevant environmental laws to reduce the environmental impact of various pollutants generated during production and water supply processes, and effectively achieving our resource utilization goal of waste reuse. The execution focus and expenditure structure for environmental protection are as follows:

- **Water Pollution Control and Environmental Monitoring**

  Strictly comply with the Water Pollution Control Act and the Environmental Impact Assessment Act to implement the operation and discharge permit management of wastewater treatment at water treatment plants. Related expenditures cover outsourced testing of wastewater and sludge, environmental investigation and monitoring, environmental education and training, and various statutory fees (such as air pollution, water pollution, and soil pollution remediation fees).

- **Waste Reduction and Resource Circulation:**

  Execute the clearance and treatment of water treatment sludge in accordance with the Waste Disposal Act, reducing the sludge moisture content to the internal control standard of 65% through mechanical dewatering and sun-drying to lower the treatment burden. In 2025, the company proactively promoted the resource recovery of sludge cakes, achieving a 99.9% reuse rate. We successfully transformed sludge cakes into products such as red bricks, potting soil, concrete aggregates, and cement raw materials, realizing circular economy goals.

- **Environmental Protection Capital Expenditure:**

  Invest project funds targeting air pollution, water pollution, noise control, and construction waste disposal during operations and construction to ensure all engineering projects comply with eco-friendly standards.

### ▼ TWC Environmental Protection Expenditures Over the Past Three

| Year | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Expenditure (NT$ 100 Million)** | 9.52 | 8.00 | 8.14 |

# 05

# RELATIONSHIP ENHANCEMENT


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台灣自來水公司 第九區管理處
Ninth Branch, Taiwan Water Corporation
花蓮給水廠
Hualien Water Treatment Plant

# 5 Relationship Enhancement

## Sustainable Operations and Community Engagement

TWC deepens mutual trust with communities through a stable water supply, disaster response, and infrastructure investments. Concurrently, a systematic supply chain management mechanism extends ESG requirements to business partners, mitigating operational risks and elevating overall social responsibility performance:

Disaster Response: Supported post-disaster repairs following Typhoon Danas and promptly addressed the Matai'an incident to **ensure water safety**.

Promoted water supply improvement projects in remote areas to bridge the urban-rural gap, approving a total of **204 related construction projects** in 2025.

Supply Chain Scale: Procurement expenditure reached approximately **NTD 32.174 billion** in 2025.

## Cultivating a Friendly Workplace

TWC maintains workforce stability and enhances employee well-being through a comprehensive compensation system, robust benefits, and diversity and inclusion policies. By integrating training and health management, we are perfecting the foundation for the organization's long-term development:

Workforce Overview: In 2025, TWC employed 5,897 people, with a new hire rate of 7.50%, surpassing the turnover rate of 5.68%, indicating **stable workforce growth**.

Supportive Childcare Environment: Achieved a 100% parental leave reinstatement rate and a 74% retention rate, providing **comprehensive insurance** and **family support measures**.

Diverse Development: Conducted occupational health and training for **8,050** attendances in 2025, **safeguarded employment rights for minority groups**, and continuously strengthened workplace **gender equality training** with **1,932** attendances.

indigenous **1.3%**
disabilities **3.0%**

## Occupational Safety Risk Management System

With "zero major occupational accidents" as our core objective, TWC has implemented international occupational safety systems integrated with risk assessment and incident feedback mechanisms. We continuously monitor the safety management of employees and contractors to ensure operational stability and regulatory compliance. We create a safety-first work environment through the following actions:

Comprehensive Implementation of **ISO 45001** and **TOSHMS**, covering all employees and non-employee workers.

Safety Performance: **Zero employee occupational accidents** in 2025, contractor occupational accidents reduced to 3 incidents, and zero labor inspection violations.

# 5.1 Connecting with Society

## 5.1.1 Supply Chain Management

TWC's operations rely heavily on engineering contracting, equipment supply, and various professional services. The supply chain is not merely an operational extension but directly impacts service quality and the fulfilment of social responsibilities. We view Supply Chain Management as a critical component of sustainable governance. Through systematic management, risk control, and capacity building, we progressively strengthen responsible connections with our business partners. In 2025, procurement across various services, engineering, and materials from partner suppliers reached approximately NTD 7.933 billion for the Headquarters, with the total company procurement amounting to NTD 32.174 billion. In commercial dealings, TWC enforces fundamental requirements for environmental, social, and regulatory compliance through the following mechanisms:

- **Procurement Contracts:**

  Universally adopt templates from the Public Construction Commission. Through mandatory legal compliance clauses (such as environmental and occupational safety regulations) and incentive/penalty mechanisms (e.g., green product declarations, liquidated damages, and suspension of valuation payments), we essentially mandate that suppliers execute ESG-related practices.

- **Communication Channels:**

  Establish communication mechanisms with suppliers to ensure they understand TWC's sustainability standards and compliance expectations.

- **Anti-corruption Management:**

  Conduct at least two anti-corruption training sessions annually. In 2025, eight sessions were held (totalling 29 hours and 520 participants) to strengthen the integrity awareness and compliance concepts of suppliers and business partners. Attendees included internal TWC employees, as well as all relevant contractors and outsourced personnel. The diverse topics covered anti-corruption case studies in state-owned enterprises, types and examples of corruption crimes, diverse strategies for integrity governance, occupational safety and anti-profiteering/public convenience integrity promotion, engineering quality and citizen supervision education, and key considerations for contract management.

Furthermore, regarding contractors and outsourced personnel (such as construction workers, equipment technicians, cleaning, and security staff), the company has established four major occupational health and safety management systems. These systems integrate labour risks related to business relationships into the management framework to mitigate occupational health and safety impacts directly associated with our operational activities.

- **Site Access Control Mechanism:**

  All engineering contracts incorporate clauses related to occupational health and safety, explicitly requiring contractors to comply with the Occupational Safety and Health Act and relevant regulations. Contractors must submit safety plans and proof of educational training prior to site entry, and construction may only commence upon approval. Additionally, personnel qualification and certification requirements are strengthened based on the nature of the work, and the assignment of operation supervisors and on-site management responsibilities are clearly defined for high-risk operations.

- **Risk Control Mechanism:**

  Prior to construction, contractors must complete hazard identification and risk assessments, proposing corresponding control measures and personal protective equipment requirements for review before execution. Through routine and ad-hoc safety inspections and on-site patrols, TWC continuously verifies the implementation of safety measures, integrating these findings into our management and evaluation mechanisms. For major deficiencies, immediate work stoppage and deadlines for improvement are enforced to prevent accidents.

- **Capacity Building Mechanism:**

  Prior to site access, contractors must provide hazard communication and safety training to their workers, outlining operational risks, preventive measures, and emergency response procedures. For high-risk or specialized operations, TWC also regularly organizes relevant seminars to assist contractors in enhancing their safety management and operational capabilities.

- **Feedback and Improvement Mechanism:**

  In the event of an occupational accident involving a contractor, immediate reporting and cooperation with investigations are required according to regulations. Major incidents are reported to the Board of Directors following standard procedures, and an investigation review meeting is convened to analyse the root causes and formulate corrective actions. These improvement measures are then fed back into educational training and management system revisions to continuously strengthen overall safety management effectiveness.

## 5.1.2 Community Relations

Water supply is not only a foundational service but also a critical bedrock that sustains community operations and quality of life. Whether in daily operations or during emergencies, a high degree of interdependence exists between the company and local communities. Therefore, we continuously deepen our connection and trust with communities through stable water supply, immediate disaster response, and infrastructure improvements.

- **Becoming a Frontline Support Force During Disasters**

  When extreme weather events occur, water supply stability and infrastructure safety become prerequisites for community recovery. During Typhoon Danas, TWC immediately mobilized its workforce. In addition to repairing water supply facilities, we assisted disaster-stricken residents in the Tainan area with home repairs, alleviating their post-disaster living pressures.

- **Proactively Managing Risks to Safeguard Water Safety**

  In the face of unexpected events, TWC adopts a management approach that equally emphasizes prevention and immediate response. Following the Matai'an incident, the company swiftly dispatched personnel to the site to confirm pipeline conditions and conduct system testing, ensuring that Drinking Water Quality and transmission safety remained unaffected.

▼ Assisting with Roof Repairs in Tainan Following Typhoon Danas



▼ Matai'an Overflow Incident in Hualien: Deploying Water Trucks for Mobile Water Supply



- **Continuously Improving Water Supply Conditions in Remote Areas**

  Beyond disaster response, TWC is deeply committed to long-term infrastructure improvements, striving to bridge the urban-rural water supply gap. Through the "Phase V Water Supply Improvement Plan for Areas Without Tap Water – Water Pipeline Extension Project," we are progressively extending water supply systems to regions that previously lacked stable access to tap water, thereby improving residents' quality of life.

▼ Water Pipeline Extension Project in Lunding Village, Guiren District



▼ Water Pipeline Extension Project in Areas Without Tap Water Near Baoshan Reservoir

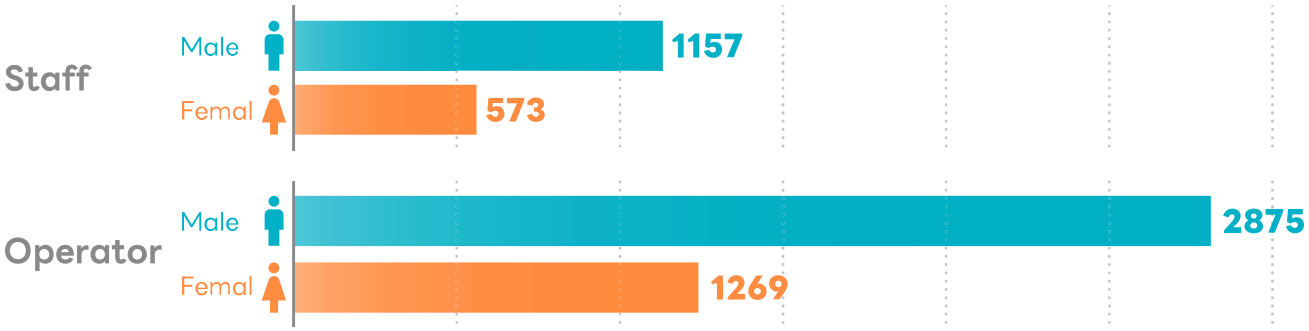


# 5.2 Engaging with Employees

## 5.2.1 Employee Composition

In 2025, TWC had a total of 5,897 employees, comprising 4,040 males and 1,857 females. The company does not employ personnel from outside the Republic of China (Taiwan). The primary workforce consists of staff and operators[22]. In addition, there are a total of 354.5 workers who are not employees.[23]

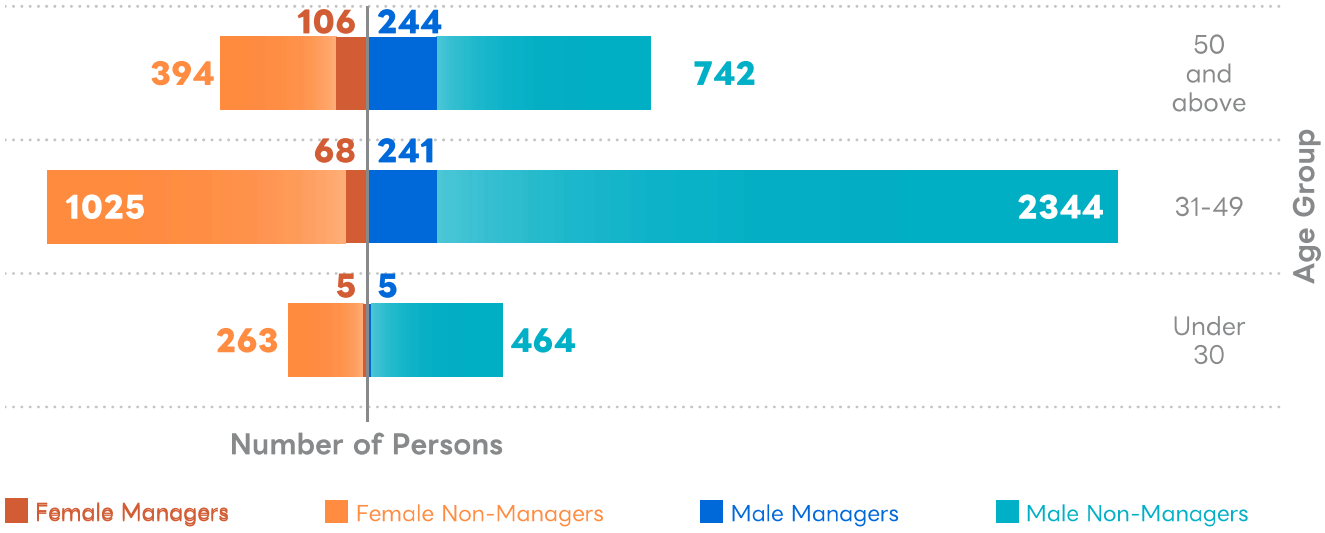
▼ TWC Employee Type and Gender Statistics in 2025




[22] TWC also employs other categories of personnel, including 3 contract-based employees, 9 temporary contract employees, 11 tourism area staff, and 0 temporary workers.

