

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The Company employs more than 6,400 dedicated professionals who provide drinking water, wastewater and other related services to more than 14 million people in 24 states. American Water provides safe, clean, affordable, and reliable water services to our customers to help keep their lives flowing.

The Company conducts most of its business through regulated utilities that provide water and wastewater services, collectively presented as the "Regulated Business." This primary business involves the ownership of utilities that provide water and wastewater services to residential, commercial, industrial, public authority, fire service and sale for resale customers. The operations of the Company's Regulated Businesses are generally subject to regulation by public utility commissions (PUCs) in the states in which they operate, with the primary responsibility of the PUCs being the promotion of the overall public interest by balancing the interest of customers and utility investors. Specific authority might differ from state to state, but in most states, PUCs review and approve rates charged to customers, accounting treatments, long-term financing programs and cost of capital, operation and maintenance expenses, capital expenditures, taxes, affiliated transactions and relationships, reorganizations, mergers and acquisitions, and dispositions, along with imposing certain penalties or granting certain incentives. American Water tracks greenhouse gas (GHG) emissions (GHGe) related to its Regulated Business; responses in this report apply accordingly.

In addition, the Company operates Market-Based Businesses that provide complementary water and wastewater services to municipalities and the U.S. government on military installations that own their utility systems. Energy and emissions data related to Market-Based Business are outside the scope of this report.

The Company also develops and implements solutions to meet the country's many water challenges, including our own proprietary Research and Development group comprised of scientists with backgrounds in chemistry, engineering and microbiology, several with Ph.D.s., working in partnership with the United States Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention, state regulators (e.g., Departments of Environmental Protection), and water research foundations.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.

United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Financial control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a CUSIP number	030420103
Yes, a Ticker symbol	AWK

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	The Safety, Environmental, Technology and Operations (SETO) Board Committee is a standing committee within American Water's board of directors with oversight of: employee and public safety policies, practices and performance; environmental strategies and performance, compliance with environmental laws and regulations, and programs and policies with respect to protecting the environment, including climate variability, greenhouse gas emissions, water quality and contaminants of emerging concern, and water conservation; technology policy and strategy, and related to technology strategy governance, including physical/cybersecurity issues; and operational performance and risks not covered by another Board Committee. The SETO Committee also monitors and reviews operational risk exposure, risk mitigation strategies and processes for assessing business continuity risks, including asset hardening, resiliency, and related contingency plans. This includes climate-related risks, such as more frequent and severe extreme weather events and natural disasters and resulting resiliency investments and efforts.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The SETO Committee, which meets quarterly, oversees programs and policies with respect to protecting the environment, including the Company's sustainable efforts concerning water conservation, climate variability, contaminants of emerging concern, and greenhouse gas emissions.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Competence is based on professional experience with climate-related subjects.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Financial Officer (CFO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Operating Officer (COO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Vice President and Chief Environmental & Safety Officer)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Capital Program Management Committee (CPMC))	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Positions listed are on the Executive Leadership Team, responsible for driving programs and policies that support the Company's Environmental Goals, as well as receive updates on climate-related issues and Company metrics regularly.

CEO has overall responsibility for creating, planning, implementing, and integrating the strategic direction of the Company. Integration of climate-related issues, and strategy to mitigate such risks into overarching Company plans is integral to the success of the business. Climate-related responsibilities are assigned to this position because the CEO is accountable for the long-term sustainability of the Company.

CFO leads the Finance and Operational Services teams, including responsibility for all aspects of financial management and strategy, including directing finance and regulatory strategy, investor relations, ESG, treasury, financial planning, accounting, the controller's function, internal audit, risk management, business development, and regulatory compliance. The CFO is responsible for the financial sustainability of the Company and integration of climate-related risk and resiliency are imperative to long-term sustainability and financial management. The CFO reports directly to the CEO.

COO has overall responsibility for creating, planning, and integrating the strategic direction of the business including oversight of advancement of technology within operations to improve effectiveness. Climate-related responsibilities are assigned to this position because the COO is responsible for our operations meeting current/future capacity requirements and having the resiliency to withstand climate-related impacts. The COO reports directly to the CEO.

Chief Environmental & Safety Officer is responsible for Environmental Leadership and oversight of activities directly related to the management of climate-related risks. This includes the advancement of research and development, water quality, and technology to improve effectiveness; compliance with requirements in multiple media (including drinking water, wastewater, air, and waste), environmental stewardship, and oversight of the enterprise lab that analyzes over 80,000 drinking water samples per year; and helping to make certain that our operations meet current/future capacity, water quality requirements, and have the resiliency to withstand climate-related impacts. The Chief Environmental & Safety Officer creates policies and procedures that minimize risk and helps ensure the safety of a Company's employees. This includes enforcing regulations, overseeing all safety protocols, developing improved safety training, and performing root cause analysis of environmental and safety incidents. The Chief Environmental & Safety Officer shapes the organizational Safety and Environmental Leadership mission, vision, and targets for American Water's employees. This position reports to the COO.

