



## **Sumitomo Realty's Environmental Conservation Initiatives**

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Page 2 — Climate Change

Page 8 — Conservation of Water Resources

Page 9 — Biodiversity

Page 11 — Curbing Environmental Pollution, Reducing Waste, and Making Effective Use of Resources

Page 14 — Environmentally Responsible Supply Chain

Updated on September 9, 2021

## Climate Change

### Issue Awareness and Action Plans

In recent years, countries around the world have been working together to reduce greenhouse gas (GHG) emissions based on the recognition that climate change is a global issue. Japan has also gained momentum in its progress toward a steady reduction of GHG, having declared the target of carbon neutrality by 2050.

The Sumitomo Realty Group recognizes that climate change has the potential to have a significant impact on its business activities not only as a risk but also as an opportunity. With this in mind, we are working to address climate change issues in conjunction with our respective stakeholders including suppliers, business partners, tenants, and industry organizations.

### Management Structure

In order to manage issues related to climate change and status of progress towards the targets, Sumitomo Realty Group has established the Sustainability Committee chaired by the Company’s President, and its subordinate organization, the Sustainability Council. In addition, the Risk Management Committee manages risks related to climate change. The Board of Directors oversees the risks, as important matters are reported to the Board of Directors as necessary.

### Initiatives

#### Initiatives for a Low Carbon Society

➤ **Participation in Industry Organizations, Support for Public Policies, and Initiatives to Achieve Climate Change Mitigation**

The Sumitomo Realty Group recognizes and supports the importance of the Paris Agreement and other agreements related to global warming countermeasures. We are working to significantly reduce GHG emissions through a range of measures, including installation of high-efficiency equipment to existing buildings through renovation.. In addition to our own efforts, we also participate in the following frameworks aimed at mitigating climate change.

◆ **The Sumitomo Realty Group’s Participation and Support for Frameworks to Mitigate Climate Change**

Organizing body	Name of committee, etc.	Position of Sumitomo Realty	Overview and initiatives
The Real Estate Companies Association of Japan	Environmental Committee	<ul style="list-style-type: none"> <li>Participate as a committee member</li> <li>Participate in related working groups and study sessions (the Environmental Condominium Working Group, the Environmental Office Working Group, the 2050 Long-Term Vision for Global Warming Countermeasures Working Group, and the Global Environmental Countermeasures Study Session)</li> </ul>	<ul style="list-style-type: none"> <li>Share case studies with real estate industry member companies to reduce their environmental load</li> <li>Formulate and promote the Real Estate Industry Environmental Action Plan, an environmental master plan for the real estate industry</li> <li>Advocate and support environmental policies and regulations related to the real estate industry</li> </ul>
Society of Hyper-Enhanced insulation and Advanced Technology houses for the next 20 years	HEAT20	<ul style="list-style-type: none"> <li>Participate as a regular member</li> </ul>	<ul style="list-style-type: none"> <li>The purpose of this project is to conduct research and development regarding to design and technology such as envelope technology, and to promote the spread and adoption of such technology. This is mainly from the perspective of the thermal environment and energy performance of living spaces and building durability with the aim of realizing homes and buildings with a low environmental load while offering safety, security, and high quality.</li> </ul>
<ul style="list-style-type: none"> <li>UN Global Compact</li> <li>Global Compact Network Japan</li> </ul>		<ul style="list-style-type: none"> <li>Signed the “UN Global Compact” in October, 2020</li> <li>A member of Global Compact Network Japan</li> </ul>	<ul style="list-style-type: none"> <li>It aims to realize a sustainable global society through each participating company and organization working toward solving social issues by demonstrating responsible and creative leadership.</li> </ul>
<ul style="list-style-type: none"> <li>TCFD (Task Force on Climate-related Financial Disclosures).</li> <li>the TCFD Consortium</li> </ul>		<ul style="list-style-type: none"> <li>Announced our endorsement of the recommendations of the TCFD</li> <li>A member of the TCFD Consortium</li> </ul>	<ul style="list-style-type: none"> <li>The TCFD chaired by Michael Bloomberg, was established by the Financial Stability Board (FSB) at the behest of the G20 as a taskforce with the objective of examining climate-related information disclosure and the responses of financial institutions.</li> </ul>

## Climate Change

### Initiatives

#### Initiatives for a Low Carbon Society

##### ➤ Reducing Greenhouse Gas (GHG) Emissions and Energy Consumption

Through constructing new buildings featuring substantial environmental performance and continuously improving environmental performance by renovating existing buildings after they reach a certain age, **Sumitomo Realty has achieved reduction of per-unit energy consumption by more than 1% per year over the last seven consecutive years, and a 37% reduction in comparison with 2009** when we initially disclosed such information. As a result, over the last four consecutive years **we have gained S rank (excellent business operator) certification, which is the highest ranking given for efforts taken to conserve energy**

under the Act on Rationalizing Energy Use.

We will keep striving to reduce its energy consumption going forward as a “S rank operator”, with the target of reducing per-unit energy consumption and per-unit GHG emissions by 1% annually.

**In fiscal 2020, we cut our per-unit energy consumption and our per-unit GHG emissions by 8.9% and 12.3%, respectively, in comparison with the previous fiscal year, leading us to achieve target reductions of 1% for both.**

\*S-class business: Certified as having reduced the five-year average for unit energy consumption by 1% or more annually or otherwise achieve specified benchmark levels.

#### 【Energy Consumption and GHG emissions volumes】

##### ◆Results

	Unit	2009	2018	2019	2020
Subject area (standardized coefficient – per-unit denominator)	Thousand m <sup>3</sup>	2,283	3,617	3,824	3,946
Energy consumption	Thousand GJ	4,562	5,245	5,300	4,982
Energy consumption	Thousand kL	118	135	137	129
Per-unit energy consumption	kL/m <sup>3</sup>	0.05156	0.03742	0.03576	0.03258

△0.0032

##### ◆Reduction target

	Single year
Reduction rate	1%
Base year	2019
Target year	2020
Per-unit volume after reduction	0.03540

	Unit	2009	2018	2019	2020
GHG emissions (SCOPE1)	t-Co2	15,302	18,916	21,831	20,485
GHG emissions (SCOPE2)	t-Co2	144,812	235,360	233,271	210,454
GHG emissions (SCOPE1&2)	t-Co2	160,114	254,276	255,102	230,939
Per-unit GHG emissions (SCOPE1&2)	t-Co2/m <sup>3</sup>	0.07014	0.07031	0.06672	0.05853

△0.0082

	Single year
Reduction rate	1%
Base year	2019
Target year	2020
Per-unit volume after reduction	0.06605

	Unit	2009	2018	2019	2020
GHG emissions (SCOPE1&2)	t-Co2	160,114	254,276	255,102	230,939
Fuel	t-Co2	15,302	18,916	21,831	20,485
Heat	t-Co2	7,217	4,190	3,976	8,220
Electricity	t-Co2	137,595	231,170	229,295	202,234

\* The scope of data collected for calculating for energy consumption and GHG emissions encompasses all the properties owned, managed, used, by the Sumitomo Realty or leased to it as office, etc. for which report is required under the Act on Rationalizing Energy Use. All GHG emissions are calculated using adjusted GHG emission coefficients.