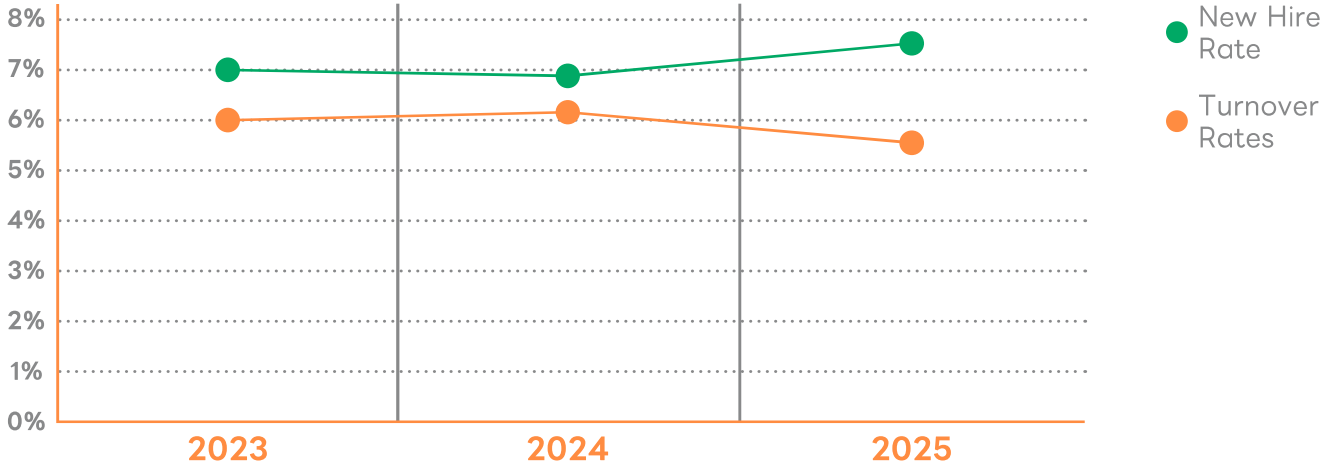
[23] In addition, outsourced personnel include 55 customer service staff, 182 contracted operations personnel, 23 security staff, 36.5 cleaning staff (with part-time personnel counted as 0.5 FTE), 14 on-site information system personnel, and 44 on-site geographic information system maintenance personnel.

## ▼ TWC Employee Age and Gender Structure in 2025




Over the past three years, TWC's workforce turnover has remained stable. The new hire rate[24] increased from 6.96% in 2023 and 6.87% in 2024 to 7.50% in 2025, surpassing the turnover rate[25] for the same period (5.68% in 2025), indicating a steady growth in workforce scale. New hires are predominantly in the 30-50 age group (148 males and 84 females in 2025), while the under-30 demographic continues to be supplemented (127 males and 67 females). Separations are concentrated in the over-51 age group (116 males and 55 females in 2025), reflecting retirement as the primary driver of turnover. Further details on new hires and separations categorized by age and gender are provided in the tables below. TWC will maintain workforce structural stability by continuously recruiting mid-career and younger talent to seamlessly replace retiring senior personnel.

## ▼ TWC New Hire and Turnover Rates Over the Past Three Year




[24] The number of new hires is calculated without deducting employees who leave within the same year. The new hire rate is defined as the number of new hires in the reporting year divided by the total number of employees at operating locations at year-end.

[25] Employee departures are defined to include retirements and personnel reassigned from the Department of Civil Service Ethics, while excluding contract worker fatalities. The employee turnover rate is calculated as the number of employees who left during the reporting year divided by the total number of employees at operating locations at year-end.

### ▼ TWC New Hire Rates Over the Past Three Year

| Year | 2023 | | | | 2024 | | | | 2025 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gender | Male | | Female | | Male | | Female | | Male | | Female | |
| Category / Age | Number of Employees | New Hire Rate (%) | Number of Employees | New Hire Rate (%) | Number of Employees | New Hire Rate (%) | Number of Employees | New Hire Rate (%) | Number of Employees | New Hire Rate (%) | Number of Employees | New Hire Rate (%) |
| Under 30 years old | 109 | 1.89 | 63 | 1.09 | 96 | 1.65 | 67 | 1.15 | 127 | 2.15 | 67 | 1.14 |
| 30-50 years old | 135 | 2.34 | 86 | 1.49 | 138 | 2.38 | 85 | 1.47 | 148 | 2.51 | 84 | 1.42 |
| Above 51 years old | 8 | 0.14 | 1 | 0.02 | 7 | 0.12 | 6 | 0.1 | 16 | 0.27 | 0 | 0 |
| Total New Hires | 402 | | | | 399 | | | | 442 | | | |
| Total Number of Employees | 5,779 | | | | 5,801 | | | | 5,897 | | | |
| Total of new hire rate | **6.96%** | | | | **6.87%** | | | | **7.50%** | | | |

### ▼ TWC Turnover Rates Over the Past Three Years

| Year | 2023 | | | | 2024 | | | | 2025 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gender | Male | | Female | | Male | | Female | | Male | | Female | |
| Category / Age | Number of Employees | Turnover rate (%) | Number of Employees | Turnover rate (%) | Number of Employees | Turnover rate (%) | Number of Employees | Turnover rate (%) | Number of Employees | Turnover rate (%) | Number of Employees | Turnover rate (%) |
| Under 30 years old | 10 | 0.17 | 31 | 0.54 | 10 | 0.17 | 30 | 0.52 | 37 | 0.63 | 19 | 0.32 |
| 30-50 years old | 18 | 0.31 | 78 | 1.35 | 30 | 0.52 | 88 | 1.52 | 80 | 1.36 | 28 | 0.47 |
| Above 51 years old | 42 | 0.73 | 154 | 2.66 | 47 | 0.81 | 134 | 2.31 | 116 | 1.97 | 55 | 0.93 |
| Total New Hires | 350 | | | | 371 | | | | 335 | | | |
| Total Number of Employees | 5,779 | | | | 5,801 | | | | 5,897 | | | |
| Total Turnover Rate | **6.06%** | | | | **6.40%** | | | | **5.68%** | | | |

## ● 5.2.2 Compensation and Retirement Benefit System

TWC is committed to fostering an equal and friendly work environment, with concrete actions including from system establishment to practical implementation. We possess a comprehensive, fair, and reasonable compensation system, retirement protection mechanism, and remuneration framework, forming a fair and competitive working environment. . The overarching policy centers on operational performance and

social impact goals such as labor equity, gender equality, and human rights protection, utilizing pay ratio management and internal equity monitoring mechanisms. Simultaneously, we actively provide employees with various benefits and protections, creating a positive and harmonious work environment to support the achievement of organizational sustainability goals.

The institutional frameworks covering remuneration policies, welfare protections, pay ratios, and retirement plans are detailed below:

- **Salary System and Structure**

In accordance with relevant regulations for state-owned enterprises, TWC has established a fair and transparent compensation system. With "fairness, institutionalization, and performance-orientation" at its core, the system links operational performance with employee contributions to design a reasonable remuneration mechanism that continuously supports the organization's stable operations and long-term development.[26]

TWC employee compensation comprises three main components, each with clear determination criteria and processes. This comprehensive remuneration system not only complies with state-owned enterprise regulations but also objectively reflects employee effort and output.

### ▼ TWC Employee Salary Structure

| Basic Salary | Remote Area Allowance | Operational Performance Bonus System |
|---|---|---|
| Basic salary is the primary source of income. Under Point 2 of the "Guidelines for the Management of Personnel Expenses and Salaries for Enterprises under the Ministry of Economic Affairs," the company sets standards based on its specific characteristics, productivity, and operational performance. These are approved by the Board of Directors and submitted to the MOEA for record to ensure reasonableness. | For employees working in remote areas or offshore islands, the company provides a remote area allowance in accordance with the government-mandated "Regional Allowance Table for Public Servants and Teachers" and the "Rationalization Adjustment Plan for Regional Allowances for Public Servants and Teachers," reflecting our appreciation for colleagues serving in challenging environments. | Implemented in accordance with the "Operational Guidelines for the Implementation of Operational Performance Bonuses for Enterprises under the MOEA" and "Precautions for the Issuance of Operational Performance Bonuses by TWC." Bonuses are reasonably distributed based on the overall performance of each unit, as well as the annual work performance and individual contributions of employees, to incentivize outstanding performance. |

For senior management, the remuneration of TWC Board members is governed by the "Schedule of Monthly Remuneration Allowances for Directors and Supervisors of Enterprises under the MOEA." The annual salary and retirement/severance packages for the Chairperson and President are handled according to Point 4 of the "Guidelines for the Management of Personnel Expenses and Salaries for Enterprises under the MOEA" and the "Principles for Retirement and Compassionate Payments for Heads and Managers of State-Owned Enterprises." Currently, the company has not yet linked executive compensation to sustainability goals.

[26] The Company does not establish a separate Remuneration Committee. Compensation policies and remuneration decision-making processes are handled by the Board of Directors in accordance with applicable laws and regulations and are subject to oversight by the competent authorities. As a state-owned enterprise, compensation-related matters are managed in line with statutory procedures, and no additional consultation with stakeholders or shareholders is conducted for inclusion in remuneration decision-making.

