Main Category	Environmental Protection
Sub Category	Climate Change Mitigation

The Sustainable Development Goals (SDGs) were adopted at the United Nations Summit in September 2015 to be achieved by 2030. Water services are required to be more environmentally conscious by conserving water resources and reducing environmental footprint in energy consumption.

Availability of sufficient high quality water resources on a sustainable basis is important to ensure the sustainability of water supply. It is important for water utilities to keep managing for the healthy water cycle and proactively implement environmental protection including water source conservation.

Reducing energy use and promoting more renewable energy in particular will improve the operational efficiency of the water supply system and its sustainability. Examples of environmental protection measures are listed below.

1. Promote less energy consumption and make it more renewable by introducing:
- Energy conservation measures and new or renewable energy sources
- High efficiency energy saving equipment, inverter control of pumps, and battery storage for peak shaving
- Hydroelectric/photovoltaic/biomass/geothermal/other power generation system
- Effective use of location-based energy derived from upstream surface water intake

2. Effective use of soil generated from water treatment and construction
- More recycling through effective use of soil generated from water treatment (gardening soil, ground soil).
- More recycling through effective use of construction soil

The JWRC website provides detailed information on the following examples of environmental protection measures taken by Japanese water utilities.

Table Environmental Protection Measures Taken by Japanese Water Utilities (as of FY2021 on JWRC website)

No.	Water utility	Case study
1	Saitama City	High efficiency water distribution pumps
2	Kanagawa Prefecture	Photovoltaic power generation through effective use of facility space
3	Yokohama City	Water source conservation through management of water source forests
4	Chiba Prefecture	Micro hydroelectric power generation for 2.4% energy reduction
5	Osaka Water Supply Authority	Economic water transmission based on water demand forecasts
6	Tokyo	Reducing 21% power consumption through high efficiency pumps
7	Kitakyushu City	Water treatment utilizing microorganisms

Reference	Ministry of Health, Labour and Welfare. New Water Supply Vision.

	https://www.mhlw.go.jp/stf/houdou/2r9852000002yndbatt/2r9852000002yngq.pdf