##### ➤ Obtaining Third-Party Verification of GHG Emissions Data

Sumitomo Realty has received third-party verification of its GHG emissions from Sampo Risk Management Inc., for the purpose of ensuring objectivity in the calculation of our GHG emissions for 18 large office buildings, including Sumitomo Fudosan Roppongi Grand Tower and Sumitomo Fudosan Shinjuku Grand Tower, which account for a large proportion of Sumitomo Realty’s GHG emissions. Sampo Risk Management is a third-party verification organization stipulated in the Tokyo Metropolitan Environmental Security Ordinance.

## Climate Change

### Initiatives

#### Initiatives for a Low Carbon Society

##### ➤ Addressing Climate Change Risks and Opportunities

The Sumitomo Realty Group has established the Risk Management Committee chaired by the Company’s President, and its subordinate organization, the Internal Control Meeting, monitors risks throughout the Group. One of the major risks we monitor is risks related to climate change.

With regard to climate change risks, in addition to examining the impact of related systems and regulations on our business activities, we have identified specific risks that may affect our business based on the 2°C and 4°C scenarios. According to each

scenario, we are currently examining business strategies we have developed that incorporate the magnitude of the financial impact along with measures for mitigation and adaptation.

With respect to important matters among the identified risks, we have established a system in which such matters are supervised by the Board of Directors and discussed at important meetings, including the meeting of the Board of Directors and other management meetings..

##### < Risks and opportunities associated with climate change >

Classifications	Items	Details	Correspondence (mitigation and adaptation) /Strategies
Transition Risks	Increasing demand for Net Zero Energy Building (ZEB), Net Zero Energy House (ZEH), etc.	If there is a stronger demand for the adoption of ZEB and ZEH specifications, the environmental performance of the equipment to be installed will need to be further enhanced, which could lead to higher construction costs. As Sumitomo Realty is planning to develop office buildings of approx. 800 thousand tsubo, an increase in construction costs could affect our business plans.	We are considering installing equipment offering high environmental performance at a timely manner. In addition, with regard to ZEH, we are a regular member of “HEAT20,” advancing preparations to ensure prompt response when the social demands increase further.
Transition Risks	Introduction of a carbon tax	The introduction of a carbon tax could lead to rising costs for various building materials. As Sumitomo Realty is planning to develop office buildings of approx. 800 thousand tsubo, an increase in construction costs could affect our business plans negatively.	We keep ourselves updated on related systems and regulations to promptly respond when necessary. We also run various calculations on the assumption that the offset price per t-CO <sub>2</sub> would be equal to the carbon price..
Physical Risks	Increasing occurrence of natural disasters due to extreme weather	Approx. 90% of the office buildings that we operate are located in central Tokyo. If the region were to experience frequent extreme winds, floods and other disasters, the concentration and severity of damage and the resulting increase in repair costs could affect our business plans.	In preparation for weather hazards such as large typhoons, we set each property’s estimated flooding depth at the planning stage, based on hazard maps and actual flooding records. We have also install where necessary tide boards of sufficient height to prevent water inflow.
Opportunities	Lower prices of high environmental performance products due to their spread	If the introduction of ZEB becomes more widespread, costs of the high-efficiency equipment currently installed may decline as products become more widely available. It may lower building costs and have positive effect on our business.	By considering the costs and performance of the equipment prior to installation at the planning stage, we are prepared to respond to fluctuations in cost.
Opportunities	Increasing interest in disaster prevention features	99% of our portfolio meets or exceeds earthquake-resistance standards that took effect in 1981, which are a key yardstick for earthquake safety. Further, approximately approx. 80% of the buildings we own are structured with a seismic isolation system and/or a damping system. Emergency generators are also installed in about 70% of the buildings we own. As risks such as disasters increase, demand for properties with high disaster prevention features also is expected to increase, thus creating business opportunities.	We are working to further improve the disaster prevention features of our portfolio by realizing high disaster prevention features in new properties as well as renovating existing properties.
Opportunities	Increasing interest in environmental performance	Not only does Sumitomo Realty develop and own new properties with excellent environmental performance, it successively renovates buildings after they reach a certain age. We have been continuously striving to improve the environmental performance of our overall portfolio. As environmental awareness rises, it is assumed that our properties will receive higher evaluations.	We continue to improve the environmental performance of aged properties through renovation work. We promote the acquisition of various Green Building Certifications for these properties as objective indicators that they have sufficiently high environmental performance.

\*Transition risks were assumed based on the 2°C scenario (the Sustainable Development Scenario (SDS) in the IEA World Energy Outlook 2018 and other scenarios). Physical risks were assumed based on the 4°C scenario (the Reference Technology Scenario (RTS) in the IEA World Energy Outlook 2018 and other scenarios).

##### ➤ Contribution of CO2 Emission Credits

Sumitomo Realty has generated CO2 credits upon having reduced its CO2 emissions by more than the required volume under the Tokyo Cap-and-Trade Program. In November 2019, we contributed 111,979 tons worth of such credits to the Tokyo Metropolitan Government, thereby supporting Tokyo’s initiatives to achieve its environment conscious city “Zero Emission Tokyo” aiming at eliminating carbon dioxide emissions.

Climate Change

Initiatives

Initiatives Involving Office Buildings

➤ Heat Island Countermeasures

Sumitomo Realty's development business extend beyond energy-saving performance of buildings and contribute to improving environments in the vicinity. In recent years, increasing urbanization of central Tokyo has given rise to a heat island phenomenon whereby temperatures of Tokyo remain several degrees higher than those of surrounding areas. This has given rise to concerns that this could adversely affect the city, causing health hazards such as heat stroke or changes to ecosystems. Moreover, higher temperatures lead to excessive use of air conditioning systems, particularly during the summer when massive volumes of energy are consumed, thereby giving rise to concerns of increasing GHG emissions.

As such, Sumitomo Realty has been taking steps to address the heat island phenomenon by increasing green coverage of communities, which involves planting greenery on rooftops of buildings and

condominiums and creating green areas within open spaces and other such sites. For instance, at Sumitomo Fudosan Osaki Garden Tower, completed in 2018, we have converted an area that was previously occupied by factories into a space featuring abundant greenery, upon having achieved a 35% rate of green coverage within the development project site.

Meanwhile, Sumitomo Fudosan Shiodome Hamarikyu Building features greenery on the lower floors, and also is installed an air vent layer between the second and third floor at a height of four meters to alleviate wind currents between buildings and designed to channel ocean breezes from Hamarikyu side to Ginza and Shimbashi districts. This has enabled us to help curb the heat island phenomenon in the Shiodome area where many offices are concentrated.