## ▼ TWC Senior Management Salary Structure

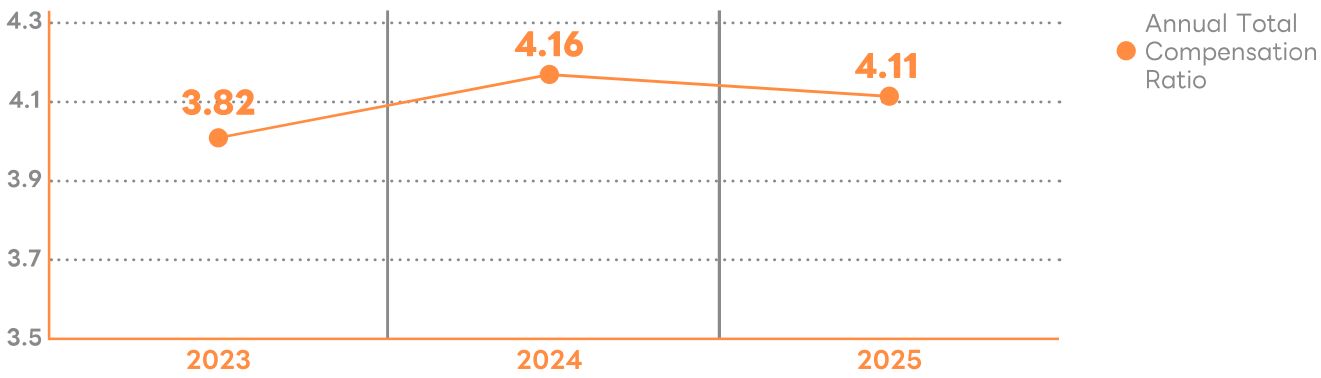
| Board Members | Chairperson and President |
|---|---|
| ◆ **Independent board members: Monthly allowance of NTD 30,000**<br>◆ **Concurrent board members based on the nature of their primary occupation**<br>◦ Military/Civil Servants: Monthly allowance of NTD 8,500<br>◦ Teachers in public colleges/universities and private individuals: Monthly allowance of NTD 10,400<br>◆ **No other additional bonuses, profit-sharing, or retirement/severance pay** | ◆ **Salary Range: Not exceeding the annual salary of the MOEA**<br>◆ **Salary Evaluation Factors: Evaluated by the MOEA based on enterprise scale, achievement of operational goals, and level of operational performance**<br>◆ **Approval Procedure: Approved for payment by the MOEA and submitted to the Executive Yuan for record** |

- **Internal Pay Equity**

In accordance with Article 31 of the Act Governing the Administration of State-Owned Enterprises, TWC recruits new employees through a fair, impartial, and open examination process. The company strictly prohibits the employment of child labor and upholds a non-discrimination policy based on race, class, language, ideology, religion, political affiliation, place of origin, birthplace, gender, sexual orientation, age, marital status, appearance, or disability. All employees are compensated according to the same salary standards. In 2025, the starting monthly salary for entry-level staff is NTD 46,350 and for operators is NTD 34,720, which corresponds to 1.62:1 and 1.21:1 ratios, respectively, compared to the local (Taiwan) minimum wage of NTD 28,590. For all employees, based on the annual compensation statistics of actual active personnel as of December 31, 2025, differences in remuneration between male and female managers and non-managers are attributed to variations in job positions, years of service, and performance.

To ensure pay equity, the company regularly monitors internal pay gaps to guarantee reasonable salary distribution. In 2025, the ratio of the total annual compensation of the highest-paid individual to the median total annual compensation of all other employees (excluding the highest-paid individual) was 4.11. The ratio between the percentage increase in total annual compensation of the highest-paid individual and the median percentage increase for all other employees was 0.7.

## ▼ TWC Annual Total Compensation Ratio Over the Past Three Year



Additionally, the table below shows the 2025 pay ratio by employment category and gender. The primary reason for the higher total remuneration among female managers at TWC is that female managers, on average, possess more seniority than their male counterparts, resulting in a higher average pay ratio. However, the overall number of females in both management and non-management positions remains significantly lower than that of males. Moving forward, TWC will continue to promote pay equity and equal employment opportunities.

### ▼ 2025 Gender Pay Ratio by Job Category

| Pay Ratio by Employment Category | Number | | Total Remuneration (NTD) | | Pay Ratio [27] | |
|---|---|---|---|---|---|---|
| | Female | Male | Female | Male | Female | Male |
| Management | 175 | 490 | 311,980,096 | 778,357,452 | 1.12 | 1 |
| Non-Management | 1,682 | 3,550 | 1,394,093,587 | 2,835,211,984 | 1.04 | 1 |

- **Retirement System**

The company's employees are classified as staff, and operators, with their retirement managed in accordance with the "Retirement, Survivor Benefits, and Severance Regulations for Personnel of Enterprises under the MOEA." The retirement system is structured as follows:

**✓ Staff:**

In August 2006, the company established the "Staff Retirement Fund Management Committee." A monthly retirement contribution equivalent to 8% of the total salary is allocated and deposited monthly into a dedicated retirement fund account at the Bank of Taiwan under the committee's name. At year-end, based on the actuarial pension report's "recognized pension expense for the period," any remaining unfunded balance is fully transferred to the staff retirement fund account. As of the end of 2025, the balance in the staff retirement fund account stood at NTD 301,397,616.

**✓ Operators:**

- **Operators with Seniority under the Old Pension Scheme:** The new Labor Pension Scheme took effect on July 1, 2005. Employees who joined prior to this date retain seniority under the old pension system. Under the old scheme, a retirement contribution of 2% of the total monthly salary for eligible employees is allocated to the Labor Retirement Reserve Supervisory Committee, which deposits it monthly into a dedicated Labor Retirement Reserve account at the Bank of Taiwan. In compliance with Article 56 of the Labor Standards Act, TWC made a one-time lump-sum payment of NTD 1,632,704,355 in 2016 to cover the account shortfall. In subsequent years, the company has continued to contribute 2% of total monthly salaries. At year-end, actuarial pension evaluations estimate the required expenses for employee benefit liabilities to ensure sufficient funding, thereby safeguarding colleagues' rights to claim future pensions. As of the end of 2025, the balance in the Labor Retirement Reserve account was NTD 1,954,490,946, and no shortfalls requiring supplementary contributions occurred throughout the year.

- **Operators with Seniority under the New Pension Scheme:** For employees who joined on or after July 1, 2005, as well as those who joined before June 30, 2005, but opted into the new pension scheme, TWC operates under the defined contribution system of the "Labor Pension Act." The company contributes 6% of the employee's monthly salary to an individual account at the Bureau of Labor Insurance. In addition, employees may voluntarily contribute up to an additional 6% of their salary to their individual pension account.

[27] Ratio of female to male compensation (annual salary ratio): Defined as the average annual salary of female employees in a given category divided by the average annual salary of male employees in the same category.

## 5.2.3 Benefits and Protections

In addition to legally mandated labor and health insurance, TWC further strengthens support for employees across different life stages through group insurance, subsidy programs, and friendly workplace initiatives.

### A. Basic Insurance and Protection Systems

Regarding personal protection, the company provides group life[28] and accident insurance[29] to ensure fundamental financial security for active employees. Concurrently, a compassionate payment system[30] is in place for major accidents occurring during the execution of duties to enhance support for employees and their families. For medical coverage, alongside labor insurance and national health insurance, TWC offers group medical insurance that covers inpatient care, major illnesses, and cancer, bolstering employees' resilience against health risks. Furthermore, TWC provides disability and injury coverage, dispensing appropriate payouts based on the nature of the incident. This creates a comprehensive safety net extending from routine health management to major emergency response.

- **Key coverage components include:**

**Group Life Insurance and Accidental Death Coverage**

**Group Medical Insurance (including inpatient care, major illnesses, and cancer)**

**Accidental Injury and Disability Benefits Mechanism**

**Compassionate Payment System for Duty-Related Casualties**

### B. Family care and workplace friendly measures

TWC values work-life balance for its employees and fosters a friendly, inclusive work environment through diverse support measures. The company provides all statutory leave types (such as maternity leave, prenatal checkup accompaniment and paternity leave) and goes beyond legal requirements to design superior parental care initiatives. For instance, employees caring for children under three years old may apply for reduced working hours while continuing to receive pay, and they can apply for up to three years of unpaid parental leave, exceeding the statutory two-year limit. On another front, the company provides educational scholarships for employees' children, as well as marriage and childbirth subsidies, alleviating financial burdens during critical life stages and elevating overall well-being.

Observations of practical implementation indicate that the unpaid parental leave system enjoys high utilization and a stable return rate. The reinstatement rate for employees applying to return to work in 2025 reached 100%, indicating smooth systemic operation. The post-reinstatement retention rate also maintained a solid level, demonstrating that the company can sustain workforce stability while supporting employees' family responsibilities.

[28] TWC provides all employees with group term life insurance coverage of NTD 500,000.

[29] Group accidental death and disability insurance coverage of NTD 500,000 is provided, with benefits paid according to disability levels, along with additional coverage for accidental hospitalization and capped reimbursement for accidental medical expenses.

[30] The Company has established the "Guidelines for Consolation Payments for Employee Accidental Injury or Death in the Line of Duty," under which, in the event of an employee' s death arising from work-related duties, a consolation payment ranging from NTD 6 million to NTD 10 million is provided.

| Item | 2023 | | | 2024 | | | 2025 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Number of employees eligible for parental leave[31] | 277 | 141 | 418 | 181 | 114 | 295 | 63 | 37 | 100 |
| Number of employees taking parental leave[32] | 13 | 15 | 28 | 12 | 30 | 42 | 17 | 24 | 41 |
| Number of employees due to return to work from parental leave[33] | 11 | 7 | 18 | 12 | 19 | 31 | 19 | 27 | 46 |
| Number of employees applying for reinstatement | 10 | 7 | 17 | 12 | 19 | 31 | 19 | 27 | 46 |
| Total number of employees reinstated from parental leave | 10 | 32 | 42 | 13 | 19 | 32 | 12 | 30 | 42 |
| Number of reinstated employees completing one year of service | 8 | 29 | 37 | 11 | 16 | 27 | 12 | 19 | 31 |
| Parental leave retention rate | 80% | 91% | 88% | 85% | 84% | 84% | 100% | 63% | 74% |

### C. Other Benefits

Additionally, TWC provides holiday bonuses for the three major traditional festivals and employee retirement welfare funds, among other related bonuses, to offer employees an enhanced quality of life.[34]

## 5.2.4 Health Promotion

TWC adheres to occupational safety and health regulations and internal management systems to establish a comprehensive occupational health service system. TWC has constructed a comprehensive occupational health service framework. Ranging from health risk prevention and routine health management to health promotion activities, we provide holistic support for our employees' physical and mental well-being while mitigating the risks of occupational injuries and diseases. By contracting with qualified medical institutions, we deploy credentialed physicians and nurses to deliver services. Furthermore, tiered health management measures are formulated based on employees' operational characteristics and potential health risks.

[31] The number of employees eligible to apply for parental leave without pay in 2025 is calculated based on personnel who applied for maternity (prenatal) leave or paternity (prenatal) leave between January 1, 2025, and December 31, 2025.

[32] The number of employees who applied for parental leave without pay is calculated based on personnel who submitted and received approval for such leave between January 1, 2025, and December 31, 2025.

[33] The number of employees expected to return to work from parental leave without pay is calculated based on those whose leave period expired between January 1, 2025, and December 31, 2025, and who were required to resume their positions and salary in accordance with legal provisions or their approved leave duration.

[34] In the current year, an actuarial valuation was completed in accordance with IAS 19 Employee Benefits. A provision for employee benefit liabilities of NTD 3,322,863,928 was recognized on the balance sheet, and a net loss after tax of NTD 141,699,436 from remeasurements of defined benefit plans was recognized in other comprehensive income. (Valuation date: December 31, 2025). Public Service Insurance Pension: In response to the amendment and implementation of Article 48 of the Public Servants Insurance Act on June 19, 2015, the Company has included its employees within the scope of benefits under the Public Service Insurance Pension scheme, with retroactive application effective from June 1, 2014. Based on the actuarial valuation results for the current year, a provision for employee benefit liabilities of NTD 1,602,337,196 was recognized on the balance sheet, and a net loss after tax of NTD 46,621,646 from remeasurements of defined benefit plans was recognized in other comprehensive income. (Valuation date: December 31, 2025)

Services include employee health examinations, on-site health services, and diverse health promotion activities. Through periodic reviews and rolling adjustments, we ensure the appropriateness and efficacy of these health services.

Regarding health management mechanisms, TWC conducts annual periodic health examinations to continuously monitor employee health status. General health exams cover various systemic physical assessments, chest X-rays, and blood biochemical tests to ascertain overall health. For employees engaged in operations with particular health hazards, specific health examinations are arranged to evaluate exposure risks such as noise, dust, heavy metals, and chemicals, thereby strengthening monitoring and protection for high-risk groups.