Capital Program Management Committee (CPMC) - Each Regulated Business, as defined in C0.1, develops an annual, bottom-up capital business plan based on the infrastructure needs within its footprint. These plans are reviewed by the CPMC of the Regulated Businesses, rolled up and reviewed at the enterprise level for ultimate approval by the Board annually. After approval, these plans are administered by the individual engineering teams and governed by the associated regulated utilities and CPMCs, which meet monthly. Our Regulated Businesses' CPMCs include state presidents, engineering, operations, and finance leads, while the enterprise CPMC is comprised of, in part, by the CFO, COO, and VP Engineering. We utilize a long-term planning process as part of our Capital Program Management process to evaluate our water and wastewater systems for capacity, condition, and performance today and into the future. Our Comprehensive Planning Study (CPS) process evaluates a 15-year+ horizon to develop a system road map. The CPS process includes an evaluation of supply availability against projected customer usage growth; water treatment performance vs. projected changes to water quality standards and research information on contaminants of emerging concern; asset condition and performance vs. efficiency, safety, and obsolescence; and system reliability, resiliency, and climate variability impact assessments. We conduct numerous CPS studies each year, with systems evaluated on a rotating basis based on priority. The recommended CPS studies are integrated into the capital program management. The Company plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. This includes approximately \$1.2 billion to \$1.4 billion between 2022 and 2026 dedicated to resiliency within the Regulated Business.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	All employees', including Executive Leadership, goals are aligned for performance-based compensation on an annual basis.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Efficiency target	The Annual Performance Plan (APP) performance measures for 2021 reflected our primary objectives for financial performance, aligned with our core business strategies of Safety, Customers, People, Growth, and Operational Excellence. Each year a specific Operations and Maintenance (O&M) Efficiency goal is included within American Water's organizational goals and measures. Meeting or surpassing the O&M Efficiency goal supports American Water in achieving the APP Growth target. The O&M Efficiency goal is based on the ratio of adjusted regulated O&M expenses to adjusted regulated operating revenues. Additionally, it is a key performance metric because we want to focus on improving the overall cost structure of our Regulated Business, as defined in C0.1, and improving our return on equity. We meet our efficiency target through enhancements to customer service tools and technology for greater operational efficiency and by partnering with stakeholders to maintain customer confidence in the quality of our services. The operating efficiency targets can be tied to climate variability through optimal management of systems to control cost as well as reduce GHG emissions (i.e., energy demand), chemical dosage, and associated residual water generation. These efficiencies are also critical in helping to keep our costs affordable while at the same time investing sufficient capital to strengthen our water supply and infrastructure. The O&M Efficiency goal provides an indicator that can be used to assess operational performance. Attaining the O&M Efficiency goal is an important component of American Water meeting its APP Growth Objectives.
All employees	Monetary reward	Efficiency target	The APP performance measures for 2021 reflected our primary objectives for financial performance, aligned with our core business strategies of Safety, Customers, People, Growth, and Operational Excellence. Each year a specific O&M Efficiency goal is included within American Water's organizational goals and measures. Meeting or surpassing the O&M Efficiency goal supports American Water in achieving the APP Growth target. The O&M Efficiency goal is based on the ratio of adjusted regulated O&M expenses to adjusted regulated operating revenues. Additionally, it is a key performance metric because we want to focus on improving the overall cost structure of our Regulated Business, as defined in C0.1, and improving our return on equity. We meet our efficiency target through enhancements to customer service tools and technology for greater operational efficiency and by partnering with stakeholders to maintain customer confidence in the quality of our services. The operating efficiency targets can be tied to climate variability through optimal management of systems to control cost as well as reduce GHG emissions (i.e., energy demand), chemical dosage, and associated residual water generation. These efficiencies are also critical in helping to keep our costs affordable while at the same time investing sufficient capital to strengthen our water supply and infrastructure. The O&M Efficiency goal provides an indicator that can be used to assess operational performance. Attaining the O&M Efficiency goal is an important component of American Water meeting its APP Growth Objectives.
All employees	Monetary reward	Other (please specify) (Demonstration of Corporate Values)	The APP is designed to promote all employees in achieving annual business objectives by providing an opportunity to earn performance-based compensation tied to Company APP goals. The APP performance measures for 2021 reflected our primary objectives for financial performance, aligned with our core business strategies of Safety, Customers, People, Growth, and Operational Excellence. Nested within these core business strategies are goals related to water quality, environmental leadership, and environmental excellence. Our five core values of Safety, Trust, Environmental Leadership, Teamwork, and High Performance are the principles by which we work and live. American Water's core values reflect who we are as a company and what we mean to our customers, employees, communities, and shareholders. These principles guide our decisions every day, and they represent the foundation of our business culture. "Environmental Leadership", defined as "What" we do makes a difference in people's lives by providing an essential service. Clean water does not happen without Environmental Leadership, and just good stewardship of the environment is not sufficient for a water and wastewater services provider—we must be leaders. For APP purposes within the reporting year, Water Quality and Environmental Leadership accounts for 7.5% of APP and is determined by comparing our drinking water Notices of Violation and Maximum Contaminant Level Violation performance to the EPA national drinking water industry average and assessing how many times better we perform compared to the industry average. We are committed to providing high-quality services, protecting the environment, and maintaining our history of materially complying with, and in many cases, achieving results better than minimum standards required by applicable laws and regulations. All employees, including executive leadership, share the same aligned annual goals.
Corporate executive team	Monetary reward	Other (please specify) (Demonstration of Corporate Values)	The APP is designed to promote all employees in achieving annual business objectives by providing an opportunity to earn performance-based compensation tied to Company and individual performance. The APP performance measures for 2021 reflected our primary objectives for financial performance, aligned with our core business strategies of Safety, Customers, People, Growth, and Operational Excellence. Nested within these core business strategies are goals related to water quality, environmental leadership, and environmental excellence. Our five core values of Safety, Trust, Environmental Leadership, Teamwork, and High Performance are the principles by which we work and live. American Water's core values reflect who we are as a company and what we mean to our customers, employees, communities, and shareholders. These principles guide our decisions every day, and they represent the foundation of our business culture. "Environmental Leadership", defined as "What" we do makes a difference in people's lives by providing an essential service. Clean water does not happen without Environmental Leadership, and just good stewardship of the environment is not sufficient for a water and wastewater services provider—we must be leaders. For APP purposes within the reporting year, Water Quality and Environmental Leadership accounts for 7.5% of APP and is determined by comparing our drinking water Notices of Violation and Maximum Contaminant Level Violation performance to the EPA national drinking water industry average and assessing how many times better we perform compared to the industry average. We are committed to providing high-quality services, protecting the environment, and maintaining our history of materially complying with, and in many cases, achieving results better than minimum standards required by applicable laws and regulations. All employees, including executive leadership, share the same aligned annual goals.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	American Water tracks, monitors, and studies extreme weather events on an on-going basis and routinely takes action in this area to provide safe, reliable, and consistent water and wastewater services to our customers. We are also active in conservation activities with our customers, with an eye on the potential impact related changes in water supply and usage will have on our operations. We commit approximately \$2.5 billion to 3 billion annually to capital investment, and approximately 10-12% of our total capital investment, to increasing the resiliency of our systems.
Medium-term	1	5	American Water updates System Master Plans, through Comprehensive Planning Studies, for our water and wastewater systems at approximately 5 to 7 year intervals and implements many of the projects identified in these plans. Various other specific engineering studies and inspections may also be undertaken. American Water plans to invest between \$13 billion and \$14 billion over the next 5 years on capital improvements and growth from acquisitions in the Regulated Businesses. This includes approximately \$11.5 billion to \$12 billion for infrastructure improvements, of which \$1.2 billion to \$1.4 billion is dedicated to resiliency. Capital investment in part goes to projects that improve energy efficiency, enhance resiliency of our assets and facilities and enhance water treatment processes to maintain compliance with applicable environmental regulations.
Long-term	5	50	As part of the Comprehensive Planning work, American Water examines longer term climate-related impacts such as drought and flooding recurrence intervals, increasing storm intensity and related grid power outages, and the impact of heat/cold weather patterns on critical assets and water use. Where significant impact from climate-related droughts, flooding, sea level rise or natural disasters drive major capital improvement upgrade projects, the risks will be evaluated on a longer time period such as 25-50 years. The Company plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. This includes approximately \$1.2 billion to \$1.4 billion between 2022 and 2026 dedicated to resiliency within the Regulated Business.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Substantive financial risk is defined as anything \$50 million or more. Such risk is elevated to the Enterprise Risk Management Committee and managed using a heat map that defines risk by financial consequence and event likelihood. Three categories of substantive financial consequence are (1- Manageable) 0<\$50m, (2-Major) \$50 - \$100m and (3-Critical) >\$100m. Climate-related risks are evaluated as stand-alone, such as drought impacts on water supplies, and as cross cutting risks where non-climate-related risks, such as aging infrastructure, in combination with climate-related risks, such as flooding or increase threat of power outages, may amplify overall risk likelihood. Cross cutting risks may drive capital project investment decisions especially for facilities that have an expected service life of 25 or more years.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

