

# Water Risk Management and Effective Water Usage

## Our Approach

Water is an essential resource for all of humankind. However, there is a concern that growing demands from population growth coupled with climate change will bring a greater risk of worldwide water shortages.

Based on our Environmental Policy, we comply with environmental laws and regulations and promote reducing our water usage and environmental impact. We are also employing water risk management practices, which includes addressing the issues of water shortages, water pollution, and flooding.

The Environmental Management Promotion Council meets every quarter to discuss NEC's water management system during which time it assesses the Company's progress toward reaching its water reduction targets and reports its findings to the executive officer in charge of the environment. When necessary, the results of activities for meeting these targets are reported to the Business Strategy Council and announced to the public.

Floods and other risks could have an adverse effect on business if they affect certain facilities. In such cases, the division overseeing the supply chain predicts the impact of these risks and formulates countermeasures. These countermeasures are reported to and discussed with the Business Strategy Council and the Board of Directors when necessary, after which the division implements and supervises their execution.

## Response to Water Risk

### ● Surveying Risks and Implementing Countermeasures

NEC evaluates and confirms how water risks such as water shortages, water pollution, and flooding caused by climate change affect the Group's production sites and supply chain.

Put specifically, the Group identifies the water risks that exist at its Japanese and International production sites based on its in-house water risk management questionnaire and the Aqueduct water risk evaluation tool provided by the World Resources Institute (WRI).

The first surveying stage of this process utilizes Aqueduct to gain an understanding of risks in three categories: physical risks related to water volume, quality, and damage from storms and floods; regulatory risks from water-related tax revisions and policies; and reputation risks stemming from ESG-related conduct.

In the second survey, we take the results from the first survey and compare them with how supervisors perceive water risks at their respective production sites. From that point, we perform a detailed 11-items survey that includes items based on past experiences where floods,

water shortages, and other water-related issues and damage made it physically difficult to utilize water; preventive measures used to mitigate these risks; and previous countermeasures implemented when such floods or water shortages occurred.

In fiscal 2021, after a survey of 26 locations was conducted that focused on production sites, it was determined that the main water risks were inundation due to storm-related overflows of rivers and the resulting water outages. Inundation countermeasures are being implemented at sites that were determined to be prone to such risks. These include hard measures to counteract flooding, such as installing waterproof doors and moving power equipment. We also implement countermeasures against water outages, such as installing water tanks and equipment for converting well water to drinking water, in addition to keeping a stockpile of drinking water.

Moreover, at business sites, production sites, and research laboratories, we collect water volume monitoring and sampling data at discharge outlets to quickly identify any change in environmental status. We have also set in-house standards that are stricter than national and local regulations and implement countermeasures to water risks.

Since water risks in the supply chain includes business partners, we conduct environmental risk survey on their water usage and wastewater production. This allows us to grasp the situation and engage in activities to correct or improve any problems that arise.

NEC's water usage and the amount and quality of wastewater produced bear a negligible impact on the ecosystems and habitats. Furthermore, there were no violations and incidents involving water in conjunction with the Environmental Act in fiscal 2021.

### ● Response to Water-stressed Areas

Based on the results from the Aqueduct survey, NEC Platforms Thai Co., Ltd.—a production base for NEC products—is located in a water-stressed area in terms of baseline water stress.\* NEC Platforms Thai has therefore installed a water storage tank capable of securing enough water for three days of use, and has also established a system that allows collaboration with the municipal government and the local industrial estate in the event of an emergency.

\* A state in which the balance between water supply and demand in a region is tight. The indicator score is based on the "maximum volume of water available per capita," and a region is considered to be under water stress if the score falls below 1,700 m<sup>3</sup>, which is the minimum standard for water required per capita every year to meet domestic, agricultural, industrial, energy, and environmental needs. According to Aqueduct, a region is considered to be at very high risk if its water withdrawals are more than 80% of their available supply on average every year.

### ● Water Usage and Consumption Intensity

NEC uses municipal supply water, aquifer water, water for factories, and recycled water and keeps track of water usage and wastewater production at all of its locations.

We have set an annual goal to reduce water usage at all our locations by 0.52% every year, using fiscal 2019 as our baseline, and we have continuously implemented and improved water-saving measures such as increased recycling of cooling water. As a result, NEC reduced water usage by 17% year on year, thereby achieving its goal.

### ● Prevention of Water Pollution and Wastewater

NEC manages its wastewater with stricter standards than national and local governments to ensure its wastewater production does not exceed region-specific legal limits.

We have also set Companywide absolute value targets for reducing biochemical oxygen demand (BOD) and chemical oxygen demand (COD) and will continue working in fiscal 2021 to meet these targets.

We are also working to reduce the amount of chemical substances used during water treatment in order to reduce the impact of chemical trade-offs. Specifically, we prevent inputting more chemical substances than necessary by constantly monitoring water quality.

## Examples of Water Usage Reduction Initiatives

### ● Reducing Water Usage by Introducing Steam Condensate Recovery Equipment

The NEC head office building uses steam for air conditioning (heating and humidification). The installation of a steam condensate recovery system (hot well tank) enables condensate generated in the steam supply process to be reused as boiler water. As a result, we were able to reduce water usage by 1,670 m<sup>3</sup> in fiscal 2021.

### ● Water Usage by Introducing a Wastewater Reuse System

At the NEC head office building, handwashing water in each restroom, wastewater from the hot water supply room, cooling tower blow water, and rainwater are treated using the sludge method and the activated carbon filtration method, and are reused as gray water for toilet flushing water (wastewater from toilets and urinals). As a result, we were able to reduce our annual water usage by 5,650 m<sup>3</sup> in fiscal 2021.