To enhance service accessibility, TWC ensures that occupational health services are available to all employees. Through internal announcements and advocacy mechanisms, we elevate employee awareness and utilization of health resources, encouraging proactive participation in health management. In terms of information security, the company rigorously enforces privacy protections for employee health data. Relevant records are managed and securely stored by dedicated personnel, electronic data is encrypted, and access is restricted to authorized individuals. Such health information is utilized exclusively for health evaluation and management and is never factored into compensation or performance appraisals, strictly safeguarding employee rights.

The 2025 health examination implementation statistics are presented in the table below. Furthermore, TWC has formulated an independent labor health management plan to administer labor health services. In 2025, contracted physicians providing occupational health services conducted a total of 84 on-site sessions, while 4 full-time hired nurses and contracted occupational health nurses conducted 80 on-site sessions, providing health guidance, assessment, recommendations, or consultation services to employees. However, health services have not yet been extended to contractors.

### ▼ TWC 2025 Health Examination Implementation Statistics

| Item | General Health Examination | Special Health Examination |
|---|---|---|
| **Examination Items** | • Investigation of work history, past medical history, lifestyle habits, and subjective symptoms.<br>• Physical examination and consultation regarding height, weight, waist circumference, vision, color vision, hearing, blood pressure, and various body systems or parts.<br>• Chest X-ray radiography examination.<br>• Examination of urine protein and occult blood.<br>• Examination of haemoglobin and white blood cell count.<br>• Examination of blood sugar, serum alanine aminotransferase, creatinine, cholesterol, triglycerides, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol.<br>• Other examinations designated by the central competent authority | Specific health examinations are implemented according to the operation category of each unit: Noise, dust, lead operations, n-hexane operations, manganese and its inorganic compounds, formaldehyde, mercury and its inorganic compounds, chromic acid, dichromate salts, ethylmercury compounds, vinyl chloride, and ionizing radiation. |
| **Number of Examinees** | 3,525 | 232 |

## ▼ TWC 2025 Health Promotion Plan

| Plan Name | Corresponding Health Risk | Execution Method |
|---|---|---|
| **Health Education** | Chronic diseases, unhealthy lifestyle habits | • Regularly conduct health seminars<br>• Provide health newsletters<br>• Organize health promotion activities |
| **Hygiene Guidance** | Infectious diseases | • Strengthen hygiene advocacy<br>• Post handwashing guidelines |
| **Maternal Health Protection** | Pregnancy complications, maladaptation to returning to work postpartum | • Provide individual health consultation and job suitability assessment for maternal protection cases<br>• Appropriately adjust work content<br>• Establish breastfeeding room |
| **Prevention of Unlawful Workplace Infringements** | Avoid impacting work efficiency and physical/ mental health | • The head of the company signs and announces the "Written Declaration Prohibiting Unlawful Workplace Infringements"<br>• Annual evaluation of the "Hazard Identification and Risk Assessment Form for the Prevention of Unlawful Infringement in the Workplace" by the promotion committee's executive secretary or concurrently assigned unit OH&S personnel<br>• Each unit evaluates the "Checklist for the Workplace Environment of Unlawful Workplace Infringement Prevention" based on the working environment<br>• Conduct educational training courses |
| **Recommendations for Physical and Mental Health Protection Measures** | Excessive stress, emotional distress | • Provide Employee Assistance Programs (EAP)<br>• Conduct EAP-related courses<br>• Provide psychological counselling referral resources |
| **Cancer Screening** | Inability to effectively achieve early detection and early treatment | • Advocate in coordination with government-subsidized screening policies<br>• Provide screening services in conjunction with employee health check-ups<br>• Collaborate with medical institutions to arrange on-site screenings |
| **Vaccination** | Infectious diseases | • Advocate in coordination with government-subsidized screening policies<br>• Collaborate with medical institutions to arrange on-site vaccinations |
| **Workplace Bullying Education and Training** | Impacting work efficiency and physical/mental health | • Educational training (online and in-person)<br>• Poster advocacy<br>• Email dissemination and formulation of prevention<br>• Handling guidelines (plans) |

▼ TWC Yoga Activity



▼ TWC General Employee Workplace Bullying Education and Training



▼ Physician On-site Service



## ● 5.2.5 Training and Development

TWC places great emphasis on talent cultivation. The company established a Professional Training Center, which was reorganized into the Department of Research and Training in 2026, to oversee the planning and execution of employee training programs. From establishing foundational technical skills for new hires to enhancing and refining specialized expertise, and fostering leadership development, the company continually invests resources to ensure employees advance their professional competencies. This commitment guarantees the effective transfer of vital technical skills, enabling talent to fully leverage their strengths and deliver superior water supply services to the public.

▼ TWC 2025 Training Hours Statistics[35]

| Education and Training Item/Job Level | Management | | Non-Management | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| Total Number of Employees | 490 | 175 | 3550 | 1682 |
| Total Training Hours | 5980 | 2126 | 52892 | 24640 |
| Average Total Training Hours | 12.20 | 12.15 | 14.90 | 14.65 |
| Training Cost (NTD) | $9,603,362 | $3,414,172 | $84,939,972 | $39,569,707 |

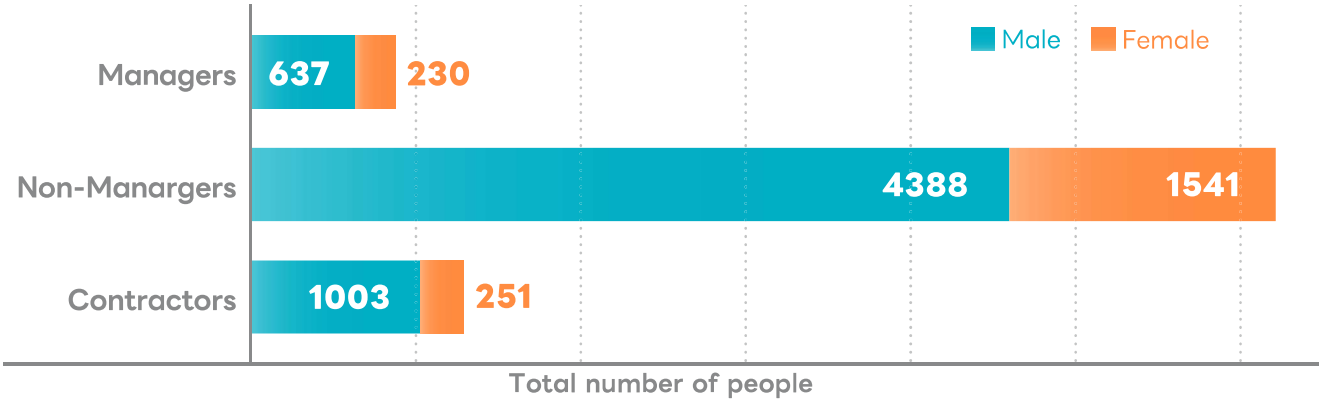
[35] Training hours statistics exclude external training programs and training independently arranged by individual departments.

TWC has established a comprehensive occupational safety and health education and training system to ensure both employees and non-employee workers possess essential safety knowledge and skills. The training curriculum encompasses general safety education as well as specialized training targeted at specific occupational hazards and dangerous situations.

Furthermore, to address particular occupational hazards, the company provides specialized safety training for high-risk operations. This includes training for specific high-pressure gas equipment operation, forklift operation, occupational safety and health education for personnel handling or using hazardous chemicals, and training for hazardous (organic, specialized, lead, tetraalkyl lead) operation supervisors. Additionally, mental health-related courses are conducted, such as the "Workplace Bullying Prevention and Handling" course. In 2025, all TWC employees completed the online workplace bullying prevention courses via the e-learning platform for civil servants, totalling 5,678 attendances. Moreover, professional lawyers delivered 12 in-person educational training sessions, attended by a total of 743 individuals, thereby fortifying the protection of employees' physical and mental well-being.

Statistics for occupational safety and health training programs in 2025 indicate a total of 8,050 attendances throughout the year, with a total investment of NTD 3,554,303. The average training hours per capita for official employees (both management and non-management) stood at approximately 5 hours, significantly higher than the approximately 3 hours for contractors. Moreover, there was no notable disparity across genders, underscoring the company's substantial emphasis on and investment in employee safety education.

### ▼ TWC 2025 Occupational Safety and Health Educational Training Hours




## 5.2.6 Diversity, Inclusion, and Labor/Management Relations

TWC adheres to domestic regulations and gender equality policies, which are formulated in alignment with the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and national gender equality laws. These policies are executed through a combination of institutional frameworks and education. We advance a diverse and inclusive employment environment through concrete actions, guaranteeing equitable development opportunities across all genders, age groups, and ethnicities. A "Gender Equality Working Group," consisting of both internal and external members, is established within the company to routinely review gender ratios, complaint cases, and related promotional measures, while continuously tracking metrics such as the proportion of female employees and managers. Furthermore,

all committees maintain a minimum of one-third representation for any single gender to ensure diverse perspectives in the decision-making process.

In practice, TWC actively guarantees employment for disadvantaged groups by legally hiring indigenous peoples and persons with disabilities, and continuously monitoring their employment status and workplace support measures. In 2025, the company employed 74 indigenous staff (accounting for 1.3%) and 175 employees with disabilities (accounting for 3.0%), reflecting a stable overall headcount. To address short-term shortfalls resulting from changes in disability qualification status, the company has reinforced internal tracking and reminder mechanisms to ensure regulatory compliance. Over the past three years, the number of minority or disadvantaged group members has remained stable, totalling 249 individuals in 2025.

- **Key Diversity and Inclusion Measures include:**

**Establishing a Gender Equality Working Group that conducts bi-annual reviews of pertinent issues.**

**Ensuring a minimum one-third representation of any single gender on all committees.**

**Legally employing indigenous peoples and persons with disabilities.**

**Continuously tracking the employment status of disadvantaged groups and the implementation of institutional support.**

**Setting up a dedicated hotline and complaint channel for sexual harassment prevention.**

In 2025, TWC received a total of 3 sexual harassment complaints, all of which were investigated and reviewed according to regulations. Two of these cases were substantiated, and appropriate disciplinary actions have been carried out. Concurrently, TWC continues to promote gender mainstreaming educational training. In 2025, 31 classes were conducted with 1,932 participants (38.61% female), accumulating 4,618 training hours and elevating employees' awareness and sensitivity toward gender issues.

On the other hand, for all employees, TWC cultivates stable, trust-based labor/management relations through institutionalized communication and legal compliance, ensuring that employee rights are protected amidst operational changes. The existing enterprise union, labor-management meetings, and labor director systems serve as crucial platforms for communication and negotiation. Furthermore, the collective agreement, re-signed on February 17, 2025, guarantees the rights of all employees with a 100% coverage rate, demonstrating the comprehensiveness of institutional protection.

Because significant operational changes and employment contract terminations can impact employee rights, TWC conducts communication and advance notice procedures prior to implementation, in accordance with relevant laws and internal guidelines. Employees are provided a notice period ranging from 10 to 30 days, depending on their tenure, ensuring sufficient time to adapt. In addition, the company has established diverse grievance and communication channels, including dedicated phone lines, email, and a grievance committee to ensure employee feedback is promptly reflected and addressed, thereby mitigating potential labor disputes.