Identification, assessment, and response to climate-related risks and opportunities are integrated into a multi-disciplinary company-wide risk management process. The risks and opportunities identified by this process are reviewed several times a year. This process provides value to our direct operations and customer service through reliability and business continuity. It also provides value to our organization in terms of differentiation from competitors. As stated in our 2021 Annual Report, our capital investments, including those targeted for climate resiliency, not only significantly contribute to the local and regional economies, but they also improve the environmental footprint of the systems we own. This approach to risk management is a disciplined process that includes the Company's Asset Management, Comprehensive Planning, and Enterprise Risk Management processes. Short, medium, and long-term time horizons (0-50 years) are examined. Identification and assessment are performed via the Asset Management and Comprehensive Planning process that incorporates various tools including water and wastewater system master plan studies (typically every 5-7 years), AWWA J100 risk and resiliency assessments (every 5 years), and annual specialty engineering studies that may include use of hydraulic models, pipeline condition assessment studies, and other evaluations. Climate-related policy risks are also identified through our government affairs and environmental compliance oversight processes. Response is then managed through the Company's annual capital program, the Enterprise Risk Management (ERM) program, and ongoing business continuity efforts. American Water's Capital Investment Program (CIP) includes an Asset Risk Assessment and Management process to track and respond to the most significant potential risks, including climate-related impacts. Asset risk registers are compiled at an individual state level and rolled up into company-wide view. Risks identified through the Asset Management and Comprehensive Planning steps are recorded and tracked on the Asset Risk Registers. This enables management to take actions to mitigate potential risks to direct operations and service delivery. Mitigation of potential asset risks is through the CIP and refinements to emergency response and business continuity plans. The Company is implementing a Climate Impact Checklist as part of capital project planning to further guide adaptation or mitigation of potential climate risk. At an executive level, risk mitigation steps are reviewed at least twice a year with senior leadership and include discussion of how present and future operational risks are being addressed. The risks from natural disasters and climate variability are specifically reviewed by the Company's ERM Committee each year and presented at least annually to the Board of Directors. Substantive financial risks are elevated to the ERM Committee and managed using a heat map that defines risk into three categories, as described in C2.1b. The heat map plots risk by substantive financial consequence and likelihood. Non-climate-related risks combined with climate-related risks can result in the need for higher priority mitigation efforts. Climate risks evaluated may include increased storm severity and frequency; duration of power outages; changes in precipitation trends impacting stream flows, aquifer recharge, flood and drought occurrences; water quality impacts due to shifting temperature patterns; increased rainfall runoff intensity; and other natural hazards. Opportunities, such as flood resiliency, changes in treatment technology, and improved energy efficiency are also identified through this process. Potential risks to direct operations, service delivery, environmental compliance, safety, and financial performance are assessed, logged and tracked on risk registers. Below are examples of climate-related physical and transitional risks that have the potential to impact American Water. Physical Risk/Opportunity: Situation: Hurricanes can bring significant rainfall and cause localized and regional flooding. Task: A Comprehensive Planning Study in New Jersey identified the risk of more intense flooding and the need to increase flood protection at a critical water treatment plant in central New Jersey, serving over 1 million people. Action: The Company undertook a multi-year project to build a new floodwall at the Raritan Millstone Water Treatment Plant upgrading the existing floodwall. The improved flood protection was placed into service in 2018. Result: The benefit of investing in resiliency projects was realized in the aftermath of Tropical Depression Ida, when New Jersey American Water reported that all its operating areas successfully withstood widespread flooding. Specifically, the Raritan-Millstone Water Treatment Plant, which was fortified with a \$37 million flood protection project in 2018, withstood a record flood and continued to provide potable water supply. Transitional Risk/Opportunity: American Water owns and operates water and wastewater systems in 14 states. Federal, state, and local building codes and design standards are evolving, but there is not a common climate scenario model adopted by regulators for projecting future incidents, nor are downscaled models available everywhere. Despite this, the Company takes a proactive approach in its facility design to address the impact of more intense precipitation, flooding, drought, and other climate impacts even where state or local codes are based only on historic climate. If jurisdictions adopt more stringent codes or standards after infrastructure project scopes have been designed but prior to construction, then project scope, costs and durations may need to change. This could impact other business processes such as supply chain contracts and environmental improvement schedules. Situation: State and local codes have inconsistent flood protection rules. The Company carries various property, casualty, cyber and financial insurance policies with limits, deductibles, and exclusions that it believes are consistent with industry standards. Annual policy renewals can be impacted by claims experience which in turn may impact coverage terms and conditions. Task: American Water is updating its engineering standards for climate impacts from increased precipitation and flooding threats. Action: American Water worked with its property insurance carrier, Factory Mutual Global (FMG), to identify potential threats from 500-year storm events. Many state and local building codes continue to be based on 100-year storms that do not align with the Federal guidance for flood protection for critical assets. Result: In 2021, American Water worked with FMG flood specialists to develop improved and specific flood emergency response plans for over 20 facilities with potential exposure during a 500-year flood incident.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Water utilities operate in a highly regulated environment. Federal, state, and local regulations set various water quality and quantity standards. The ability to meet current standards can be influenced by climate-related risks. Potential risks are identified in the short-, medium-, and long-term through the Company's Asset Management and Comprehensive Planning processes and are tracked using a risk register. If the potential risk reaches a level of substantial financial impact, the risk is elevated through the Enterprise Risk Management (ERM) process to the Safety, Environmental, Technology & Operations (SETO) Committee. Our assessments systematically analyze and identify potential risks including changes in water supply quality and quantity, flooding, power outages, and changes in water usage patterns. Failure to meet current regulations could result in a variety of repercussions including service interruptions, reputational, financial, and permit related violations. An example of this specific risk type is program related to current Pennsylvania regulation on dam safety. Situation: Dam Safety and Waterway Management, Chapter 105 regulations, which is a comprehensive regulation of dams, reservoirs, water obstructions and encroachments in the Commonwealth to protect the health, safety, welfare and property of the people. Task: Dams must be assessed for peak flows that have a low likelihood of occurring but can have a significant impact on the dam operation. Action: American Water has a dam management and inspection program and dedicates a portion of its annual capital improvement budgets to continually rehabilitating and upgrading dams. Result: Regulations regarding dams and other waterway management approaches are relevant as climate variability influences water systems and supply. The 2018 Scranton Lake dam project, which cost approximately \$10 million included modifications to the current spillway, provided additional capacity to meet this regulation. The Company's dam management plan includes long-range, multi-year upgrade project plans.
Emerging regulation	Relevant, always included	Environmental and consumer regulations governing water quality, water quantity and utility service continue to become more stringent over time. Climate-related risks are beginning to be recognized in emerging regulations. Emerging regulations related to asset management, in part, begin to recognize the cross-cutting impact of climate impacts on aged infrastructure. Similar to risks related to current regulations, potential risks related to emerging regulations are identified in the short, medium and long-term through the Company's Asset Management and Comprehensive Planning processes. These are tracked using a risk register and if the potential risk reaches a level of substantial financial impact, the risk is elevated through the ERM Committee to the SETO Committee. Our assessments systematically identify and analyze potential risks including changes in water supply quality and quantity, flooding, power outages, and changes in water usage patterns. Justification for including emerging regulation into our climate-related risk assessments is that failure to do so could result in a variety of repercussions including service interruptions, reputational, financial, and permit related violations. Situation: The America's Water Infrastructure Act and the 2018 Pennsylvania Administrative Code amendment (Section 109.708a) are directly applicable to American Water's systems resiliency programs. These new rules have multiyear certification deadlines through 2021 and 2022, respectively. Failure to comply with these new rules could result in fines. Task: Since 2019 and continuing through mid-2021, American Water had been undertaking risk and resiliency assessments for its water systems per the AWIA regulation. In Pennsylvania, the Company is developing USSPs (uninterrupted system service plans) through 2022. Action: Risks identified, including those related to climate impacts, are being logged in the risk register and mitigation/adaptation plans are being developed where needed. Result: The risk and resiliency assessments and the USSP plans assist American Water in tracking risks, including those related to climate, so that we can continue to provide reliable service to our customers.
Technology	Relevant, always included	American Water deploys water treatment technology to provide water and wastewater services to our customers. Technology is chosen based on a range of source water conditions that can vary with temperature and precipitation levels. To assess this risk of changing source water quality, which could be exacerbated by climate variability, we deploy technology for monitoring water quality through the treatment process. These risks are identified through our Asset Management and Comprehensive Planning processes, risks are logged on risk registers and if the risks rise to substantive financial risk, the risks are elevated through the ERM Committee to the SETO Committee. For example, algal blooms are seasonal events for surface waters and are affected by temperature and precipitation levels. The EPA provides guidance and best practices on monitoring and planning for cyanotoxin algal blooms. Situation: Algal growth in reservoirs and rivers can be influenced by temperature and rainfall patterns. Treatment for algal blooms requires higher chemical usage rates. Task: American Water manages water quality in reservoirs to understand its treatability for drinking water supplies. Action: American Water participates in external collaborations to remain at the forefront of regulatory and monitoring strategies. Our staff are members of the technical advisory work group for Safe Drinking Water Act processes and New Contaminants of the American Water Works Association, which review and monitor Federal guidance on cyanotoxins and harmful algal blooms. Result: In response to these emerging concerns, we identify and evaluate technologies to detect and control algal blooms, as well as technologies to remove cyanotoxins. For example, floating solar mixers installed on a reservoir in Pennsylvania in 2019 realized a reduction in chemical coagulant usage by over 10% in 2020 due to improved raw water quality. Based on this successful deployment, the Company also installed solar mixer units in two other reservoirs in 2020. Additionally, by utilizing solar energy to run the mixers, there is no increase in electrical consumption or GHGe. As is typical of technology projects, there comes potential risk that the anticipated savings may not be achieved, or the life cycle cost may exceed the realized value. Strong identification of the value of the technology is needed to assist in the regulatory rate recovery process. These risks are considered when assessing technology options.
Legal	Relevant, always included	Our ability to meet the existing and future demand of our customers depends on the availability of an adequate supply of water and the amount of treatment required to meet quality standards, some of which are impacted by climate variability (e.g., harmful algal blooms). Not only can failure to deliver impact reputation and customer satisfaction, it can involve elevated legal risk from increased litigation activity. Risks are included in the ERM process and risks with potential substantive financial impact are raised to the SETO Committee. Additionally, as projects (e.g., GHG reduction, efficiency, loss water) are identified, there is a risk of capital expenditures and therefore recoverable cost may not be fully recognized and may require legal interaction with regulatory commissions. As a general rule, sources of public water supply, including rivers, lakes, streams and groundwater aquifers, are held in the public trust and are not privately owned. As a result, we typically do not own the water that we use in our operations, and the availability of our water supply is established through allocation rights (determined by legislation or court decisions) and passing-flow requirements set by governmental entities. Passing-flow requirements set minimum volumes of water that must pass through specified water sources, such as rivers and streams, to maintain environmental habitats and meet water allocation rights of downstream users. The ability to meet passing-flow requirements in the future is an example of a climate-related risk that could be subject to fines or legal review. Changes in precipitation may impact source water availability, as well as water quality, and are considered in our Master Planning process. The long-term supply planning is used to identify, mitigate, and adapt to this risk including where complying with permit or legislative conditions would pose a legal risk as well as an environmental, regulatory, or service risk.
Market	Relevant, always included	The potential market risks related to climate impacts may include long-term costs to address increased volatility in weather impacting water use patterns, source water availability, and source water quality. When new water supplies are to be considered, the evaluation of alternative projects can be impacted by market forces such as the cost of property acquisition, the reliability and cost of energy supply, and waste disposal options. To manage this risk, we recognize potential climate-related risks in both our water supply and water demand management activities. On the supply side, we prepare/update drought management plans and supply safe yield studies, monitor water supply availability, implement pipeline upgrade projects to reduce leakage, and perform Master Plans as discussed in C2.2. On the demand side, we issue general customer education materials for wise water use/water efficiency on our website and social media accounts as well as bill inserts to educate customers. We also work with regulators on issues related to conservation. For example, in California, we have posted specific programs, including joint partnerships, for customers to learn more about the variety of water-saving resources available, including free classes, services, rebates, conservation tips. These efforts will help us meet the new California Conservation Framework designed to implement long-term conservation standards. The Framework was signed into law by Governor Brown and sets water use efficiency standards for indoor and outdoor urban water use to be effective by 2022. These market risks are incorporated into our short- and long-term Capital Planning Processes and failure to mitigate these risks may impact organic growth within our footprint impact.
Reputation	Relevant, always included	Integrating environmental, social, and governance ("ESG") policies and practices into our daily operations, particularly related to energy use and emissions, emphasizes our belief that the only way to do business is to do it responsibly, and that the "How" is just as important as the "What" for long-term financial sustainability. Justification for including reputation into our climate-related risk assessments is that we are a public water and wastewater utility that provides services to over 14 million people. Reputation is imperative in our business as customer confidence is critical. Reputational risk within our current footprint, such as failure to meet demand, meeting water and wastewater quality standards and major asset failure are considered in the asset management risk assessment process to identify those risks that pose high consequence and likelihood. Likewise, our water efficiency measures, such as non-revenue water volumes, are of interest to state regulators. Risks are included in the ERM process and risks with potential substantive financial impact are raised to the SETO Committee. We participate in national policy and best practice committees as the leading water and wastewater provider in the nation. Our reputation cultivates our continued growth and we pride ourselves on being a solution provider to distressed water and wastewater systems, seeking to improve quality and services for the benefit of our customers. An example of an action taken in our New Jersey operations includes the installation of over 8,250 hydrant-mounted acoustic leak detection caps that listen for water leaks and help proactively identify leaks. One specific operational area realized a water loss decrease of over 40% between 2015 and 2021. New Jersey's leak detection efforts are part of a routine water efficiency program for that state and has been shared as a best practice across the industry through conference presentations and panel participation. The proactive implementation of best practices in water efficiency is a component of our reputation in sustainability and customer service and is important to communities and regulators.
Acute physical	Relevant, always included	American Water's ERM process includes examining acute physical risks including those associated with acute physical impacts. Potential risks are logged in the system risk register and where there is a potential substantive financial risk, it is raised to the SETO Committee. Examples of acute physical climate risks that have influenced American Water's risk assessments include numerous extreme events in the past few years such as Hurricane Ida, Hurricane Irene, Superstorm Sandy, the Joplin, MO service area tornado, and periodic flooding along the Mississippi River. These events have provided key lessons learned that drive our current resiliency projects as well as emergency plan enhancements. Events of this level are discussed at the SETO Committee level, as is the need to continue to invest in increasing our system resiliency against extreme weather events. Justification for including acute physical risk into our climate-related risk assessments is critical to providing reliable operations during future events. For example, events have highlighted the need to collect accurate spatial data using the Global Positioning System (GPS) for locations of valve and service assets to allow for access and exercise these valves during and after extreme weather events. A pilot to locate and GPS tag customer curb valves was executed shortly before Superstorm Sandy and proved invaluable in locating and shutting off leaking services and minimizing system impacts. Since that time, the Company has implemented new standards to capture GPS locations for new assets such as valves, service laterals, meters, and hydrants.
Chronic physical	Relevant, always included	American Water's risk management process also examines chronic physical risks. These risks are captured on the system risk register, reviewed at least twice per year by company leadership and if posing a substantive financial risk, it is raised to the SETO committee. In many cases, these risks can be mitigated through the capital investment program such as with the development of new supplies or construction of a new facility to replace an aged facility that has reached the end of its useful life. Justification for including chronic physical risks, including long term shifts in climate patterns that could lead to sea level rise or precipitation changes is needed to provide safe, reliable, and consistent water and wastewater services to all customers. For example, chronic physical risks that could lead to future droughts or changing precipitation patterns have the potential to impact some of American Water's service areas. In response to these risks, American Water built a reservoir to store a backup water supply for the town of Bel Air in Maryland. The project was designed to hold 90 million gallons of water taken from the nearby Winters Run stream, enough for a 100-day supply for the treatment plant. The project was the result of discussions among the town, county, and Maryland Department of Environment regarding the need to have a backup water supply for the town in the event of a drought or disaster that contaminates the stream. This project demonstrates water sustainability and is a model for meeting the water supply needs of customers and their community.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Changing precipitation patterns and types (rain, hail, snow/ice)
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Primary potential financial impact

Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Severe weather and natural hazard events can impact direct operations and have the potential to cause interruptions to water service, reduced service levels and damage to operating assets. Climate variability predictions from NOAA's US Climate Resilience Toolkit, if realized, will increase the likelihood of an operational impact and may require additional investments to further enhance resiliency. Potential challenges to our water and wastewater utilities are being monitored and assessed during our Comprehensive Planning process, including: • Increasing or changes to precipitation patterns (majority of service areas in mid-west, northeast/mid-Atlantic and southeast states, and CA) • Sea-level rise (service areas in Atlantic and Pacific coastal areas including NJ, VA, CA) • Increasing heat waves (majority of service areas in mid-west, northeast/mid-Atlantic, southeast, CA) The associated impacts to direct operations from these challenges may vary by region and include the following: • More frequent voluntary or mandatory water use restrictions to manage available water supplies during extreme heat waves • Increased duration of droughts could diminish the quality of raw water in surface water supplies resulting in increased treatment costs • Extended disruptions of the power grid which may disrupt water or wastewater service and require increased use of standby generators • High-intensity precipitation events that may negatively impact our source waters requiring additional treatment • Warmer summers may result in increased frequency and duration of algal blooms, increasing treatment costs • The long-term implications of sea-level rise are significant as vulnerable facilities are likely to see increased flooding, thereby requiring a hardening (e.g., flood walls, elevated mechanical systems, etc.). Sea-level rise can also impact the ground water aquifers used for water supplies in our coastal service areas in NJ, VA, and CA, through saltwater intrusion, which can raise the cost of water treatment • Increased precipitation could increase the risk of facility flooding causing potential outages or equipment damage, and increased cost to repair damaged facilities. Solutions to mitigate this potential risk include siting new facilities further away from flood areas or at higher elevations. Case studies from New Jersey and Iowa provide recent company-specific examples of hardening assets with an elevated flooding risk/consequence profile