➤ Energy-efficient Office Buildings

< Low-e double glazing glass >

To heighten air-conditioning efficiency for energy savings, we enhance thermal insulation performance of external walls, and also install low-e double glazing glass which reduces transmission of solar radiation heat indoors in the summer and decreases outflow of heat from indoors during the winter.

< Decentralized HVAC system >

In Sumitomo Realty's office buildings, we install decentralized HVAC systems as standard equipment, thereby enhancing tenants' convenience and energy savings. Moreover, the use of natural vents installed at window frames, as a standard specification, minimizes unnecessary use of air conditioning and enables energy savings.

< Smart meter >

All of the properties we develop in our portfolio are equipped with pulse meters (smart meters) to make it easier to monitor electricity consumption and other data.

< Adoption of gas co-generation systems >

Sumitomo Realty has introduced a power-sharing, energy-saving system centering on Izumi Garden Tower. In addition to electricity supply from a utility, this system employs private power generation using a gas co-generation system to supply electricity to Izumi Garden Annex adjacent to Izumi Garden Tower and uses waste heat for highly efficient district heating and cooling on a daily basis, thus contributing to the reduction of CO2 emissions. We have also equipped Tokyo Nihombashi Tower with a gas co-generation system.

< Other key aspects of energy-efficient design >

- District heating and cooling systems
  - Visual monitoring of energy consumption through adoption of Building Energy Management Systems (BEMS)\*
  - Use of natural energy through installation of solar panels
- \* BEMS stands for Building Energy Management Systems, which is the system for controlling and monitoring equipment of a building.

Sumitomo Fudosan Osaki Garden Tower



ECO OFFICE 

 Measures to reduce thermal loads

We apply thermal insulation to walls using an internal wall insulation method and install low-e double glazing glass windows to reduce thermal loads.

 Heat island countermeasures

We contribute to heat island countermeasures by achieving green coverage of approximately 35% across entire sites and arrange for ample greenery on-site.

 LED lighting & brightness sensors

We install LED lighting with brightness sensors as standard equipment in all rental units to save energy and help reduce CO2 emissions.

 Use of natural energy

We promote construction of environmentally-sound office buildings in part by drawing on solar power and using recycled rainwater for flushing toilets.

## Climate Change

### Initiatives

#### ➤ Acquisition of Green Building Certification

Sumitomo Realty owns many properties with high environmental performance. Including the five buildings certified with the highest rank of five stars in the DBJ Green Building Certification, the total number of certified buildings is 26, with a gross floor area of approximately 770 thousand tsubo. **This is the largest gross floor area held among the owners of buildings in the Office Building category of DBJ Green Building Certification** (as of October 2020). We will continue to achieve a high level of environmental performance by setting the continuous annual target that 100% of our new large buildings will acquire Green Building Certification.

\* The certification is granted in five grades: among the properties meeting the certification standard, which is approximately the top 20% of all domestic rental properties, five stars are awarded to the top 10% and four stars are awarded to the top 30%. Press Release (link)

#### ◆ Acquisition status ◆

Certified properties as a percentage of all properties and their area (based on gross floor area)  
53% and 769,351 tsubo

#### ◆ Progress toward targets ◆

Large-scale new buildings completed in fiscal 2020: 100% Green Building Certification



		Tsubo		
<b>Rank (5 grade evaluation)</b>  Properties with the best class environment & social awareness	Sumitomo Fudosan Shinjuku Grand Tower		54,386	
	Sumitomo Fudosan Osaki Garden Tower		53,888	
	Sumitomo Fudosan Shinjuku Garden Tower		43,127	
	Tokyo Nihombashi Tower		41,313	
	Sumitomo Fudosan Azabujuban Building		13,961	
<b>Rank (5 grade evaluation)</b>  Properties with exceptionally high environmental & social awareness	Sumitomo Fudosan Roppongi Grand Tower *	63,674	Chiyoda First Building West	19,193
	Izumi Garden Tower	61,971	Sumitomo Fudosan Shinjuku Central Park Tower	18,178
	Shinjuku Sumitomo Building	54,509	Sumitomo Fudosan Shibuya Garden Tower	17,974
	Sumitomo Fudosan Shinjuku Oak Tower	49,337	Sumitomo Fudosan Iidabashi Building No.3	16,886
	Sumitomo Fudosan Shinjuku Central Park Building	46,423	Sumitomo Fudosan Shibuya First Tower	16,015
	Shiodome Sumitomo Building	30,224	Sumitomo Fudosan Kojimachi Garden Tower	14,422
	Sumitomo Fudosan Mita Twin Building West	29,747	Sumitomo Fudosan Shibuya Tower	11,478
	Sumitomo Fudosan Iidabashi First Tower	23,715	Sumitomo Fudosan Onarimon Tower	9,890
	Sumitomo Fudosan Shibakoen First Building	19,306	Sumitomo Fudosan Akihabara Ekimae Building	9,317
	<b>Rank (5 grade evaluation)</b>  Properties with excellent environmental & social awareness	Sumitomo Fudosan Iidabashi First Building		19,041
Sumitomo Fudosan Aobadai Tower			16,871	
Sumitomo Fudosan Shiodome Hamarikyu Building			14,505	

#### ➤ Updating Facilities through Renovation

We have been continuously striving to improve the environmental performance of our overall portfolio by replacing air conditioning units with high-efficiency models, upgrading to ultra-water-saving toilets (flush volume of 6 liters), and switching to LED lighting.

Climate Change

Initiatives

Initiatives Involving Condominium Sales

In its condominium sales business, Sumitomo Realty helps curb global warming by improving the energy-saving performance of its buildings through use of the following types of equipment and practices.

- Low-e double glazing glass
- Latent-heat-recovery-type gas-powered hot water supply systems
- Thermo Bath bathtubs
- Total heat exchange systems
- Heat pump systems
- Photovoltaic power generation facilities
- Charging stations for electric vehicles
- Roof greening
- Smart meter