- **Key Labor/Management Relations Mechanisms:**

**Collective agreement safeguarding all labor employees (100% coverage rate)**

**Labor-management meetings and union negotiation mechanisms**

**Clear advance notice period system (10–30 days)**

**Dedicated grievance hotline and processing mechanisms**

To assist employees in resolving difficulties, safeguarding their lawful rights, and fostering unity and harmony, TWC has specifically formulated the "Guidelines for Handling Employee Grievance Cases." In accordance with these regulations, an "Employee Grievance Case Handling Committee" and an "Employee Grievance Case Handling Task Force" have been established. These bodies provide accessible channels for employees who object to the outcomes of disciplinary appeals or whose lawful rights are impacted by inadequacies in TWC's current systems, regulations, or administrative measures. This ensures employee rights while establishing a transparent and traceable management process. Internally, the company maintains the Employee Grievance Case Handling Committee and Task Force, with joint participation from both labor and management representatives[36]. In 2025, one grievance case was received and processed within 30 days, complying with internal timeline standards. Additionally, other communication mechanisms are in place, such as an anti-corruption mailbox, dedicated phone lines, and email. An employee suggestion system has also been instituted, with annual suggestion review meetings convened to continuously gather recommendations for improvement.

# 5.3 Safety and Responsibility

Safety is a critical foundation of our operations; a good quality work environment not only mitigates occupational safety risks but also elevates corporate reputation. However, if construction or operational processes are not properly managed, accidents such as occupational injuries or chemical leaks may occur, impacting the environment and human health. Centered on institutionalized management and data monitoring, TWC has built a comprehensive occupational safety and responsibility system encompassing both employees and non-employee workers. Through the implementation of international standards, risk prevention mechanisms, and continuous improvement processes, we ensure operational safety and regulatory compliance while minimizing potential impacts on personnel and the environment.

## 5.3.1 Occupational Safety

With "zero major occupational accidents" as TWC’ s core objective, we has formulated five principles for its occupational safety and health policy, demonstrating a profound emphasis on employee health and safety:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| **Regulatory Compliance** | **Proactive Prevention** | **Full Participation** | **Continually Improve** | **Friendly Environment** |
| **Strictly adhere to safety and health regulations to elevate corporate image.** | **Persistently eliminate hazards to lower safety and health risks.** | **Consult, communicate, and convey information to foster recognition of individual responsibilities.** | **Continually improve to enhance OH&S performance and ensure sustainable operations.** | **Provide a safe and healthy workplace to prevent injuries and diseases.** |

[36] A total of 11 committee members are appointed at the Headquarters and its subordinate units. Among them, 6 members are designated by heads of departments (units), while 5 members are nominated by the TWC Labor Union (including its branches). The proportion of members of any one gender must account for at least one-third of the total committee membership.

In alignment with these principles, TWC proactively fortifies various safety and health management mechanisms, devises comprehensive Standard Operating Procedures (SOPs) and emergency response drills, and is dedicated to mitigating associated risks and impacts. Because TWC's operations and its contractors' activities may entail on-site operational risks, the occupational safety system is designed to cover both the company and contractors to reduce negative impacts. Concurrently, institutionalized management and educational training are employed to elevate the overall safety culture. Short-term, medium and long-term goals have been set to guide the company's continuous advancement and improvement:

| 2025 Targets | 2026 Targets |
|---|---|
| • Maintain zero employee fatalities or severe injuries caused by occupational accidents; strengthen the implementation of occupational safety and health management matters and plans for contractor laborers<br>• Achieve an over 70% holding rate of Taiwan Occupational Safety Cards among the company's on-site personnel performing engineering duties. | • trictly adhere to safety and health regulations and execute safety and health systems; continuously improve operational systems to maintain zero annual major occupational accidents for employees and contractors.<br>• Achieve an over 80% holding rate of Taiwan Occupational Safety Cards among the company's on-site personnel performing engineering duties. |

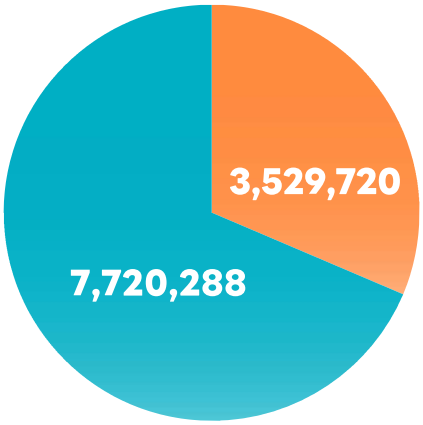
In terms of practical actions, TWC has fully implemented an occupational health and safety management system, establishing and promoting both the international Occupational Health and Safety Management System (ISO 45001:2018) and the Taiwan Occupational Safety and Health Management System (TOSHMS, compliant with CNS 45001:2018). As of the end of 2025, the Headquarters and its 13 Branches and 3 Region Engineering Offices have all achieved dual certification for ISO 45001 and TOSHMS. This covers all permanent employees, contract personnel, student workers, and non-employee workers (contractors, outsourced personnel, dispatched workers, and subcontractors)[39] . For non-routine, short-term access contractors, such as equipment maintenance personnel, signing a "Safety Commitment," undergoing basic educational training, and full-process supervision by the on-site monitoring unit are still required to ensure safe operations. The system's operational modalities include:

- **Conducting annual internal audits and external verifications to ensure all sites continuously comply with standard requirements.**
- **Implementing risk assessment systems, incident reporting procedures, health service plans, and performance evaluation indicator tracking.**
- **Implementing risk assessment systems, incident reporting procedures, health service plans, and performance evaluation indicator tracking.**
- **Requiring all workers to undergo occupational safety educational training and participate in annual health checkups (including checkups for specific operations).**

[39] Differences in occupational health and safety management system coverage: all regular employees (including Headquarters and regional offices), contract-based personnel, and interns are fully included within the scope of ISO 45001 and CNS 45001 certification. Contractors and outsourced personnel (e.g., cleaning, security, and construction) are managed through contract administration and on-site audits. Dispatched personnel and subcontractors are required to particip

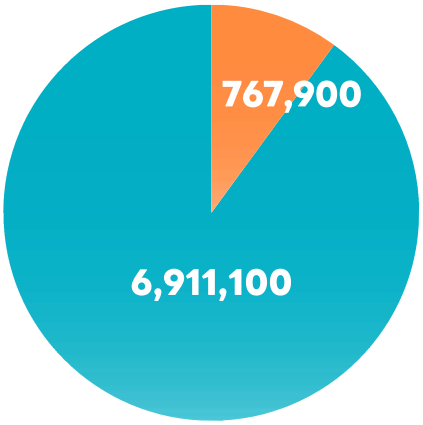
In 2025, the total number of hours worked by all TWC employees was 11,250,008 hours, showing no significant variance compared to 2024 (11,240,712 hours) and 2023 (11,375,360 hours). There were zero fatalities and occupational injury cases[40], sustaining the excellent record of zero occupational injuries established in 2024.

### ▼ TWC Total Hours Worked by Employees in 2025




Total Hours Worked by Female Employees (hours)
Total Hours Worked by Male Employees (hours)

### ▼ TWC Total Hours Worked by Non-Employees in 2025




Total Hours Worked by Female Employees (hours)
Total Hours Worked by Male Employees (hours)

For non-employees[41] , the total number of hours worked was 7,679,000, displaying a gradual upward trend compared to 2024 (7,453,000 hours) and 2023 (6,461,417 hours). Additionally, there was a total of three recordable occupational injuries, all involving males (1 caught-in/between, 2 falls), resulting in a disabling injury frequency rate[42] of 0.39, with zero fatalities or major occupational injuries. Compared to 2024 (total of 6 occupational injuries, disabling injury frequency rate of 0.8) and 2023 (total of 3 occupational injuries, disabling injury frequency rate of 0.46), there is an overall downward trend, indicating improvements in occupational safety at TWC.

TWC adheres to the provisions of the Labor Standards Act and explicitly outlines regulations concerning working hours, rest periods, and leave in the company's "Work Rules." If there is a necessity for employees to work beyond normal working hours, extensions are implemented only with the consent of the union and the employees themselves. Subsequently, employees may apply for overtime pay or compensatory time off in accordance with the law, ensuring all labor conditions comply with the relevant stipulations of the Labor Standards Act. In 2025, there were no labor inspection cases, and all labor conditions met regulatory requirements.

[40] TWC identifies occupational hazards that may lead to work-related illnesses through risk assessments, workplace environment monitoring, and health outcome analysis, and conducts regular reviews to track changes. Based on these assessments, the primary hazards that may cause or contribute to occupational diseases include ergonomic risks and chemical exposure. In response, TWC adopts a hierarchy of controls approach, implementing measures such as hazard elimination, engineering controls, administrative management, and the use of personal protective equipment to eliminate hazards or minimize risks. This disclosure excludes incidents involving outsourced contractors occurring outside the Company' s premises, as well as short-term temporary operations, primarily due to limitations in direct workplace control and data availability.

[41] This refers to TWC' s contractors.

[42] Lost Time Injury Frequency Rate (FR) refers to the number of incidents per million working hours that result in permanent total disability, permanent partial disability, or temporary total disability (i.e., work stoppage of one day or more). 3 × 1,000,000 ÷ 7,679,000 = 0.39

## 5.3.2 Risk and Emergency Response

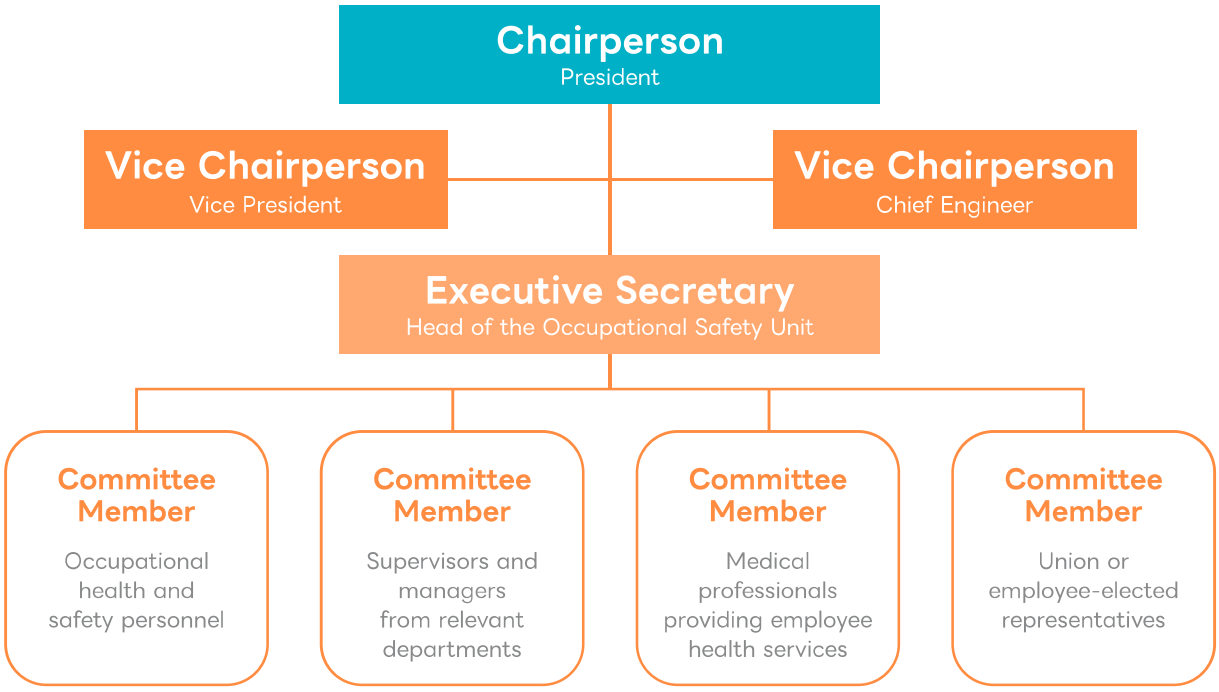
Through the Occupational Safety and Health Committee, TWC involves employees in occupational health and safety management, encouraging them to provide improvement suggestions and risk feedback. We utilize educational training and on-site briefings to disseminate safety and health information, ensuring employees grasp operational standards, risk prevention strategies, and emergency response procedures. We have appointed Class A Occupational Safety and Health Management Personnel in accordance with the Occupational Safety and Health Management Regulations. Despite constraints in human resource management, we have over-fulfilled the complete allocation across all Branches and Region Engineering Offices, highlighting the company's substantial emphasis on and investment in safety and health management.