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1500000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Severe weather conditions, climate variability patterns, or natural disasters have the potential to damage American Water equipment and facilities, which could adversely affect our financial condition and operations. Because of the uncertainty of weather volatility related to climate variability, we cannot predict with certainty the potential impact on our business, financial condition, operations, cash flows, and liquidity. An estimated potential financial impact figure of \$1,500,000,000 represents a portion of the total asset value for all treatment and pumping facilities (\$6,048,000,000). This portion was determined by calculating an average depreciated asset (unit) value of \$2,500,000 (\$6,048,000,000/2,420) for each of American Water's 2,420 treatment and pumping facilities. This unit value was then applied to the approximately 600 facilities located in proximity to FEMA flood zones (600 facilities*\$2,500,000/facility) to yield a potential financial impact figure of \$1,500,000,000. A more granular analysis related to potential financial impact figure has not yet been completed; however, the figure presented above likely represents a low-end estimate due to: • The unit value above likely underestimates the asset value of water and wastewater treatment facilities, while overestimating the asset value of water and wastewater pumping stations. Most of the facilities located in proximity to FEMA flood zones are treatment facilities. Therefore, it is expected that the unit value for the 600 facilities of note exceeds \$2,500,000. • The depreciated asset value of these facilities does not represent the asset replacement cost. The replacement cost provides a more realistic estimation of impact from partial or total asset loss due to climate-related flooding impacts. As a result, the average unit cost to completely replace a facility asset is expected to exceed \$2,500,000. • The financial impact figure does not include other potential indirect costs (e.g., event response, service interruptions, damage to non-facility assets, etc.). Potential financial impact will vary, both individually and in aggregate, based on geographic location, facility, and climate-related risk. A more granular estimation for potential financial impact cannot be provided at this time; however, these estimations may be improved as American Water continues to expand its utilization of physical scenario analysis to better identify risk, mitigating actions, and potential outcomes.

Cost of response to risk

750000000

Description of response and explanation of cost calculation

The cost represents a mid-point estimate of the potential long-term impact (50-year) to harden facilities located in proximity to FEMA flood zones. This estimate assumes that the base flood elevations of our facilities may rise, potentially requiring upgrade or relocation. Cost would be site-specific and dependent on the exact project undertaken. The flood hardening work was estimated to range from \$5 million to \$20 million per facility for approximately 600 facilities, resulting in a total cost of \$3 billion to \$12 billion, with a mid-point of \$7.5 billion. The mid-point estimate was used for the cost of response. [Cost = (Number of flood-prone facilities) * (Estimated mid-point - flood hardening cost)]. The actual cost to harden individual facilities may differ from this estimate. The unit cost range is based on raising critical equipment (min) to building flood walls (max). The estimate aligns with the costs associated with recent projects from New Jersey and Iowa. Situation: Without mitigation and adaptation plans, climate risks may impact American Water's ability to provide safe and reliable service to its customers. Flooding and other climate-related events are increasing in frequency, posing a risk to American Water. Task: American Water is tasked with addressing risks posed by aging infrastructure and the impacts of climate variability to improve the resilience of critical assets and continue to provide safe and reliable water and wastewater service to customers. Action: American Water plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. This includes approximately \$1.2 billion to \$1.4 billion between 2022 and 2026 dedicated to resiliency within the Regulated Business. In New Jersey, the Raritan-Millstone Treatment Plant underwent an enhancement project that raised the current flood wall and berms to provide protection from 500-year storm events. Another example of how these resiliency projects help protect treatment facilities is the flood wall built at the Davenport Water Treatment Plant in Iowa. Since their installations, both facilities have seen minimal impact to direct operations from high-intensity rainfall events. Result: The result of these projects, and the other capital investments made by American Water is improving the reliability of water service to customers. These actions will also result in increased resilience of American Water's assets.

Comment

Service interruptions caused by severe weather conditions, climate variability patterns or natural disasters may disrupt operations or reduce the demand for water and wastewater services, which could adversely affect our financial condition and operations. Because of the uncertainty of weather volatility related to climate variability, we cannot predict with certainty its potential impact on our business, financial condition, results of operations, cash flows, and liquidity. Although some or all potential expenditures and costs with respect to our Regulated Businesses, as defined in C0.1, could be recovered through rates, infrastructure replacement surcharges or other regulatory mechanisms, there can be no assurance that state PUCs would authorize rate increases to enable us to recover such expenditures and costs, in whole or in part.

C2.4**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

C2.4a**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.****Identifier**

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced direct costs

Reduced operating costs including energy costs and thus greenhouse gas emissions (e.g., through efficiency gains and cost reductions)

Company-specific description

American Water's assets as of December 2021 included 52,500 miles of pipe, 560 water treatment plants, 160 wastewater treatment facilities and thousands of wells, water storage facilities, and pumping stations. Managing these assets and promoting efficient operations are keys to American Water's business—both within our own operations and our customers'. In 2021, American Water announced three Environmental Goals to enhance resource efficiency in the areas of energy and emissions, water efficiency, and resiliency. For water efficiency, our goal is to continue to meet customer needs while saving 15% in water delivered per customer by 2035 using 2015 as the baseline. The water efficiency driver is about using this precious resource wisely, especially with climate predictions of increasing risks associated with drought duration and frequency. By harnessing technology to help reduce waste and aligning regulations to drive water efficiency, water's vital benefits to society can be maximized today and for future generations. We believe this focus can help foster more sustainable communities to support economic growth and resiliency and help preserve limited freshwater supplies. In addition, this focus can help control potential increase to operating costs (less water means less power and less chemical use) while enabling growth. American Water's strategy is multi-faceted and includes increasing the deployment of new technologies by 2035 to provide early detection of leaks or other end use efficiencies; increasing the efficiency of water infrastructure; and educating customers. These are our greatest opportunities to reduce environmental impacts while also saving money. Water and energy efficiency measures reduce operating costs, energy consumption, greenhouse gas emissions, the need for water infrastructure expansion, and demand on the U.S.'s limited water supply – all benefiting our customers by helping keep rates affordable. Implementing proactive asset management practices to replace aging infrastructure, install advanced metering and water efficiency enabling technology as well as educating customers on their water use are building blocks for the success of the Company's Environmental Goals for water efficiency, and energy and emissions. The Company has included this strategy in its capital planning process.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

609000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Several assumptions were made in the calculation of the potential financial impact figure, including:

- The figure was calculated using enterprise-level data. The water efficiency goal was developed based upon forecasted water use per customer for each customer class. This includes the national water efficiency trend, the continuation of current American Water programs, and utilization of future innovation and technology in our footprint. Water efficiency program savings were applied globally to the customer base. Actual savings will vary based upon each of American Water's Regulated Business' current water consumption and loss patterns, growth, and acquired water system's persons per household and levels of efficiency. The forecasted water efficiency goal yields a cumulative lifetime water savings of 230,000 gal/customer.
- The calculation was simplified by assuming American Water's customer count remains static. American Water anticipates a customer growth rate of 55,000 to 85,000 per year. Water customer growth could increase our base estimate of savings. Additionally, the timing of the customer growth within the lifespan of the goal impacts the potential savings expected to occur by 2035.
- The resulting figure is based on production costs only and used an enterprise average of 0.81/kgal. It is expected that the cost to produce water will also increase over time, in part due to climate variability. The cost savings associated with American Water's water efficiency goal was calculated by multiplying the current cost to produce water (\$0.81/kgal – per American Water's YE 2021 10k) by the cumulative lifetime water savings per customer to achieve the goal of 230,000 gal/customer from 2015 to 2035 (taken from the forecasted trend analysis used to develop the goal). This result is then multiplied by the total number of customers (3,269,000 customers) reported in the YE 2021 10k. That is, $(\$0.81/\text{kgal}) * (230 \text{ kgal}/\text{customer}) * (3,269,000) = \609 million . Note: Actual savings will vary based upon growth and acquired water system's persons per household, levels of efficiency, among other variables.