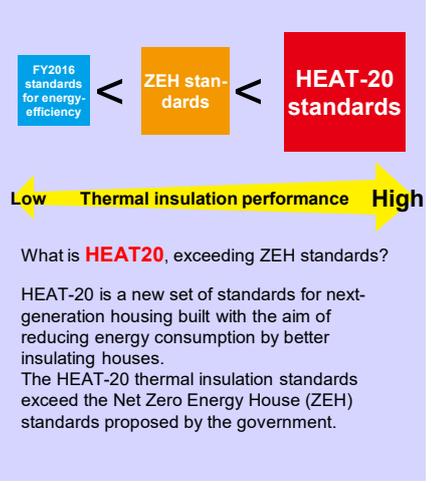
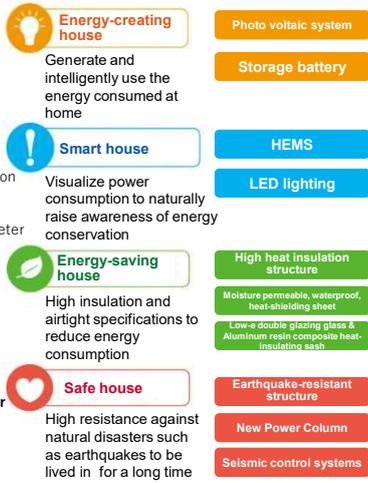
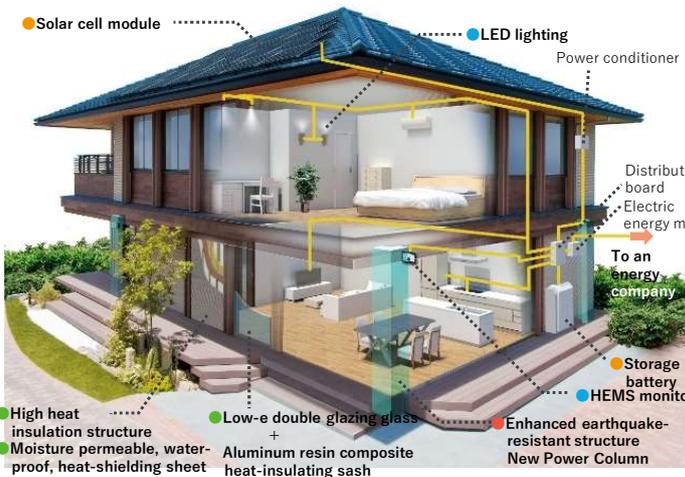


Garden Hills Yotsuya

Initiatives Involving Detached Houses

In its custom home business, Sumitomo Realty promotes greater prevalence of residences that have a minimal environmental load. We have made the Net Zero Energy House (ZEH\*1) concept a reality by curbing energy consumption with stringent specifications for thermal insulation and airtight design and installing equipment that generates energy such as Eco-Cute systems, photovoltaic power generation facilities, and storage batteries. We also install home energy management systems (HEMS)\*2 that enable residents to visually monitor their power consumption. Moreover, our buildings constructed under BREATH

NEXT high-performance package plans have been well-received by our customers given that they boast 1.5 times the thermal insulation performance of that under ZEH standards (relative to the UA value\*3; BREATH NEXT: 0.38 W/m<sup>2</sup>K; ZEH standard: 0.6 W/m<sup>2</sup>K\*4). Sumitomo Realty will keep working to achieve more sophisticated technologies going forward, in part through its participation as a member of the Investigation committee of HEAT-20\*5 which was established in 2009 with the aim of developing energy-efficient houses even more advanced than those built under ZEH standards.



\*1 ZEH stands for Net Zero Energy House, which refers to a house that effectively consumes zero energy by combining elements of energy savings with elements of energy generation.  
 \*2 HEMS stands for Home Energy Management System, which is a management system that helps save energy used in the home. Linking home appliances and electrical equipment to an HEMS enables users to visually observe such devices using a video monitor that tracks consumption of electricity, gas and other energy sources, and also enables users to automatically control home appliances.  
 \*3 A "UA value" is the rate of average heat flow across a building's envelope. It constitutes the average amount of heat that escapes from the inside of a house through its floor, outer walls, ceiling and roof, gaps, and elsewhere, to the outside across the entire building envelope.  
 \*4 The ZEH standard of 0.6 W/m<sup>2</sup>K (watts per square meter per degree Kelvin) is used as a standard value in Japan's Kanto region, which is the main geographic area where Sumitomo Realty supplies custom homes.  
 \*5 HEAT-20 refers to the Investigation committee of Hyper Enhanced insulation and Advanced Technique for 2020 houses. The HEAT-20 Investigation committee aims at: developing advanced technologies for achieving high-performance thermal shelters for housing while maintaining health and improving comfort of residents, and; raising awareness of assessment methods and thermally insulated housing. To such ends, it takes a long-term perspective to focusing on thermal insulation and other architectural technologies geared to achieving further energy savings in homes.

## Conservation of Water Resources

### Issue Awareness and Action Plans

Shortages of water resources have become a major problem throughout the world due to increasing demand for water as the population grows, coupled with droughts caused by climate change. We deem that problems stemming from the shortage of water expose to business risk, given that water resources are an indispensable resource for the entire business of the Sumitomo Realty

Group.

As such, the Sumitomo Realty Group, under awareness of the value of water resources, will take action to conserve water resources, working in conjunction with our respective stakeholders including suppliers and tenants.

### Initiatives

#### ➤ Installing Water-saving Equipment and Facilities

Sumitomo Realty is reducing wastage that occurs when water is left running by equipping washbasin faucets with water-saving devices at all office buildings it develops. Furthermore, in order to promote installation of water-saving equipment at all properties it develops, it is adopting design standards specifying use of ultra-water-saving toilets, flush volume of 6 liters-significantly less compared with 13 liters used by

previous model, installing them to all new buildings as well as renovations of our existing properties.

In addition, we have been substantially reducing our water consumption by setting up sewage and rainwater reclamation facilities, mainly in large office buildings, that purify the water, and using the greywater to flush toilets and water plants.

#### ➤ Business Activities in Water-Stressed Areas

The Sumitomo Realty Group has not earned any revenue from its business activities in areas where water stress is a concern\* as of September 2021, based on the Aqueduct Survey conducted by the World Resource Institute (WRI).

Japan, where our main business activities are mainly based, has been certified as a “Low-Medium” water risk area, which means that it is identified as a region with relatively low water stress.

\* Areas defined as “High” and “Extremely High” with a risk score exceeding 3

#### ➤ Initiatives to Reduce Water Consumption in Collaboration with External Parties

In addition to its own initiatives, the Sumitomo Realty Group is also committed to working more broadly with the Japanese real estate industry to promote environmental conservation measures, such as reducing water consumption. We are a regular member of the Environmental Committee of The Real Estate Companies Association of Japan.

The Committee formulated the Real Estate Industry Environmental Action Plan in 2013, with specific action goals such as the introduction of high-efficiency, water-saving fixtures, automatic faucets, and automatic flushing devices, for the entire industry to work together to reduce water consumption.

#### ➤ Data related to Water

Volume of water withdrawal and wastewater by Sumitomo Realty are listed as follows.