### ▼ TWC 2025 Occupational Safety and Health Management Personnel

| Educational Training Item/Job Level | Occupational Safety and Health Operations Supervisor | Occupational Safety (Health) Manager | Occupational Safety and Health Administrator |
|---|---|---|---|
| **Required Management Personnel** | 15 | 11 | 13 |
| **Actual Management Personnel** | 17 | 13 | 14 |

TWC has established the responsibilities and authorities related to occupational safety and health management as illustrated below, flawlessly executing a tiered approach to occupational safety and health management.

### ▼ TWC Occupational Safety and Health Committee Organizational Chart



Under the agreement between TWC and the union, safety and health provisions encompass operational safety codes, hazard reporting mechanisms, industrial safety educational training, and the right to participate in incident reporting and investigations, safeguarding employees' safety rights and fostering labor/management collaboration. In addition to the President serving as the convener and ensuring labor representation is not less than one-third of the committee members, the Occupational Safety and Health Committee convenes regular meetings (quarterly) to deliberate on occupational safety issues and continually track the implementation efficacy of improvement measures. Regarding internal and external communication, we employ meetings, announcements, and other channels to gather opinions and concerns regarding occupational safety and health from employees, contractors, and external entities, responding and resolving them appropriately according to jurisdiction. Constructive suggestions from internal and external sources are genuinely evaluated and implemented; if internal documents require modification, revisions are made accordingly.

Following the TOSHMS system processes, TWC executes hazard identification and risk assessment, implementing the "Hazard Identification and Risk Assessment Procedure" and "Incident Reporting and Investigation Procedure." Once the risk level is verified, it is incorporated into improvement targets and tracked. Hazard identification and risk assessment form the bedrock of occupational accident prevention; through systematic management methodologies, we continually identify potential risks within the work environment.[43] Risk assessment outcomes are systematically fed back into the occupational safety and health management system, serving as the basis for enhancing operational procedures, fortifying protective measures, allocating resources, and reviewing performance.

The company has established reporting channels (internal website/telephone), allowing employees to instantly or anonymously report hazardous conditions or potential risks in the workplace. The company explicitly mandates that no employee shall face adverse disciplinary action or discriminatory treatment for reports made out of workplace safety concerns. Based on the standards defined in Article 28 of the Labor Inspection Act, if employees discover that the working environment may pose an immediate threat to their own or others' safety and health, they hold the right to temporarily vacate the workplace or refuse to perform unsafe operations, without being subjected to any penalties or negative repercussions.

When an unforeseen incident results in a major occupational accident, the unit where the event occurred must report it to the local competent authority or inspection agency within the legally prescribed timeframe. TWC's comprehensive reporting and investigation mechanism is as follows; through this mechanism, the root causes of accidents are thoroughly analysed to implement effective corrective measures in the future and prevent the recurrence of similar events.

[43] Personnel responsible for conducting hazard identification and risk assessments possess relevant professional training and occupational health and safety expertise, and are required to undergo training and competency enhancement once every three years in accordance with regulations to ensure the quality and consistency of assessments.

- **Step 1:**

  The individual discovering the incident reports it to their unit supervisor and the Industrial Safety Section.

- **Step 2:**

  The Industrial Safety Section of the responsible unit reports the incident to the Department of Industrial Safety and Environment Protection at Headquarters and prepares an emergency incident report outlining the cause and response measures. For major occupational incidents, relevant information is submitted for approval by the responsible Vice President and then forwarded by the Department of General Affairs via email or text message to all Directors (including Independent Directors) and Supervisors for their awareness.

- **Step 3:**

  The responsible unit submits an official Occupational Incident Investigation Report. For major occupational incidents, a Major Occupational Incident Investigation Review Committee is convened, chaired by the President, with the Vice President overseeing industrial safety serving as Deputy Convener. The Department of Industrial Safety and Environment Protection acts as the secretariat, with representatives from relevant business units and the labor union participating, and personnel from the affected unit attending to provide explanations.

- **Step 4:**

  The handling status of the incident is reported at the Board of Directors meeting of the same month.



# 06

# APPENDIX



# 6.1 GRI Index

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| GRI 2 | 2-2 | Entities included in the organization' s sustainability reporting | 1.1 Overview of TWC | 32 | |
| GRI 2 | 2-3 | Reporting period, frequency and contact point | 0 About the report, Report Publication Date, Contact Information | 4 | |
| GRI 2 | 2-4 | Restatements of information | 0 Reporting Scope and Calculation Basis | 4 | |
| GRI 2 | 2-5 | External assurance | 0 External Assurance of the Report | 4 | |
| GRI 2 | 2-6 | Activities, value chain and other business relationships | 1.1 Overview of TWC | 32 | |
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| GRI 2 | 2-8 | Workers who are not employees | 5.2 Engaging with Employees | 175 | |
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| GRI 2 | 2-12 | Role of the highest governance body in overseeing the management of impacts | 3.1 TWC Sustainable Development | 105 | |
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| GRI 2 | 2-15 | Conflicts of interest | 2.1 TWC Governance | 74 | |
| GRI 2 | 2-16 | Communication of critical concerns | 3.1 TWC Sustainable Development | 111 | |
| GRI 2 | 2-17 | Collective knowledge of the highest governance body | 2.1 TWC Governance | 72 | |
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| GRI 2 | 2-21 | Annual total compensation ratio | 5.2.2 Compensation and Retirement Benefit System | 179 | |
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| GRI 2 | 2-23 | Policy commitments | 2.3 Risk management 3.1 TWC Sustainable Development 5.2 Engaging with Employees | 96, 106, 175 | |
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| GRI 2 | 2-29 | Approach to stakeholder engagement | 0 Stakeholder Engagement | 27 | |
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| GRI 3 | 3-2 | List of material topics | 0 Materiality Analysis | 23 | |
| GRI 3 | 3-3 | Management of material topics: Water Supply Management | 1.2 TWC Water Resources Management | 41 | |
| GRI 3 | 3-3 | Management of material topics: Drinking Water Quality | 1.2 TWC Water Resources Management | 44 | |
| GRI 3 | 3-3 | Management of material topics: End-Use Efficiency | 1.2 TWC Water Resources Management | 52 | |
| GRI 3 | 3-3 | Management of material topics: Customer Privacy | 1.3 Our operation and service | 53 | |
| GRI 3 | 3-3 | Management of material topics: Information and Cybersecurity | 1.3 Our operation and service | 58 | |
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| GRI 3 | 3-3 | Management of material topics: Operational Performance and Risk Management | 2.2 Operation performance and outlook 2.3 Risk management | 96 | |
| GRI 3 | 3-3 | Management of material topics: Water Affordability & Access | 2.2 Operation performance and outlook | 84 | |
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| GRI 3 | 3-3 | Management of material topics: Distribution Network Management and Climate Change Resiliency | 1.2 TWC Water Resources Management 3.1 TWC Sustainable Development | 42, 120 | |
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| GRI 3 | 3-3 | Management of material topics: Customer Relationship | 1.3 Our operation and service | 54 | |
| GRI 3 | 3-3 | Management of material topics: Watershed Conservation and Biodiversity | 3.3 Nature risk and action | 132 | |
| GRI 3 | 3-3 | Management of material topics: Corporate Governance | 2.1 TWC Governance | 42 | |
| GRI 101 | 101-1 | Policies to halt and reverse biodiversity loss | - | - | Detailed statistics are not available at present. |
| GRI 101 | 101-2 | Management of biodiversity impacts | 3.3 Nature risk and action | 132 | |
| GRI 101 | 101-4 | Identification of biodiversity impacts | 3.3 Nature risk and action | 139 | |
| GRI 101 | 101-5 | Locations with biodiversity impacts | 3.3 Nature risk and action | 135 | |
| GRI 101 | 101-6 | Direct drivers of biodiversity loss | 3.3 Nature risk and action | 139 | |
| GRI 101 | 101-7 | Changes to the state of biodiversity | - | - | Detailed statistics are not available at present. |

| GRI | Index Num. | Disclosure Metric | Corresponding Section | Page | Remarks |
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| GRI 201 | 201-1 | Direct economic value generated and distributed | 2.2 Operation performance and outlook | 80 | |
| GRI 201 | 201-2 | Financial implications and other risks and opportunities due to climate change | 2.2 Operation performance and outlook 3.2 Net-zero governance and climate risk 3.3 Nature risk and action | 83, 123, 146 | |
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| GRI 205 | 205-2 | Communication and training about anticorruption policies and procedures | 2.1 TWC Governance | 74 | |
| GRI 205 | 205-3 | Confirmed incidents of corruption and actions taken | 2.1 TWC Governance | 75 | |
| GRI 207 | 207-1 | Approach to tax | 2.2 Operation performance and outlook | 80 | |
| GRI 207 | 207-2 | Tax governance, control, and risk management | 2.2 Operation performance and outlook | 80 | |
| GRI 207 | 207-3 | Stakeholder engagement and management of concerns related to tax | 2.2 Operation performance and outlook | 80 | |
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| GRI 302 | 302-3 | Energy intensity | 4.1 Energy and GHG emissions | 150 | |
| GRI 302 | 302-4 | Reduction of energy consumption | 4.1 Energy and GHG emissions | 153 | |
| GRI 302 | 302-5 | Reductions in energy requirements of products and services | 4.1 Energy and GHG emissions | 150 | |
| GRI 303 | 303-1 | Interactions with water as a shared resource | 1.2 TWC Water Resources Management | 42 | |
| GRI 303 | 303-2 | Management of water discharge-related impacts | 4.2 Waste, and water effluents, and air pollution | 160 | |
| GRI 303 | 303-3 | Water withdrawal | 1.2 TWC Water Resources Management | 42 | |
| GRI 305 | 305-1 | Direct (Scope 1) GHG emissions | 4.1 Energy and GHG emissions | 152 | |
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| GRI 305 | 305-4 | GHG emissions intensity | 4.1 Energy and GHG emissions | 152 | |
| GRI 305 | 305-5 | Reduction of GHG emissions | 4.1 Energy and GHG emissions | 153 | |
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| GRI 305 | 305-7 | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions | 4.2 Waste, and water effluents, and air pollution | 160 | |
| GRI 306 | 306-1 | Waste generation and significant waste related impacts | 4.2 Waste, and water effluents, and air pollution | 162 | |

| GRI | Index Num. | Disclosure Metric | Corresponding Section | Page | Remarks |
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| GRI 306 | 306-3 | Waste generated | 4.2 Waste, and water effluents, and air pollution | 160 | |
| GRI 306 | 306-4 | Waste diverted from disposal | 4.2 Waste, and water effluents, and air pollution | 163 | |
| GRI 306 | 306-5 | Waste directed to disposal | 4.2 Waste, and water effluents, and air pollution | 163 | |
| GRI 401 | 401-1 | New employee hires and employee turnover | 5.2 Engaging with Employees | 177 | |
| GRI 401 | 401-2 | Benefits provided to full-time employees that are not provided to temporary or part- time employees | 5.2 Engaging with Employees | 181 | |
| GRI 401 | 401-3 | Parental leave | 5.2 Engaging with Employees | 182 | |
| GRI 402 | 402-1 | Minimum notice periods regarding operational changes | 5.2 Engaging with Employees | 186 | |
| GRI 403 | 403-1 | Occupational health and safety management system | 5.3 Safety and Responsibility | 188 | |
| GRI 403 | 403-2 | Hazard identification, risk assessment, and incident investigation | 5.3 Safety and Responsibility | 188 | |
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| GRI 403 | 403-5 | Worker training on occupational health and safety | 5.2 Engaging with Employees | 182 | |
| GRI 403 | 403-6 | Promotion of worker health | 5.2 Engaging with Employees | 182 | |
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| GRI 403 | 403-8 | Workers covered by an occupational health and safety management system | 5.3 Safety and Responsibility | 191 | |
| GRI 403 | 403-9 | Work-related injuries | 5.3 Safety and Responsibility | 190 | |
| GRI 403 | 403-10 | Work-related ill health | 5.3 Safety and Responsibility | 190 | |
| GRI 405 | 405-1 | Diversity of governance bodies and employees | 5.2 Engaging with Employees | 186 | |
| GRI 405 | 405-2 | Ratio of basic salary and remuneration of women to men | 5.2 Engaging with Employees | 180 | |
| GRI 416 | 416-1 | Assessment of the health and safety impacts of product and service categories | 1.2 TWC Water Resources Management | 42 | |
| GRI 416 | 416-2 | Incidents of non-compliance concerning the health and safety impacts of products and services | 1.2 TWC Water Resources Management | 42 | |
| GRI 418 | 418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data | 1.3 Our operation and service | 53 | |