Cost to realize opportunity

30000000

Strategy to realize opportunity and explanation of cost calculation

Situation: American Water's asset management strategy recognizes the opportunity to deploy more advanced technology to support resource efficiency that will be needed to address future climate-related risks to water supplies. The cost to realize this opportunity is estimated to require around \$30,000,000 investment in the deployment of improved leak detection, pipe monitoring equipment, and strategically implemented demand side efficiency measures across our footprint. Task: In upgrading facilities and deploying new technology, it is important to identify and select more efficient products and look to future opportunities and climate-related risks. Action: American Water uses multiple approaches to achieve improvements including:

- Technology: We strive to reduce water losses by using technologies including improved metering systems, a smarter water grid, pressure management, and leak detection programs. For example, operations in New Jersey utilize 8,250 acoustic leak detection nodes to help proactively identify leaks, with 3,600 nodes installed in a single operational area.
- Customer Conservation: We encourage customers to conserve water through programs such as tiered-rate structures, water efficiency kits/rebates, water-saving tips on our digital platforms. For example, California American Water has dedicated water conservation staff members, trained in many facets of water conservation and are a valuable resource for all stakeholders.
- Internal Governance: American Water's non-revenue water (NRW) practice provides reporting guidelines, terminology, and supporting information to help accurately record, report, and retain NRW data. Accurate, reliable water system reporting for NRW is critical to documenting operations, financial disclosure, budget process, managing customer needs, tracking growth, capacity planning, and marketing. Result: Considering the New Jersey leak detection example from above, the operational area realized a water loss decrease of 40% between 2015 and 2021. This corresponds to an increase in O&M efficiency, as operations can meet the same customer demand by treating and pumping less water. This case study was extrapolated to project a possible long-term cost related to deploying more advanced leak detection across American Water's footprint by 2035. This cost was cited to maintain consistency with the financial impact figure reported above.

Comment

Water use and efficiency is key to American Water's business—both within our own operations and for our customers'. Optimizing water use, investing in technologies to prevent leaks and improve water efficiency, increasing the efficiency of water infrastructure, and educating consumers are our greatest opportunities to reduce environmental impacts while also saving money. Water efficiency measures reduce operating costs, energy consumption, greenhouse gas emissions, the need for water infrastructure expansion, and demand on the planet's limited water supply – all benefiting our customers by helping keep rates affordable.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

No, our strategy has been influenced by climate-related risks and opportunities, but we do not plan to develop a transition plan within two years

Publicly available transition plan

<Not Applicable>

Mechanism by which feedback is collected from shareholders on your transition plan

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

Attach any relevant documents which detail your transition plan (optional)

<Not Applicable>

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Last year, as American Water came closer to achieving its current goal, we began the process of evaluating new GHG emissions targets. This evaluation is well underway by a large, cross-functional team, and is running in parallel with our annual planning process. They are focused on diligent study and analysis, including the potential addition of Scope 3 emissions and potential alignment with the Paris Agreement. The team expects to present its findings and recommendations to Management and the Board later this year.

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios	RCP 6.0 Business division	<Not Applicable>	Our Master Plan development assesses system needs on at least a 15-year horizon. Some studies extend to a longer time. For a New Jersey sea-level rise study, we used the years 2030 and 2070 for the two planning horizons selected: 2030 provided a nearer-term target that can easily be incorporated into existing planning horizons, while 2070 provides a longer-term alignment with the life expectancy of built infrastructure and a longer-range forecast on shifts in climate. Situation: American Water performs Comprehensive Planning Studies with Risk and Resiliency assessments which incorporate climate-related scenario analysis. Task: Use information from climate model scenarios where applicable to identify and select facility upgrade projects. Action: American Water performed a sea-level rise (SLR) impact study in New Jersey using available Light Detecting and Ranging (LiDAR) topographic data, created a GIS base map of the facility and superimposed the Federal Emergency Management Agency (FEMA) flood mapping data. This coastal facility was selected for the assessment due to its critical operation and vulnerability to flooding. We compared the FEMA mapping with other inundation mapping layers available from National Oceanic and Atmospheric Administration (NOAA). This information was used to identify the extent of flooding under different scenarios (category 1 and 2 hurricanes plus SLR) and time horizons (2030 and 2070). Precipitation and temperature scenarios were based on the regional information gathered from the National Climate Assessment and other climate variability planning studies that have been conducted on a state-wide scale in New Jersey. The National Weather Service Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model was also used to model storm surge. We examined temperature increases projected under RCP 2.5, RCP 6, and RCP 8.5. In each component of the analysis, we bracketed the impact to low- and high- impact scenarios. Result: The SLR study in New Jersey was used to develop a long-term plan for the facility assessed. Immediate/short-term improvements were identified, and a long-term strategy was developed. The long-term strategy includes expanding facilities outside of the area of concern to reduce the critical dependence on this facility. The Comprehensive Planning work identifies needed system improvements, which drive financial planning and business strategy.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

To date: How will these climate-related impacts vary geographically across American Water's footprint? What facilities and assets encompass the greatest climate-related risks or opportunities? Additional questions for future consideration: How will climate variability impact American Water financially and operationally? How should American Water's design standards change to mitigate climate-related risks? How can American Water's capital planning efforts better incorporate outcomes of climate-related scenarios?

Results of the climate-related scenario analysis with respect to the focal questions