Water withdrawal		2018	2019	2020	Wastewater		2018	2019	2020
Subject area (standardized coefficient)	Thousand m <sup>3</sup>	3,513	3,731	3,851	Subject area (standardized coefficient)	Thousand m <sup>3</sup>	3,513	3,731	3,851
Water withdrawal	Thousand m <sup>3</sup>	2,589	2,735	1,983	Wastewater	Thousand m <sup>3</sup>	2,459	2,657	1,843
Per-unit water withdrawal	Thousand L/m <sup>2</sup>	0.7371	0.7332	0.5151	Per-unit wastewater	Thousand L/m <sup>2</sup>	0.7000	0.7122	0.4787

\* All of the abovementioned withdrawals are from tap water. No withdrawals are from surface water, groundwater, external wastewater, or seawater.  
 \* The scope of data collected for calculation for water withdrawal and wastewater encompasses all the office buildings owned and managed by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

\* All of the abovementioned withdrawals are from tap water. No withdrawals are from surface water, groundwater, external wastewater, or seawater.  
 \* The scope of data collected for calculation for water withdrawal and wastewater encompasses all the office buildings owned and managed by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

Biodiversity

Issue Awareness and Action Plans

The Sumitomo Realty Group maintains significant influence on biodiversity integral rooted in land, particularly given the nature of development business involving office buildings, condominiums and other such properties. Biodiversity is intimately relevant to all environmental issues, including climate change, conservation of water resources, and environmental pollution.

Based on this awareness, the Sumitomo Realty Group makes it our principle to consider not only the comfort of our customers and community members, but also our surrounding environments and ecosystems. We work to remain committed to preserving biodiversity in conjunction with our respective stakeholders including suppliers and community members.

Initiatives

➤ **Redevelopment Business and Biodiversity**

Sumitomo Realty's redevelopment business contribute to biodiversity. One such example is Sumitomo Fudosan Osaki Garden City, which involved redevelopment of a former driving school site and a densely built-up district of wooden housing on the west side. The area occupied by densely-built wooden houses had contained little greenery and narrow streets which posed challenges with respect to disaster response. By the completion of Osaki Garden City, the overall location's green coverage increased to 35% including its roof greening, and it also helped revitalize the community, utilizing the vast open space on the site to hold various events.

The Osaki Garden City Cherry Blossom Festival was held for the first time in March 2019, and helped the local community take shape as residents gathered amongst the cherry trees. During the festival, additional cherry trees related to the area were planted as one of the events.

The trees have a historical connection to the location and to a man called Harutaro Kawase, who owned the former Myoka-en botanical garden situated in the vicinity of Myoko-ji Temple adjacent to the site. He selected the Washington DC cherry trees that were sent to Washington DC by a former mayor of Tokyo, Yukio

Ozaki, as symbol of goodwill between Japan and the United States. Since then, the cherry trees he selected have remained free of disease and continue to blossom beautifully on the banks of the Potomac River in Washington DC.

With the aim of passing down the historic achievements of Harutaro Kawase, two satogaeri (homecoming) cherry trees from Washington DC, donated by his grandson, Kenichi Kawase, and the Yukio Ozaki Nationwide Promotion Association, were planted, in addition to the eleven satogaeri cherry tree saplings previously planted upon completion of Osaki Garden City at the behest of the president of the redevelopment association and local community members.

The trees planted by Sumitomo Realty in conjunction with the redevelopment association will play a role in passing down the local history to future generations, while also helping to revitalize the community and hasten its biodiversity.

Through Osaki Garden City and other redevelopment business, Sumitomo Realty aims to create green areas in numerous areas, thereby providing spaces for community members to encounter natural surroundings and for nurturing rich biodiversity.



## Biodiversity

### Initiatives

#### ➤ Environmentally Friendly Development

Sumitomo Realty promotes the development of environmental real estate through efforts such as selecting local native species for the trees we plant, developing green areas in accordance with the size of the property, and installing high-efficiency equipment. This applies to our development of office buildings and other properties in all regions including greenfield land that has not yet been developed. In developing environmental real estate, we refer to the evaluation indicators of Green Building Certification, whose certification we have acquired for all our office buildings with a gross floor area of over 50,000 m<sup>2</sup>.

#### ➤ Green Open Spaces

In urban areas with few parks or open spaces, the creation of green open spaces is a vital aspect of new development projects. City Tower Kanamachi has an approximately 3,800m<sup>2</sup> spacious green area open to the public.

With tall trees, various shrubs and flowers, the area provides a source of delight throughout the year for local residents with places to enjoy the changing beauty of the four seasons, which is rare in an urban setting.



#### ➤ Development that Protects and Makes the Most of Virgin Forests

Urban development projects tend to involve the removal of mature trees that are already on sites earmarked for development. In contrast, Sumitomo Realty seeks to preserve such trees so that they can be utilized as greenery to accomplish attractive urban development in harmony with nature. La Tour Sapporo Ito Garden was developed on the site formerly occupied by Kairakuen, one of the first municipal parks in Japan. The site includes a tract of virgin forest conserved since the time of Kairakuen and remains notable as a place where nature flourishes in an urban setting.



#### ➤ Endorsement of “Declaration of Biodiversity by Keidanren”

The Sumitomo Realty Group endorses the Declaration of Biodiversity by Keidanren and promotes business activities in consideration of biodiversity.

##### Declaration of Biodiversity by Keidanren (Revised Edition)

KEIDANREN (Japan Business Federation) Introduced March 17, 2009, Revised October 16, 2018

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Responsibility of management<br/>Commit to corporate management aiming at corporate activities in harmony with nature towards realizing a sustainable society</li> <li>2. Global perspective<br/>Act from a global perspective on the biodiversity crisis</li> <li>3. Voluntary actions<br/>Act voluntarily and steadily to contribute to biodiversity</li> <li>4. Integrated Environmental Corporate Management<br/>Promote Integrated Environmental Corporate Management</li> </ol> | <ol style="list-style-type: none"> <li>5. Revitalization of regions making full use of natural capital<br/>Contribute to regional revitalization utilizing natural capital, holding nature in awe</li> <li>6. Partnership<br/>Collaborate with relevant international and national organizations</li> <li>7. Environmental Education / Human Resource Development<br/>Spearhead initiatives on environmental education and human resource development to create a society that will nurture biodiversity</li> </ol> |
|---|---|

\* Excerpts of each clause only; see website for original text. (Website for the Declaration of Biodiversity by Keidanren: <https://www.keidanren.or.jp/en/policy/2020/055.pdf>)

#### ➤ Use of Rainforest Alliance Certified Products

Sumitomo Realty Group company Izumi Restaurant Co., Ltd. operates Rieven House convenience stores catering to building tenants. The Rieven House uses environmentally certified coffee beans grown in Rainforest Alliance Certified plantations. “Rainforest Alliance Certified” refers to certification granted exclusively to plantations that exceed stringent environmental standards, issued by the international nonprofit organization Rainforest Alliance which carries out region-wide projects to protect forests.

Curbing Environmental Pollution, Reducing Waste, and Making Effective Use of Resources

Issue Awareness and Action Plans

The Sumitomo Realty Group recognizes that environmental pollution, high-volume discharge of waste material and squandering of resources constitute substantial social issues that must be given due consideration when conducting business activities.