# 6.2 SASB Index

| Topic | Accounting metric | SASB Code | Corresponding Section | Page | Remarks |
|---|---|---|---|---|---|
| **Activity metrics** | Different Customer categories:<br>(1) Residential and Commercial: 7,847,289<br>(2) Industrial: 39,364<br>(3) Others: 131,148 | IF-WU-000.A | 1.3 Our operation and service | 54 | |
| | Total water intake by sources (%) | IF-WU-000.B | 1.2 TWC Water Resources Management | 43 | |
| | Total water delivered to:<br>(1) Residential and Commercial : 1,834,043<br>(2) Industrial : 622,279<br>(3) Other : 148,525<br>(thousand cubic meters) | IF-WU-000.C | 1.3 Our operation and service | 54 | |
| | Average volume of wastewater treated per day | IF-WU-000.D | 4.2 Waste, and water effluents, and air pollution | - | Wastewater treatment is managed by the National Land Management Agency and local governments |
| | Length of<br>(1) water supply pipeline<br>(2) sewer pipe | IF-WU-000.E | 1.2 TWC Water Resources Management | 52 | (2) Wastewater treatment is managed by the National Land Management Agency and local governments. |
| **Energy Management** | (1) Total energy consumption (GJ): 3,720,626.74<br>(2) percentage grid electricity: 99.83%<br>(3) percentage renewable: 0.71% | IF-WU-130a.1 | 4.1 Energy and GHG emissions | 152 | |
| **Distribution Network Efficiency** | Water main replacement rate: 0.69% | IF-WU-140a.1 | 1.2 TWC Water Resources Management | 52 | |
| | Volume of non-revenue water losses | IF-WU-140a.2 | 1.1 Overview of TWC | 36 | |
| **Effluent Quality Management** | Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations | IF-WU-140b.1 | 4.2 Waste, and water effluents, and air pollution | 164 | |
| | Discussion of strategies to manage effluents of emerging concern | IF-WU-140b.2 | 4.2 Waste, and water effluents, and air pollution | 164 | |
| **Water Affordability & Access** | Average retail water rate for<br>(1) residential: 223 NTD/ month/household<br>(2) commercial<br>(3) industrial customers | IF-WU-240a.1 | 2.2 Operation performance and outlook | 84 | Except for general household users, no data is available. |
| | (1) Number of residential customers water disconnections for non-payment<br>(2) percentage reconnected within 30 days | IF-WU-240a.3 | 2.2 Operation performance and outlook | - | No data available. |
| | Discussion of impact of external factors on customer affordability of water, including the economic conditions of the service territory | IF-WU-240a.4 | 2.2 Operation performance and outlook | 80 | |

| Topic | Accounting metric | SASB Code | Corresponding Section | Page | Remarks |
|---|---|---|---|---|---|
| **Drinking Water Quality** | Number of incidents of non-compliance associated with drinking water quality standards and regulation: 4 cases | IF-WU-250a.1 | 2.1 TWC Governance | 77 | |
| | Discussion of strategies to manage drinking water contaminants of emerging concern | IF-WU-250a.2 | 1.2 TWC Water Resources Management | 44 | |
| **End-Use Efficiency** | Percentage of water utility revenue from rate structures designed to promote conservation and revenue resilience | IF-WU-420a.1 | 1.2 TWC Water Resources Management | 41 | TWC does not offer water conservation incentives. |
| | Customer water savings from efficiency measures, by market | IF-WU-420a.2 | 1.2 TWC Water Resources Management | 41 | TWC does not have quantified data on water savings. |
| **Water Supply Resilience** | Total water sourced from regions with High or Extremely High Baseline Water Stress; percentage purchased from a third party | IF-WU-440a.1 | 1.2 TWC Water Resources Management | 43 | No areas in Taiwan are classified as facing high or extremely high baseline water stress. |
| | Volume of recycled water delivered to customers: none | IF-WU-440a.2 | 1.2 TWC Water Resources Management | 42 | TWC currently has no direct role in the reclaimed water supply chain. |
| | Discussion of strategies to manage risks associated with the quality and availability of water resources | IF-WU-440a.3 | 1.2 TWC Water Resources Management | 44 | |
| **Network Resiliency & Impacts of Climate Change** | Wastewater treatment capacity located in 100-year-frequency flood zones | IF-WU-450a.1 | – | - | TWC is not responsible for wastewater treatment or sanitary sewer overflow, which fall under the authority of the National Land Management Agency and local governments, such as the Public Works Department of Taipei City |
| | (1) Number<br>(2) volume of sanitary sewer overflows (SSO)<br>(3) percentage of volume recovered | IF-WU-450a.2 | – | - | |
| | (1) Number of unplanned service disruptions: 15,927<br>(2) customers affected, each by duration category: 16,383,823 | IF-WU-450a.3 | 1.3 Our operation and service | 53 | |
| | Description of efforts to identify and manage risks and opportunities related to the impact of climate change on distribution and wastewater infrastructure | IF-WU-450a.4 | 1.2 TWC Water Resources Management | 45 | |

# 6.3 TCFD Index

| TCFD Topic | Disclosure Metric | Corresponding Section | Page | Remarks |
|---|---|---|---|---|
| Governance | Describe the board's oversight of climate-related risks and opportunities. | 3.2.1 Climate Governance and Strategy | 118 | |
| | Describe management's role in assessing and managing climate related risks and opportunities. | 3.2.1 Climate Governance and Strategy | 118 | |
| Strategy | Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. | 3.2.2 Climate Risk and Management | 120 | |
| | Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning. | 3.2.2 Climate Risk and Management 3.2.1 Climate Governance and Strategy 2.2.2 Operational Financial Impacts from Natural Disasters | 118, 120, 83 | |
| | Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios | 3.2.2 Climate Risk and Management | 120 | |
| Risk Management | Describe the organization's processes for identifying and assessing climate related risks. | 3.2.2 Climate Risk and Management | 120 | |
| | Describe the organization's processes for managing climate-related risks. | 3.2.2 Climate Risk and Management | 120 | |
| | Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. | 3.2.2 Climate Risk and Management | 120 | |
| Metrics and Targets | Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. | 3.2.3 Climate Actions, Indicators, and Targets | 126 | |
| | Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. | 4.1 Energy and GHG emissions (Scope1, 2) | 152 | |
| | Describe the targets used by the organization to manage climaterelated risks and opportunities and performance against targets. | 3.2.3 Climate Actions, Indicators, and Targets | 126 | |

# 6.4 TNFD Index

| Metric No. | Disclosure Metric | Corresponding Section | Page | Remarks |
|---|---|---|---|---|
| C1.0 | Total spatial footprint | 3.3 Nature Risks and Positive Action | 132 | |
| C1.1 | Extent of land/freshwater/ocean use change | 3.3 Nature Risks and Positive Action | 134 | |
| C2.0 | Pollutants released to soil by type | Not applicable to TWC | - | |
| C2.1 | Wastewater discharged | 1.2 TWC Water Resource Management | 42 | |
| C2.2 | Waste generation and disposal | 4.2 Waste, Wastewater Discharge and Air Pollution Management | 160 | |
| C2.3 | Plastic pollution | Not applicable to TWC | - | |
| C2.4 | Non-GHG air pollutants | Not tracked | - | |
| C3.0 | Water withdrawal and consumption from areas of water stress | All regions in Taiwan are non-water-stressed areas | 43 | |
| C3.1 | Volume of high-risk natural commodities sourced from land/ocean/freshwater | Not applicable to TWC | - | |

| Metric No. | Disclosure Metric | Corresponding Section | Page | Remarks |
|---|---|---|---|---|
| C4.0 | Placeholder metric: Measures to prevent unintentional introduction of invasive alien species (IAS) | 3.3 Nature Risks and Positive Action | 139 | |
| C5.0 | Placeholder metric: State of ecosystems | 3.3 Nature Risks and Positive Action | 142 | |
| C5.0 | Placeholder metric: Extinction risk of species | Not tracked | - | |
| WU.C2.0 | Water pollution | 1.2 TWC Water Resource Management | 42 | |
| WU.C2.1 | Sanitary sewer overflow events and recovery | Not applicable to TWC | - | |
| WU.C3.0 | Volume of water reduced, reused, or recycled | Not applicable to TWC | - | |
| WU.C3.1 | Mitigated water loss | 1.2 TWC Water Resource Management | 50 | |

# 6.5 Basis for Voluntary Calculation of Greenhouse Gas Emissions in this Report

## TWC Greenhouse Gas Emission Calculation

| Year | 2025 |
|---|---|
| **Purchased Electricity Consumption (kWh)** | **1,024,574,320** |
| Electricity Heat Value Conversion (kWh → GJ) | 0.0036 |
| Heat Value Coefficient (kcal → KJ) | 4.1868 |
| **Heat Value of Purchased Electricity (GJ)** | **3,688,467.55** |
| **Gasoline Consumption (Liter)** | **903,270** |
| Heat Value Coefficient (L → kcal) | 7,586 |
| **Heat Value of Gasoline Consumption (GJ)** | **28,688.82** |
| **Diesel Consumption (Liter)** | **95,980.00** |
| Heat Value Coefficient (L → kcal) | 8,636 |
| **Heat Value of Diesel Consumption (GJ)** | **3,470.37** |
| **Total Energy Consumption Heat Value (GJ)** | **3,720,626.74** |
| **Annual Water Supply ($m^3$)** | **3,240,759,141** |
| **Annual Energy Intensity ($GJ/m^3$)** | **0.001148** |
| **Scope 1 GHG Emissions (kg $CO_2e$)** | **2,330,157.38** |
| Gasoline Emission Factor $CO_2$ | 2.2010417906 |
| Gasoline Emission Factor $CH_4$ | 0.0222327454 |
| Gasoline Emission Factor $N_2O$ | 0.0673334574 |
| Diesel Emission Factor $CO_2$ | 2.6792488757 |
| Diesel Emission Factor $CH_4$ | 0.0039483668 |
| Diesel Emission Factor $N_2O$ | 0.0373684712 |
| **Scope 2 GHG Emissions (kg $CO_2e$)** | **485,648,228** |
| Electricity Emission Factor | 0.474 |
| **Scope 1 + Scope 2 GHG Emissions (kg $CO_2e$)** | **487,978,385** |
| **Annual GHG Emission Intensity (kg $CO_2e/m^3$)** | **0.151** |

