

Circular Water and Resource Recovery Systems Market Forecasts to 2034 – Global Analysis By Water Reclamation & Reuse Systems (Municipal Wastewater Reuse, Industrial Process Water Recycling and Agricultural Irrigation Reuse), Nutrient Recovery Systems, Energy Recovery Systems, Material Recovery Systems, Integrated Circular Resource Platforms and By Geography

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Abstracts

According to Statistics MRC, the Global Circular Water and Resource Recovery Systems Market is accounted for \$9.8 billion in 2026 and is expected to reach \$22.5 billion by 2034 growing at a CAGR of 11.0% during the forecast period. Circular water and resource recovery systems aim to reduce waste while enhancing the reuse of water, energy, and useful by-products. They transform wastewater into a valuable asset by extracting nutrients, generating biogas, and producing treated water suitable for reuse across agriculture, industrial processes, and cities. Through the use of modern treatment methods and circular economy strategies, these systems help protect the environment, preserve freshwater supplies, and decrease costs. Growing concerns about water shortages, stricter regulations, and sustainability targets are driving governments and industries to adopt these systems as essential elements of sustainable infrastructure.

According to UN Water, globally, only 11% of treated wastewater is reused, while countries such as Israel and Singapore reuse more than 85% of their wastewater, demonstrating the potential of circular water systems.

Market Dynamics:

Driver:

Rising water scarcity and demand pressure

Growing shortages of water resources are strongly accelerating the adoption of circular water and resource recovery systems. Expanding populations, urban growth, and industrial activities are increasing stress on already limited freshwater supplies. By promoting wastewater recycling and reuse, these systems reduce reliance on natural water sources. Public authorities and industries are focusing on sustainable solutions to secure future water needs. Additionally, reused water supports agricultural and industrial operations, easing pressure on primary sources. With climate change worsening droughts and water availability, the importance of efficient reuse and recovery technologies is rising rapidly across global markets.

Restraint:

High initial capital investment

A key limitation of the circular water and resource recovery systems market is the substantial initial investment needed to set up these systems. Installing advanced treatment facilities, building infrastructure, and integrating technologies require considerable financial commitment, making it difficult for smaller organizations and local authorities to adopt them. Additional expenses related to maintenance and skilled workforce further increase costs. Even though these systems offer long-term financial benefits, the high starting cost often acts as a deterrent. This issue is especially prominent in developing economies, where budget limitations and other priorities restrict investments in such sustainable solutions.

Opportunity:

Resource recovery and revenue generation

Recovering valuable materials from wastewater creates strong economic opportunities within the circular water and resource recovery systems market. These systems allow the extraction of essential nutrients such as nitrogen and phosphorus, along with energy in the form of biogas. The recovered materials can be reused or sold, providing additional income sources for operators. Many industries are realizing the benefits of

transforming waste into useful products, improving both profitability and sustainability. As recovery technologies continue to advance, their efficiency and scalability increase, making them more practical and appealing for broader use across various industries.

Threat:

Competition from conventional water treatment systems

Traditional water treatment methods present a major challenge to the growth of the circular water and resource recovery systems market. Organizations frequently prefer established systems because they are well understood, involve lower perceived risks, and are already integrated into existing infrastructure. These conventional approaches are often seen as more cost-effective initially and easier to operate. Additionally, hesitation to adopt new and unfamiliar technologies slows the shift toward circular solutions. This ongoing dependence on linear treatment systems can hinder innovation and reduce the pace at which advanced water recovery technologies are adopted worldwide.

Covid-19 Impact:

The COVID-19 outbreak affected the circular water and resource recovery systems market in both negative and positive ways. Early in the pandemic, supply chain interruptions, workforce limitations, and project delays hindered market progress. Financial resources were redirected toward healthcare needs and economic stabilization, causing delays in sustainability initiatives. Despite these challenges, the crisis emphasized the critical role of reliable water and sanitation infrastructure, boosting awareness about water reuse and hygiene practices. As a result, interest in sustainable water solutions increased. During the recovery phase, investments in circular water systems are gaining momentum to support long-term sustainability and resilience goals.