As such, we will take action geared toward curbing environmental pollution, reducing waste, and making effective use of resources, working in conjunction with our respective stakeholders including suppliers and tenants.

Initiatives

Curbing Environmental Pollution

➤ **Process-Based Targets for Curbing Environmental Pollution**

The Sumitomo Realty Group aims to curb environmental pollution associated with its business activities as much as possible by implementing measures related to environmental pollution in accordance with the relevant laws and regulations. In addition to complying with laws and regulations, we enhance the effectiveness of our measures by regularly checking their management status from a third-party perspective, mainly through the Internal Audit Office.

➤ **Measures regarding Asbestos and Formaldehyde**

When renovating buildings, we engage in such work upon having checked to ensure that our contractors comply with asbestos-related laws and regulations. In addition, with respect to its condominiums and detached houses, Sumitomo Realty pursues creation of healthy dwellings using building materials and interior components that meet JIS and JAS standards for low formaldehyde emissions which give rise to sick house issues.

➤ **Appropriate Management and Disposal of CFCs**

We properly manage and dispose of CFCs used as air conditioning refrigerants in accordance with laws and regulations.

➤ **Soil Contamination Countermeasures**

Sumitomo Realty conducts thorough geological surveys for all office buildings, condominiums and other developments.

In addition to complying with the Soil Contamination Countermeasures Act, we conduct contamination investigation according to the geological history and the results of the geological survey even for small-scale developments where legal survey is not required.

For land that has been confirmed to be contaminated by hazardous substances (brownfield), we ask a designated contaminated soil treatment company, based on the Soil Contamination Countermeasures Act, to carry out the appropriate purification and diffusion prevention treatment prior to development.



➤ **Measures regarding Nitrogen Oxide and Sulfur Oxide**

Sumitomo Realty regularly measures and analyzes soot and smoke emitted by boilers and hot-cold water generators to ensure that they comply with environmental standards stipulated by the Air Pollution Control Act. The investigation is conducted by third parties, and we conduct operations after confirming the absence of abnormalities in the concentrations of air pollutants, such as particulate matter, nitrogen oxide and sulfur oxide.

Tokyo Nihombashi Tower nitrogen oxide (NOx) and sulfur oxide (SOx) emissions		2019	2020
NOx emissions	t	0.0780	0.0370
SOx emissions	t	0	0

\* The annual emissions from four hot-cold water generators in Tokyo Nihombashi Tower, calculated based on the concentrations of soot & smoke and the operating hours of the equipment.

➤ **VOC Emissions**

The Sumitomo Realty Group does not own or manage any facilities (such as drying and other facilities for the manufacture of chemical products) that are subject to legal restrictions due to their high VOC emissions under the VOC emission control system stipulated by the Air Pollution Control Act.

Curbing Environmental Pollution, Reducing Waste, and Making Effective Use of Resources

Initiatives

Reducing Waste and Making Effective Use of Resources

➤ Process-Based Targets for Reducing Waste and Making Effective Use of Resources

The Sumitomo Realty Group aims to reduce waste and promote the effective use of resources in its business activities. In addition to fulfilling our responsibilities as a business operator as stipulated in the Tokyo Metropolitan Waste Management Ordinance and other regulations, we promote various activities, such as raising awareness among tenants of our office buildings, to further reduce waste and use resources effectively.

➤ Waste Discharge

Volumes of waste discharged by Sumitomo Realty are listed as follows.

TargetSubject area (standardized coefficient – per-unit denominator)	Thous and m <sup>2</sup>	2018	2019	2020
Total waste volume	t	17,721	17,272	14,397
Industrial waste	t	13,209	12,635	11,262
General waste	t	4,512	4,637	3,135
Units	t/m <sup>2</sup>	0.0051	0.0047	0.0038

\* The scope of data collected for calculation for waste discharge volumes encompasses some portions of office buildings owned, managed, and used by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

➤ Volume of Recycled Waste

Volume of recycled waste discharged by Sumitomo Realty are listed as follows.

		2018	2019	2020
Volume of recycled waste	t	9,289	9,383	6,438
Total waste volume	t	17,721	17,272	14,397
Percentage of waste recycled	%	52.4%	54.3%	44.7%

\* Figures for volume of recycled waste include thermal recycling only if they are non-combustible materials.  
\* The scope of data collected for calculation for recycled waste discharge volumes encompasses some portions of office buildings owned, managed, and used by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

➤ Reducing Waste in Shinchiku Sokkurisan Remodeling Business

In Japan, the lifespan of houses tends to be short compared to world standards, so does the cycle of home rebuilding. Meanwhile, a high proportion of the industrial waste generated by the construction industry is attributed to home demolition. This situation suggests the need to extend the lifespan of houses in Japan, and to bring about a transition to a “stock-type society” where they are used over the long-term.

The short rebuilding cycle generates large volumes of industrial waste and squanders resources that could still be put to use. It leads to a situation where robust and usable pillars and beams end up getting discarded even though timber tends to become stronger and more rigid over the course of a century or so. Even in

remodeling, it conventionally repeats piecemeal projects, resulting in generation of industrial waste each time.

**Sumitomo Realty’s Shinchiku Sokkurisan remodeling business is a revolutionary system that involves extending the life of existing houses through earthquake-reinforcement work while retaining the main structural elements, thereby reducing the waste of resources and curb the generation of industrial waste in comparison with rebuilding.**



Before remodeling

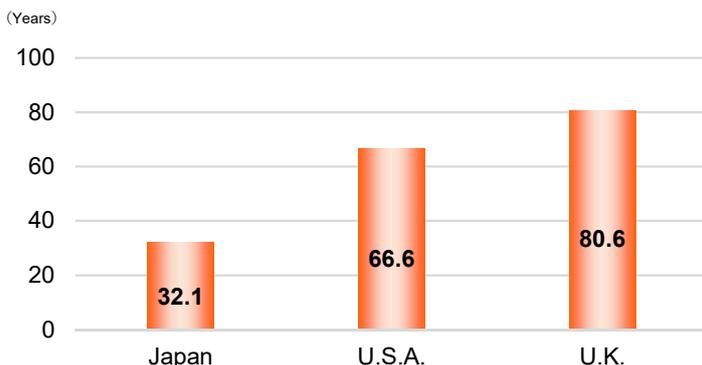


Home interior stripped down to its main structural elements



After remodeling

< International comparison of the average age of houses >



Source: "International Comparison of the Average Age of Houses Deregistered in 2018" Ministry of Land, Infrastructure, Transport and Tourism

Curbing Environmental Pollution, Reducing Waste, and Making Effective Use of Resources

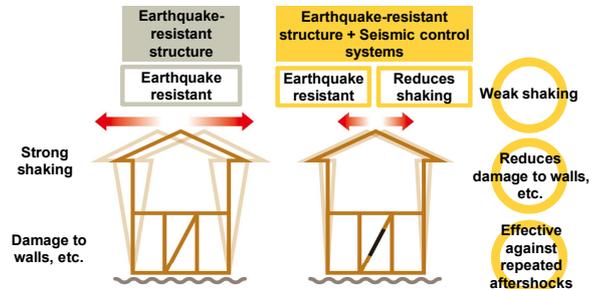
Initiatives

Reducing Waste and Making Effective Use of Resources

➤ Reducing Waste in Custom Home Business

In Sumitomo Realty’s custom home business, we use specification standards under the “long-life quality housing”\* certification standard (measures against deterioration grade 3, thermal insulation performance grade 4, upkeep grade 3, earthquake resistance grade 3). We will help reduce industrial waste by extending the rebuilding cycle as a result of supplying this highly durable housing.