American Water is examining projected changes in precipitation in the regions where we have facilities in existing flood prone areas and current marginal zones. We have been enhancing flood emergency response plans for these facilities and will factor the increasing risk into future upgrade plans as warranted. The New Jersey case study cited in C3.2a provides an example of how the results of the scenario analysis were integrated into operational and financial planning. Furthermore, the example scenario analysis provided valuable data to support the construction of a flood wall at New Jersey's Raritan-Millstone Treatment Plant as noted in C2.3a. American Water continues to gather information to address the questions listed above. We continue to follow climate science modelling to develop better ways of understanding the impacts from increasing storm intensity, as well as other climate-related risks and impacts. These studies will continue to influence where we build new facilities and how the facilities are designed.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	American Water is committed to providing safe and affordable water and wastewater solutions to our customers. Since climate-related impacts vary throughout the American Water footprint, we factor in specific short-, medium- and long-term climate-related risks and opportunities into Company strategy and new service-related initiatives. For example, the Company regularly considers within its business strategy the impact of severe weather events, heat events, and drought events on services to our customers. In the short- and medium-term, we are also developing additional water supply in areas impacted by droughts, and we recently expanded our laboratory capabilities for cyanotoxins which satisfies an anticipated analytical need in the future due to warmer temperatures. For long-term impacts, we continue to review our engineering standards to better incorporate climate models in planning and design work for future facility designs. Situation: Rivers and water supply reservoirs are important sources of water supply for numerous American Water service areas. Medium- and long-term impacts to air temperatures and rainfall patterns may contribute to the growth of harmful algal blooms that produce cyanotoxins in rivers and reservoirs, and ultimately impact the quality of drinking water and the continuity of water service. Task: American Water's enterprise laboratory (Central Laboratory), located in Belleville, Illinois, developed a plan to address this potential need through new lab equipment and established expanded service to monitor for cyanotoxins in water supplies. Action: American Water Central Laboratory and our labs in Pennsylvania, West Virginia and New Jersey purchased laboratory equipment and trained staff to perform routine analyses for this expanded effort. Result: American Water labs installed these instruments in 2018-19 to improve accessibility and timeliness of cyanotoxin analysis.
Supply chain and/or value chain	Yes	The mission of the American Water supply chain is to help the Company's operating units achieve improved total value from purchased goods and services. We partner with suppliers with specific goals in mind, such as: (1) Enabling Innovation, (2) Reducing Costs, (3) Promoting Sustainability, and (4) Supporting Diversity. The Company recently updated its engineering planning standards related to the recommended service level during a loss of utility power and the recommended pumping capacity under standby power (generators). Recognizing the impact of climate variability on the potential for utility power outages, the Supply Chain function has assisted the Company over the last 5 years to procure additional standby power generators, various mobile pumping equipment, and establish generator fuel supply contracts. Situation: Significant events exacerbated by acute physical climate-related risks have influenced American Water's value chain in the past, namely Superstorm Sandy. These events are also becoming more frequent and are anticipated to potentially impact American Water's business into the future. Task: American Water plays a key role as a provider of water and wastewater services and seeks to maintain power so that it may continue to provide services to its customers during these times. Action: American Water has established agreements with some of its national and regional fuel suppliers to be identified as a priority customer during such natural disasters. Result: Due to these agreements, American Water is now better prepared to continue to provide its services when impacted by natural disasters in the future.
Investment in R&D	Yes	R&D activities designed to improve the customer experience have been influenced by climate-related opportunities that may reduce greenhouse gas emissions (GHGe). American Water is developing tools to allow for utilization of data to streamline customer driven work activities in an efficient manner, which will also reduce the amount of drive time thereby reducing our vehicle carbon footprint. Additionally, our R&D group is also looking to leverage Artificial Intelligence (AI) and the various sources of data, both internal and external to assist in identifying changes in raw water quality impacted by increased rainfall and flooding events. The development of AI that is tied to real time data may allow for future predictive analysis of climate variability events which can be used in resource planning. Investment in R&D as it relates to water quality: Our R&D team is dedicated to researching water quality and technology, water source monitoring, and collaborating with water research foundations. We continually investigate new substances to identify water supply threats, act on emerging regulations and new health advisories, and evaluate the benefits of alternative/advanced treatment technologies. Some of these threats are related to climate variability. Situation: Increased temperatures and precipitation frequency and duration can impact water quality in rivers, streams, and reservoirs. Task: American Water utilizes surface waters and reservoirs for many drinking water supplies. Monitoring our sources of supply for potential contaminants is a core activity. Action: To better understand contaminants of emerging concern, we equip our Central Laboratory with state-of-the-art technologies for measuring water quality constituents. We strive to identify and manage new contaminants of concern before regulations go into effect through operational solutions and/or capital improvements. Result: Our research lab differentiates us from our peers, with in-house experts who hold relationships with federal and state governmental, industry, and environmental groups. We also adopted an innovative method to compile and update contaminant information for drinking water sources. As it relates to source of supply, the GIS map-based tool, WaterSuite, collects information about potential sources of contamination from various data sources and pulls it into a single database.
Operations	Yes	In 2021, American Water clarified our existing goal: to reduce absolute scope 1 and scope 2 GHG emissions by more than 40% by 2025 from a 2007 baseline. Replacing inefficient equipment is part of the Company's strategy to improve overall efficiency, enhance resiliency, and reduce GHGe. A major focus for our operations is the planned maintenance and replacement of large pumps. Ninety percent of our own electricity consumption is from pumping water. As the pumps age, they become less efficient, requiring more energy to move the same amount of water. In addition to pump efficiency, the following activities improve operational efficiency: advanced metering infrastructure, a smarter water grid, infrastructure renewal, increased focus on leak detection programs, and improved pressure management. Situation: As mechanical equipment ages, the level of maintenance increases and the equipment can become less efficient. Similarly, as buried infrastructure ages, proactive preventative maintenance becomes increasingly important to minimize non-revenue water. Task: Strategically mitigate the risk of increased cost of raw materials by continuing to make needed infrastructure investments while implementing operational efficiency improvements that minimize resource input demands while keeping customer bills affordable. Action: American Water has many ongoing programs to improve water and energy efficiency. These programs include pump rehabilitation/replacement, water and sewer main replacements, water loss management programs, and the construction of new water storage tanks. Example case studies include a large pump replacement project in Kentucky and a proactive leak detection program in New Jersey. Result: Efficiency gains are achieved in each program. Our Kentucky operations have replaced four 1950s vintage large pumps, improving efficiency, per pump by 10-35%. Operations have adjusted their practices to rely more heavily on the newer pumps. Kentucky operations continues to evaluate pump efficiency to prioritize future pump replacement. New Jersey operates 8,250 leak detection nodes, including hydrant-mounted leak detection caps that listen for and help proactively identify leaks. One operational area realized a water loss decrease of over 40% between 2015 and 2021. These leak detection efforts are a continuous preventative maintenance program.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

Financial planning elements that have been influenced	Description of influence
Row 1 Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	<p>Capital Expenditures: Situation: Acute physical climate risks such as extreme weather events pose increasing risks to American Water. Task: American Water is tasked with addressing potential risks posed by aging infrastructure and the increasing impacts of climate variability to continue providing safe and reliable water and wastewater services to customers. Action: American Water plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. This includes approximately \$1.2 billion to \$1.4 billion between 2022 and 2026 dedicated to resiliency within the Regulated Business. A specific example of an action taken includes an investment of \$4 million on 32 generator projects across 12 states in 2020. In addition, as the need for standby generators is crucial during power loss events, we have entered into agreements to help improve the availability of fuel deliveries for emergency use. Result: These projects, and the other capital investments made by American Water, improve asset resiliency and the reliability of water service to customers during an emergency. We anticipate our investment budget will continue to rise as infrastructure ages, climate-related risks are realized, new regulations are promulgated, and growth continues. Revenues: American Water compiled revenue for our inclining block states (CA and NY), combined that with our Revenue Stabilizing Mechanism states (NY, CA, and IL), and added in the fixed meter charges from our other regulated states, which resulted in approximately 47% of our customers having adaptive rates - related to the risks and opportunities provided. Situation: New York American Water (NYAW) utilizes groundwater for its source of supply. Groundwater resources in the region are limited. Task: The Company is tasked with the responsibility of continuing to provide safe and reliable water to customers as communities continue to grow and redevelop. Action: NYAW designed and instituted a water conservation program and modified tariff structure to encourage customer water conservation. Long Island, NY faces saltwater intrusion resulting in water availability challenges. The New York State Department of Environmental Conservation set a goal for Long Island water suppliers to reduce their peak season water demand 15% by 2021 to help preserve Long Island's sole source aquifer. To meet this goal, NYAW's H2O Control Conservation Program provides customers with tips, tools, and technologies, empowering them to understand and improve their water use efficiency. Result: The conservation plan enabled a peak season water production decrease of 6.5% compared to 2018. Direct Costs: Climate variability has impacted certain treatment facilities located in flood prone areas. As the need for standby generators is crucial during power loss events, we have entered into agreements to facilitate fuel delivery for emergency use. Additionally, to prepare for such events American Water maintains Emergency Response Plans. Indirect Costs: The increased cost of treatment and pumping due to changes in input pricing and loading from other external factors presents financial and strategic risk. The cost of electric energy for water treatment, wastewater treatment, and pumping operations (about 1 million MWh/yr) represents a significant portion of our annual operations budget. Increased fuel and power costs may cause changes to the operational efficiency profile by limiting financial resources available. Capital Allocation: Asset replacement to improve efficiency, meet regulations, provide supplies, and reduce the loss of "High Risk Assets" are core drivers for capital allocation and investment. Each of these core drivers can be impacted by climate variability such as water supply quantity, impacts to water quality, or the need to harden assets due to increased storm activity and severity. Examples of capital allocated for improved resiliency include flood wall protection, reservoir projects in Maryland and Missouri, installation of standby power systems, and interconnections with adjacent water purveyors. Acquisitions and divestments: A component of evaluating potential acquisitions is the ability to integrate adjacent systems and assets into our current infrastructure. Many acquired systems are under distress and have been poorly maintained. Identifying inefficiencies through due diligence review, many with a direct impact on GHGe, such as aged, leaking water mains and inefficient assets (e.g., pumps) are factored into our acquisition strategy. These approaches not only allow for a reduction in the existing carbon footprint through more efficient operations, but also improve customer service and satisfaction. Situation: With increasingly stringent environmental, water quality, and health and safety laws and regulations, including with respect to contaminants of emerging concern, and the need for increased infrastructure investment, many community water and wastewater systems may be strained to meet the increasing standards of operation. Task: American Water considers the impacts of climate-related risks during system upgrade and project designs, and business development opportunities. Action: American Water has a robust process to enhance resiliency for its operations and for business development. American Water plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. We commit approximately \$2.5 to 3 billion annually to capital investment, and approximately 10-12% of our total capital investment to increasing the resiliency of our assets. We are an experienced utility with proven access to capital and financial, technical, and managerial resources with public service commission oversight. We are a solution provider and believe that many communities could benefit from our services. One example is Illinois American Water's acquisition of the Village of Glasford water and wastewater systems in 2019. Result: Planned capital projects will integrate the Glasford water system into the larger central Illinois American Water operations through the installation of a transmission water main. This allows the Glasford water system to benefit from existing operational efficiency and economy of scale present in this region. Access to Capital: Traditional means of access to capital are currently not impacted. American Water has sufficient access to capital for the anticipated risk mitigation activities and capital improvement plan. Liabilities: Our capital program planning process examines and includes projects such as flood walls that mitigate liabilities due to climate-related risk. The planning process integrates several scoring factors including identification of high-risk assets that can be impacted by several circumstances, including climate-related risk. Reduction of risk and hardening of high-risk assets reduces liabilities.</p>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2017