The municipal wastewater reuse segment is expected to be the largest during the forecast period

The municipal wastewater reuse segment is expected to account for the largest market share during the forecast period, mainly driven by the large amounts of wastewater generated in cities and the need for efficient water utilization. Urban areas continuously produce vast volumes of wastewater, creating opportunities for reuse after treatment. Public authorities are investing in modern facilities to recycle water for various applications, including domestic and industrial use. Increasing concerns over water

shortages and stricter environmental policies are further supporting adoption. As a result, municipal wastewater reuse remains the most prominent segment in advancing sustainable and circular water management practices worldwide.

The phosphorus recovery segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the phosphorus recovery segment is predicted to witness the highest growth rate, driven by rising awareness about limited natural resources and sustainability needs. As a critical nutrient for agricultural production, phosphorus faces supply constraints, increasing interest in alternative sources. Wastewater offers a valuable opportunity to recover this nutrient, supporting the adoption of advanced recovery technologies. Regulatory bodies are encouraging recycling efforts to lower reliance on mining and reduce environmental impact. The increasing demand for eco-friendly fertilizers and circular practices is boosting the growth of phosphorus recovery across various sectors.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by its developed infrastructure and proactive environmental policies. The region has extensively implemented advanced wastewater treatment systems and continues to invest in modernization for efficient water reuse and recovery. Strong regulatory standards push industries and municipalities toward sustainable practices. Public awareness about environmental protection and water conservation also contributes to market growth. Furthermore, the presence of key industry players and ongoing technological advancements enhances adoption. These factors collectively ensure North America maintains its leading share in the circular water systems market globally.

Region with highest CAGR:

Over the forecast period, the Asia-Pacific region is anticipated to exhibit the highest CAGR, driven by expanding urban areas, industrial development, and growing water shortages. Many countries in this region are dealing with serious issues related to water availability and contamination, which is increasing the demand for advanced reuse and recovery systems. Governments are focusing on improving wastewater infrastructure and encouraging sustainable practices. The rising population and economic activities are further boosting water consumption, supporting market expansion. Favourable

government initiatives and global partnerships are also contributing to the rapid adoption of circular water solutions.

Key players in the market

Some of the key players in Circular Water and Resource Recovery Systems Market include Veolia Environnement S.A., SUEZ SA, Xylem Inc., Ecolab Inc., Evoqua Water Technologies Corp., Pentair plc, Kemira Oyj, Kurita Water Industries Ltd., Jacobs Solutions Inc., Thermax Limited, American Water Works Company, Inc., Aquatech International, Aquarion AG, Danaher Corporation, DuPont de Nemours, Inc., Grundfos Holding A/S, Kingspan Group plc and RWL Water.

Key Developments:

In February 2026, Veolia has secured two 15-year operations and maintenance (O&M) contracts for Mumbai's upcoming Bhandup and Panjrapur Water Treatment Plants (WTPs), strengthening its presence in India's municipal water sector. The contracts mark the largest municipal water sector agreements signed by a French company in India. The combined treatment capacity of the two plants will be 2,910 million litres per day (MLD), equivalent to 2.91 million cubic metres per day.

In February 2026, Danaher Corp. agreed to acquire Masimo Corp. for \$9.9 billion in a move to strengthen its diagnostics business. Under the terms of the agreement, Danaher will acquire all the outstanding shares of Masimo for \$180 per share in cash, representing a 38.3% premium to Masimo's last closing price.

In April 2025, SUEZ and the CNRS have signed a five-year framework agreement to combine their R&D efforts and develop innovative solutions to promote sustainable resource management and new decarbonisation technologies. This framework agreement aims to pool together SUEZ's innovation capabilities and the CNRS' scientific excellence.

Water Reclamation & Reuse Systems Covered:

Municipal Wastewater Reuse

Industrial Process Water Recycling

Agricultural Irrigation Reuse

Nutrient Recovery Systems Covered:

Phosphorus Recovery

Nitrogen Recovery

Potassium and Micronutrient Recovery

Energy Recovery Systems Covered:

Biogas from Anaerobic Digestion

Waste-to-energy From Sludge

Heat Recovery from Wastewater Streams

Material Recovery Systems Covered:

Biosolids Valorization

Industrial By-product Recovery

Integrated Circular Resource Platforms Covered:

Decentralized Treatment Hubs

Smart Monitoring & Digital Optimization Platforms

Hybrid Water-energy-nutrient Recovery Plants

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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