\* “Long-life quality housing” refers to a certification system operated by Japan’s Ministry of Land, Infrastructure, Transport and Tourism (MLIT) pursuant to the Act on the Promotion of Popularization of Long-life Quality Housing which aims at a transition to a “stock-type society.”



\* The effectiveness in mitigating deformation, which is based on the results of earthquake response analysis in our model plans, and varies depending on building specifications, layout plans, seismic waves, and other factors.

➤ Reducing Waste in the Building Development Business

Extending the life of buildings through architectural design that ensures long-term use with minimal deterioration will contribute greatly to reduction of environmental load by minimizing resources wasted and industrial waste generated through rebuilding.

In conjunction with superior earthquake resistance and fire resistance, Sumitomo Realty’s office buildings are designed to respond to various changes in work styles, office layouts, and IT evolution, in terms of both function and space.

For example, the “ceiling grid system” incorporates ceiling equipment into lighting panels to make relocation of the equipment easy, enabling it to respond flexibly to a change in office layout and minimize waste generation.



➤ Proper Disposal of Waste Material Subject to Specified Controls

Sumitomo Realty properly disposes of PCB waste, which is deemed as a hazardous waste substance, in accordance with laws and regulations.

PCB emissions and disposal costs		2018	2019	2020
PCB emissions	kg	730	9,470	9
Disposal costs	Thousand yen	1,386	9,025	784

\* The scope of data collected for calculation encompasses all the office buildings owned and managed by Sumitomo Realty.

➤ Implementation of Measures Against Marine Plastics

At Rieven House convenience stores, operated by Sumitomo Realty Group company Izumi Restaurant Co., Ltd., we work to help reduce the use of plastic bags by encouraging customers to use their own reusable bags. In addition, some of the restaurants the company operates have switched to using paper straws instead of plastic straws for the beverages they offer. Through these efforts, we are reducing the amount of plastic waste that adversely affects the marine environment.



➤ Penalties and Fines

In fiscal 2020, Sumitomo Realty incurred neither penalties nor fines under laws and regulations related to waste material and environmental pollution.

## Environmentally Responsible Supply Chain

### Issue Awareness and Action Plans

Suppliers in the real estate industry consist of a wide range of businesses that include not only construction companies, manufacturers, and other businesses involved in building construction but also cleaning companies, maintenance and inspection companies, and many others. Contributing to environmental conservation through our business requires not only our own efforts but also cooperation across the entire supply chain. The Sumitomo Realty Group aims to contribute to

environmental conservation throughout its entire supply chain. From development through to the management and operation of our real estate portfolio, we are focusing on the realization of a sustainable society in conjunction with our respective stakeholders with the aim of resolving various environmental issues, such as climate change, conservation of water resources, preserving biodiversity, and reduction of waste.

### Initiatives

#### Seeking Cooperation from Suppliers

##### ➤ Dissemination and Training of Environmental Policies to Suppliers

The Sumitomo Realty Group has established the Sustainable Procurement Guidelines, which we disseminate to our business partners to request their cooperation. As part of the efforts of to implement “Consideration for the Environment ” under the guidelines, we ask our suppliers to cooperate in the following areas: reducing the risk of climate change, promoting the efficient use of water resources and energy, reducing the burden on biodiversity, preventing environmental pollution, promoting the

effective use of resources, and reducing waste. The guidelines are publicly available on our website at all times and are explained to each supplier when necessary, such as at the start of a business transaction. In addition, we provide individual training opportunities for businesses that we assess as having a particularly large impact on environmental quality to further promote the dissemination of our environmental policies.

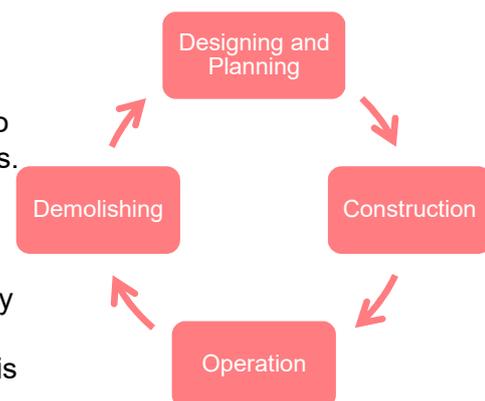
##### ➤ Supplier Monitoring and Environmental Quality Reporting

In the Building Development Division of Sumitomo Realty, we have established a system for monitoring the environmental quality of suppliers at all the properties we manage with regular reports provided by service staff and cleaning staff Based on the results of this monitoring, we take specific corrective measures as necessary, enabling us to maintain a high level of environmental quality.

In order to reduce waste and promote recycling, our employees regularly receive direct reports on the status of waste separation at the site. If the separation status is not satisfactory, we re-sort the waste at the garbage depot and alert tenants. This helps to reduce the amount of waste generated and improve the recycling rate.

##### ➤ Participation in Initiatives Related to Environmental Impacts in the Supply Chain

Sumitomo Realty is a regular member of the Long-Term Vision for Global Warming Countermeasures Working Group formed within the Environmental Committee of The Real Estate Companies Association of Japan. The committee has been discussing and promoting how to quantify contributions to reducing emissions throughout the value chain as well as policies for initiatives. The committee also studies and analyzes how the real estate industry can contribute to reducing emissions in each phase of a building’s life cycle, from designing and planning to constructing, operating, and demolishing. We are working to visualize the CO2 emissions structure of each supplier in the supply chain including the energy efficiency of construction materials and heavy construction equipment at the construction phase. We are striving to reflect this information analysis into the plans for new constructions.



Environmentally Responsible Supply Chain

Initiatives

Collaborations with Tenants and Suppliers in Our Real Estate Portfolio

➤ Environmental Management System (EMS)

Sumitomo Realty has introduced its own EMS to monitor the environmental impact from its office building business and is working to continuously improve conditions using the PDCA cycle.

\* We have not introduced EMS evaluation indicators such as ISO 14001.

<Plan>

Consider the actual data, social conditions, governmental systems and other factors when designing outlines for property development and setting reduction targets for energy consumption and GHG emissions for each property of the portfolio.