## Calculation of Energy Saving and Carbon Reduction Performance

| Item | Calculation |
|---|---|
| **Power Saving** | Estimated carbon reduction = Estimated water supply (thousand tons) × 1,000 × (2025 estimated unit electricity consumption - December 2025 actual unit electricity consumption) × Emission factor<br>3,240,759 × 1,000 × (0.3046 - 0.3134) × 0.474 = 13,517,854 kg $CO_2e$ |
| **Energy-Efficient Green Building** | Projects completed in 2024 (1,837 $m^2$), Jibei project (426 $m^2$), Qimei project (704 $m^2$), Zengwen Phase II Management Building (2,684 $m^2$), District 2 Linkou Office (1,667 $m^2$), Pingtung District Chaozhou Office (1,824 $m^2$):<br>(1,837 × 12/12 + 426 × 10/12 + 704 × 10/12 + 2,684 × 7/12 + 1,667 × 0/12 + 1,824 × 1/12) × 3.81 / 1,000 = 17.13 metric tons $CO_2e$ |
| **Installation of Solar PV Equipment** | Carbon reduction = Total Solar PV power generation (116 sites) × Emission factor<br>99,515,145 × 0.474 = 47,170,178.73 kg $CO_2e$ (47,170 metric tons $CO_2e$) |
| **Small Hydropower Generation Installation** | Carbon reduction = Total Small Hydropower generation × Emission factor<br>[424,532 kWh (Lijia) + 4,191,224 kWh (Shalu) + 4,450,200 kWh (Hushan)] × 0.474 = 4,297,263 kg $CO_2e$ |
| **On-site Renewable Energy Generation System** | Estimated carbon reduction = Self-consumed renewable energy generation × Emission factor<br>1,769,040 × 0.474 = 838,525 kg $CO_2e$ |
| **Promoting Green Office (Replacement with energy-efficient air conditioners)** | Continuous energy savings of 924 kWh × 692 units, estimated carbon reduction by the end of December 2025:<br>924 / 12 × (692 × 12 + 94 × 8 + 60 × 7 + 18 × 6 + 27 × 5 + 11 × 4 + 17 × 3 + 13 × 2 + 5 × 1) × 0.474 = 359,323 kg $CO_2e$ |
| **Adopting Low-Carbon Transportation** | Cars: 124 units from previous years: continuous fuel savings of 755 liters × 124 units; Motorcycles: 128 units from previous years: continuous fuel savings of 87.79 liters × 128 units; estimated carbon reduction by December 2025:<br>2.2631 × (755 / 12 × (124 × 12 + 19 × 8 + 19 × 7 + 7 × 6 + 2 × 5 + 6 × 4 + 1 × 3 + 2 × 2) + 87.79 / 12 × (128× 12 + 49 × 8 + 3 × 7 + 10 × 5)) = 297,366 kg $CO_2e$ |
| **Strengthening IT Equipment Management** | 1.Electronic video conferences:<br>Number of video conferences × at least 2 people video conferencing on-site × 2 × 5.5 kg.<br>2.Virtual hosts:<br>[Number of hosted virtual machines (A) × 650W - Number of physical servers (B) × 1,500W] × (24 hours/day × 365 days × 0.474 kg/kWh (Emission factor) ÷ 1,000).<br>Note: Physical servers consume more power as they host multiple virtual machines.<br>3.Phasing out outdated equipment:<br>(Servers × 300W + Personal computers × 50W) × 24 hours × 365 days × Emission factor ÷ 1,000.<br>Note: The energy savings (consumption) for servers and personal computers are 300W and 50W, respectively. |

| Item | Calculation |
|---|---|
| **Electronic Documents and Paperless Operations** | Number of applications × 3 (sheets of paper saved per application) × 7.6 (g $CO_2e$/sheet)<br>Total electronic documents: 1,208,105 applications; Total electronic forms: 11,615 applications<br>(1,208,105 + 11,615) × 3 × 7.6 / 1,000 = 27,809.6 kg $CO_2e$<br>Note: The carbon footprint data for one sheet of paper is 7.6 grams. |
| **Paperless Water Bills (e-Bill Registration)** | Paper reduction: 1,685,869 applications × 6 billing periods = 10,115,214 sheets of paper<br>Carbon reduction: 10,115,214 sheets of paper × 7.6g / 1,000 = 76,876 kg / 1,000 = 76.88 metric tons $CO_2e$ |
| **Paperless Counter Services** | Paper reduction: 283,561 applications × 2 sheets = 567,122 sheets of paper<br>Cumulative carbon reduction: 283,561 applications × 2 sheets × 7.6 / 1,000 = 4,310 kg $CO_2e$ |
| **Reducing Water Leakage** | • Cumulative reduction in water supply by December 2025 = Cumulative water supply by December 2025 (3,240,759,141 $m^3$) × (2005 Water Leakage Rate 23.66% - December 2025 Water Leakage Rate 11.52%) = 393,428,160 $m^3$<br>• 2025 unit electricity consumption for water supply = 2025 unit electricity consumption (1,015,750,540 kWh) / Cumulative water supply by December 2025 (3,240,759,141 $m^3$) = 0.3134 kWh/$m^3$<br>• 2025 carbon emissions per cubic meter of water produced = 2025 unit electricity consumption for water supply (0.3134 kWh/$m^3$) × 2025 national emission factor (0.474 kg/kWh) = 0.1486 kg $CO_2e/m^3$<br>• Carbon reduction in December 2025 = Cumulative reduction in water supply by December 2025 (393,428,160 $m^3$) × Carbon emissions per cubic meter of water produced (0.1486 kg $CO_2e/m^3$) = 58,463,425 kg $CO_2e$. |
| **Sludge Resource Recovery and Reuse** | Estimated carbon reduction = Annual reduction in landfill waste × Carbon footprint per kilogram of landfill<br>32,000 × 0.3 = 9,600KgCO2e |
| **Tree Planting for Carbon Sequestration** | Estimated carbon reduction = Afforested area × Carbon absorption per hectare (National Greenhouse Gas Inventory Report by the Ministry of Environment)<br>2,744,133KgCO2e=(283.69 × 9673) |
| **AI-enabled Precision Chemical Dosing** | • Annual electricity consumption of water washing motors reduced from 8,046.1 kWh to 5,172.5 kWh, saving 2,873.6 kWh<br>• Annual electricity consumption of blowers reduced from 8,168.7 kWh to 5,251.3 kWh, saving 2,917.4 kWh<br>• (2873.6+2917.4) × 0.474 = 2,744KgCO2e |

# 6.6 Third-Party Assurance Statement

## Independent Assurance Statement

### Taiwan Water Corporation 2026 Sustainability Report

AFNOR GROUP was established in 1926. We are the National Standardization Body of France, a permanent council member in ISO and one of the leading certification bodies in the world. This assurance work was carried out by AFNOR ASIA LTD., a subsidiary of AFNOR GROUP. All the members of the verification team have professional backgrounds and have accepted AA1000 AS, AFAQ 26000, ISO 9001, ISO 14001, ISO 14064, ISO 45001, ISO 50001, and other sustainability-related international standard trainings. All assigned verifiers have been approved as the lead auditors or verifiers. AFNOR ASIA LTD. (hereinafter referred to as AFNOR ASIA) and Taiwan Water Corporation (hereinafter referred to as TWC) are independent entities. Except for the contents described in this independent assurance statement, AFNOR ASIA LTD. is not involved in the preparation process of the sustainability report of TWC.

### RESPONSIBILITIES

TWC is responsible for reporting its economic, environmental, and social operating activities and performance of Taiwan operating locations in sustainability report (hereinafter referred to as "the Report") in accordance with the declared sustainability reporting standards.

AFNOR ASIA is responsible for providing an independent assurance statement to TWC and its stakeholders in accordance with the described scope and method. This statement is for TWC use only and is not responsible for any other purpose.

### SCOPE AND CRITERIA

The assurance scope of the agreement between TWC and AFNOR ASIA includes:

1. The scope of assurance operation is consistent with the scope disclosed in the "Taiwan Water Corporation 2026 Sustainability Report".
2. AFNOR ASIA performs assurance operation according to the Type 1 assurance of the AA1000 assurance standard (v3), reviewing and evaluating TWC's compliance with the AA1000 AccountAbility Principles (2018).
3. The assurance operation includes reviewing and evaluating TWC's relevant processes, systems and controls and available performance information, as well as compliance with the following reporting criteria:
   - GRI Standards.

### METHODOLOGY

- The Report is reported in accordance with the GRI Standards, and the content of the Report is

reviewed for compliance with the GRI Standards for general disclosure and specific topic disclosure.

- The verification team interviewed relevant personnel to confirm the communication and response mechanism for stakeholders and the decision-making process for material topics, but did not directly contact external stakeholders.
- All documents, data and information related to the preparation of the Report were verified by the verification team through interviews with relevant personnel.
- The process of reviewing organizational outputs, collecting and managing qualitative and quantitative data disclosed in reports based on a sampling plan.
- By interviewing the responsible personnel of each group, examining and reviewing the relevant documents, materials and information, the verification team evaluated the reasonableness of the sources of supporting materials and evidence for the contents of the Report.

## CONCLUSION

◆ **AA1000 Accountability Principles**

**Inclusivity**

TWC has followed the AA1000 Stakeholder Engagement Standard to identify nine major stakeholders (shareholders, government agencies, elected representatives, general water users, industrial and commercial water users, employees, suppliers and partners, community residents and the media). The concerns, response strategies, communication methods and frequencies of each stakeholder have been disclosed in the Report, and the consultation strategy is systematic.

**Materiality**

TWC has presented its material topic assessment process in the Report, which involved a three-step identification process and the application of the Double Materiality Assessment. The 16 material topics were identified from 25 sustainability issues, and the identification process and results are presented in a quantitative matrix diagram. Overall, the organization has demonstrated concrete actions consistent with the principle of materiality.

**Responsiveness**

TWC has established annual implementation plans and performance indicators for each material topic, and has a semi-annual tracking mechanism. These plans are submitted to the Sustainable Development Committee for review and then reported to the Board of Directors, forming a comprehensive PDCA management mechanism. At the same time, through various channels such as customer service centers, websites, and reports, the company fully addresses the concerns of stakeholders.

**Impact**

TWC has conducted impact assessments for its major business activities, including: assessing nature-related impacts using the TNFD LEAP methodology, assessing climate-related financial risks using the TCFD methodology, assessing occupational safety and health impacts, and assessing environmental management impacts, demonstrating that the organization has adopted a systematic framework to achieve good impact management.

◆ **Global Reporting Initiative Sustainability Reporting Standards**

Based on the results of the review, it is confirmed that the general disclosures, specific topic disclosures, and material topics management disclosures in the Report have complied with the requirements of the GRI Standards. In the future, the organization can continue to combine other international reporting requests with cross-departmental collaboration to collect and compile management performance information from various locations to provide stakeholders with an understanding of its sustainability efforts.

## ASSURANCE OPINION

AFNOR ASIA has developed a complete sustainability reporting assurance standard based on the verification guidelines of the AA1000 Assurance Standard (v3) and the GRI Standards. Based on the sufficient evidence provided by TWC and the facts seen during on-site verification, we adhere to the principle of fairness and issue a statement on the global sustainability reporting standards followed by the organization. In our opinion, the information and data presented in the Report by TWC provides a fair and balanced representation. We believe the focuses on economic, social, and environmental indicators in TWC in 2025 are well represented.

## ASSURANCE LEVEL

In accordance with the AA1000 Assurance Standard (v3), we verified this assurance statement corresponding to a Moderate level. The scope and methods are as described in this statement.

For and on behalf of AFNOR：

AA1000
Licensed Report
000-84/V3-OVX76

Dr. August Tsai
The Director for Certification and Assessment
Jun.17.2026

Verification team: Chung Pen Chen (Lead Verifier), Hsing-Tsung Chang (Verifier), Cheng-Hao Chen (Verifier), Yu-Sheng Lin (Verifier).

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台灣自來水公司
TAIWAN WATER CORPORATION

# 2026 TWC Sustainability Report