<Action>

Based on the results of the analysis, make new plans which include improvement to operating policies and installation of high-efficiency equipment by renovations, and carry them out toward achieving the targets for the next fiscal year,.



<Do>

Implement energy-saving measures in conjunction with tenants and upgrade to high-efficiency equipment to achieve the targets.

<Check>

Share actual energy consumption and GHG emissions with the on-site building manager, service staff and secretariat, and check the achievement status of annual targets set in advance for each property. If the achievement status is not satisfactory then analyze the reasons.

➤ Energy Conservation Initiatives in Conjunction with Tenants, and Changes in Consumption and Emissions

Sumitomo Realty not only develops office buildings featuring substantial environmental performance, but also strives to save energy with respect to management and operation of such buildings upon their completion. It is crucial that we coordinate efforts with our tenants in that regard, given that the major part of a building's energy consumption is attributable to the tenant-leased areas of buildings. In addition to seeking cooperation from tenants in energy-saving activities in accordance with management bylaws and other requirements, we have established a system that incentivizes energy conservation by adopting a pay-as-

you-go electricity rate, and we disclose energy consumption as necessary. In this manner, we are implementing green leases for operational improvement at all of our properties. We furthermore strive to curb power consumption by raising awareness of energy conservation among users of our buildings through initiatives that include notifying tenants of their monthly volumes of energy consumed in the tenant-leased areas when necessary, and displaying posters inside buildings encouraging energy conservation.

◆ Energy consumption and GHG emissions of Sumitomo Realty's real estate portfolio

◆ Results

	Unit	2018	2019	2020
Subject area (standardized coefficient - per-unit denominator)	Thousand m <sup>2</sup>	3,513	3,731	3,851
Energy consumption	Thousand GJ	5,098	5,189	4,872
Energy consumption	Thousand kL	132	134	126
Per-unit energy consumption	kL/m <sup>2</sup>	0.03744	0.03589	0.03265

△0.0032

GHG emissions (SCOPE1)	t-Co2	18,391	21,322	20,028
GHG emissions (SCOPE2)	t-Co2	228,907	228,707	206,101
GHG emissions (SCOPE1&2)	t-Co2	247,298	250,029	226,130
Per-unit GHG emissions (SCOPE1&2)	t-Co2/m <sup>2</sup>	0.07040	0.06701	0.05873

△0.0083

◆ Reduction target

	Single year
Reduction rate	1%
Base year	2019
Target year	2020
Per-unit volume after reduction	0.03553

	Single year
Reduction rate	1%
Base year	2019
Target year	2020
Per-unit volume after reduction	0.06634

## Environmentally Responsible Supply Chain

### Initiatives

#### Collaborations with Tenants and Suppliers in Our Real Estate Portfolio

##### ➤ Securing Water Resources, and Changes in Water Withdrawal and Wastewater

Sumitomo Realty also takes steps to restrict water consumption in office buildings by working in conjunction with our tenants. For instance, we encourage our tenants to reduce water wastage by notifying each company, when necessary, of their monthly water consumption volumes in tenant-leased areas.

##### ◆ Water withdrawal and Wastewater of Sumitomo Realty's real estate portfolio

Water withdrawal		2018	2019	2020
Subject area (standardized coefficient)	Thousand m <sup>3</sup>	3,513	3,731	3,851
Water withdrawal	Thousand m <sup>3</sup>	2,589	2,735	1,983
Per-unit water withdrawal	m <sup>3</sup> /m <sup>2</sup>	0.7371	0.7332	0.5151

\* All of the abovementioned withdrawals are from tap water. No withdrawals are from surface water, groundwater, external wastewater, or seawater.  
 \* The scope of data collected for calculation for water withdrawal and wastewater encompasses all the office buildings owned and managed by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

Wastewater		2018	2019	2020
Subject area (standardized coefficient)	Thousand m <sup>3</sup>	3,513	3,731	3,851
Wastewater	Thousand m <sup>3</sup>	2,459	2,657	1,843
Per-unit wastewater	m <sup>3</sup> /m <sup>2</sup>	0.7000	0.7122	0.4787

\* All of the abovementioned withdrawals are from tap water. No withdrawals are from surface water, groundwater, external wastewater, or seawater.  
 \* The scope of data collected for calculation for water withdrawal and wastewater encompasses all the office buildings owned and managed by Sumitomo Realty for which report is required under the Act on Rationalizing Energy Use.

##### ➤ Preserving Biodiversity

Sumitomo Realty is committed to preserving biodiversity across its real estate portfolio by planting greenery using local native species in accordance with the size of the properties in all the office buildings we develop and surrounding public open spaces. By using local native species in all of our development properties and formulating a manual of countermeasures against designated invasive alien species, we contribute to maintaining ecosystems that are unique to each

region. The open green spaces that we develop provide habitats for plants and animals as well as places for local communities to enjoy nature. Sumitomo Fudosan Shinjuku Garden Tower realized large scale greening with a total green area of 5,684 m<sup>2</sup> (34% green coverage). The area forms a “green network” connecting the adjacent Toyama Park and Nishi-Toyama Park, and ensures habitats for diverse plants and animals in central urban location.

##### ➤ Initiatives to Reduce Waste and Promote Recycling

At Sumitomo Realty's office buildings, we carry out activities to reduce waste discharge and promote recycling across our entire portfolio. In addition to displaying posters to raise awareness of waste reduction and recycling among tenants, we promote waste separation by providing waste separation bins to tenants at our own expense when they move in. In addition, we have concluded contracts with waste disposal companies for each building to ensure the appropriate recycling of

recyclable waste, such as dry cell batteries, fluorescent lamps, styrofoam, metal, PET bottles, cans, jars, and used paper. Used paper from the garbage depots at our properties is recycled into toilet paper and other materials following the appropriate processing. Toilet paper made from recycled paper is used in the common restrooms at our properties, contributing to the recycling of resources.

##### ➤ Participation in the PET Bottle B-to-B Recycling Experiment

Sumitomo Realty collaborated with Japan TCGF to conduct experiments on the collection of used PET bottles from January to February 2020. The experiment aimed to contribute to sustainability from the perspective of resource conservation and decarbonization by enabling the horizontal recycling of PET bottles. By using this more advanced technology rather than material

recycling, we recycled used PET bottles discharged from our properties into PET bottles, converting waste into a valuable recycling resource, and contributing to the realization of a recycling-oriented society.

\* Japan TCGF is an organization led by Japanese companies in the consumer goods distribution industry. Its members, made up of manufacturers, wholesalers and retailers, work together to plan and implement solutions to common issues in non-competitive fields in Japan. In order to achieve the earliest possible reconstruction and recovery from the Great East Japan Earthquake in March 2011 and to create a new Japan, Japan TCGF was established in August of the same year with the aim of realizing a better life for consumers.