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

<Not Applicable>

Base year

2007

Base year Scope 1 emissions covered by target (metric tons CO2e)

63977

Base year Scope 2 emissions covered by target (metric tons CO2e)

789699

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

853676

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

40

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

512205.6

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

75554

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

459373

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

534927

% of target achieved relative to base year [auto-calculated]

93.3460118358722

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

The Company's Regulated Business involves the ownership of utilities that provide water and wastewater services to residential, commercial, industrial, public authority, fire service and sale for resale customers. Additionally, the Company provides water and wastewater services to municipalities and the U.S. government on military installations that own their utility systems. American Water tracks greenhouse gas (GHG) emissions (GHGe) related to its Regulated Business.

Plan for achieving target, and progress made to the end of the reporting year

American Water has committed to reducing our GHG emissions by 40% from our base year of 2007 by 2025. Our GHG emissions as of 2021 were 534,927 MT CO2e meaning we achieved approximately a 37% reduction from our base year and are 93% of the way toward our goal.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2021

Target coverage

Business activity

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Resource consumption or efficiency	Other, please specify (System delivery)
------------------------------------	---

Target denominator (intensity targets only)

Other, please specify (Unit customer)

Base year

2015

Figure or percentage in base year

0

Target year

2035

Figure or percentage in target year

15

Figure or percentage in reporting year

5

% of target achieved relative to base year [auto-calculated]

33.33333333333333

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

Other, please specify (Increased Water Efficiency)

Please explain target coverage and identify any exclusions

American Water is committed to meeting customers' water needs while simultaneously saving 15 percent in water delivered per customer, by 2035, compared to a 2015 baseline.

Plan for achieving target, and progress made to the end of the reporting year

As of yearend 2021, American Water has already accomplished a 5.0 percent reduction in water delivered per customer. In the future, expanding best practices from existing efficiency programs, utilization of innovative technologies like AMI and leak detection, leveraging the transparency that is gained through these programs to identify and eliminate sources of water loss faster, and benefiting from ongoing national trends of declining residential water use related to fixtures and appliances will continue to drive progress. By investing capital to improve system performance, water loss and non-revenue water can both be reduced, while additionally minimizing customer rate impacts.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	0
To be implemented*	1	7000
Implementation commenced*	1	7800
Implemented*	88	6872
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement
---	-------------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

822

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

82000

Investment required (unit currency – as specified in C0.4)

1154000

Payback period

11-15 years

Estimated lifetime of the initiative

>30 years

Comment

In 2021, American Water implemented 47 pump upgrade projects at water and wastewater facilities. The Company also continues its ongoing annual programs that contribute to reducing emissions. These programs include pump and generator replacements or refurbishments, water/sewer main replacement, construction of new water storage tanks, and water efficiency programs. These programs account for four implemented initiatives for which emissions reductions have not been quantified for 2021. Aged generators are replaced with more efficient units. Water main replacement results in improved hydraulic efficiency and reduced leakage. Replacement of sewer mains reduces stormwater inflow and infiltration, thereby reducing treatment volume. The construction of new water storage tanks reduces peak hourly pump volume. The investment required, estimated GHGe savings, and estimated annual monetary savings listed above are based on five pump projects. These values are likely to be higher than noted when including all projects. Savings for other programs are listed separately where available. United States Environmental Protection Agency (EPA) eGRID emission factors were used to convert estimated energy reduction to CO2e reduction. One initiative under investigation includes new facility designs utilizing a sustainable site approach, effective roofing strategies, and water use reduction to reduce energy consumption. No estimate of savings is provided at this time.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Water use and efficiency)
---	--

Estimated annual CO2e savings (metric tonnes CO2e)

150

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3418000

Investment required (unit currency – as specified in C0.4)

8500000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

As discussed in question C2.4a, in 2015, American Water implemented a water loss management program within one operating area in New Jersey. The program has

resulted in a 1,894 Mgal reduction in recorded water loss in 2021, compared to a 2015 baseline. Based on New Jersey American Water's average energy use intensity, the 1,894 Mgal reduction in recorded water loss equates to an estimated 1,040 MTCO₂e savings from the program 2015 baseline. The EPA eGRID regional emission factor was used to convert estimated energy reduction to CO₂e reduction. Water loss savings and greenhouse gas emissions reductions vary from year to year. Total program benefit since program implementation provides a more meaningful and complete picture than an annual summary. As such, the average annual emissions savings of 150 MT CO₂e was presented above. The 150 MT is included in the 6,872 MT CO₂e avoided through implemented projects. Acoustic leak monitoring equipment has a life cycle of approximately 10 years. The program requires annual investment to maintain the existing equipment and expand the program footprint. For this particular case study, operational savings exceeded capital investments after approximately 3 years. The investment required includes capital investment since project initiation (\$8,500,000) and the annual monetary savings is the average annual operational expense cost avoidance since project initiation (\$3,418,000).

Initiative category & Initiative type

Low-carbon energy generation	Solar PV
------------------------------	----------

Estimated annual CO₂e savings (metric tonnes CO₂e)

5575

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

205000

Investment required (unit currency – as specified in C0.4)

500000

Payback period

1-3 years

Estimated lifetime of the initiative

21-30 years

Comment

Illinois American Water supported the installation of solar projects at two facilities in 2021, totaling 4.8 MW dc capacity. These projects were implemented using power purchase agreement (PPA) models. American Water provided siting for these installations through lease agreements and has committed to purchasing the generated solar energy. These facilities are expected to produce almost 8,000 MWh of power, which equates to roughly 5,575 metric tons (MT) of CO₂e avoided. The 5,575 MT is included in the 6,872 MT CO₂e avoided through implemented projects. Note: American Water's renewable energy generation and PPA partnerships do not directly reduce its GHG emissions due to solar renewable energy credit activity; however, American Water's efforts to build solar infrastructure where economically feasible helps contribute to global GHG emission reduction efforts.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting
--------------------------------	----------

Estimated annual CO₂e savings (metric tonnes CO₂e)

325

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

42000

Investment required (unit currency – as specified in C0.4)

856000

Payback period

16-20 years

Estimated lifetime of the initiative

6-10 years

Comment

In 2021, American Water implemented lighting improvements in 35 locations. The savings is based on 460,000 kWh saved in the first year, for an estimated 325 MT of CO₂e avoided. The 325 MT is included in the 6,872 MT CO₂e avoided through implemented projects. The greenhouse gas savings and monetary savings listed above are based on 18 lighting projects. The investment required is based on all 35 lighting projects. The estimated annual monetary and GHG savings are likely to be higher than noted when including all projects. EPA eGRID emission factors were used to convert estimated energy reduction to CO₂e reduction.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal incentives/recognition programs	All non-union American Water employees must complete an annual performance review, consisting of a goals section with specific performance measures as well as a section where they describe how they demonstrated American Water's values during the review period. One of these five core values is "Environmental Leadership." One approach employees can use to demonstrate their Environmental Leadership is by describing how they participated in a variety of efforts that contribute to the management of climate variability. The employee's combined performance measures aligned to our goals as well as the overall values performance rating can impact a non-union employee's Annual Performance Plan (APP) pay-out. The APP is designed to promote all employees, from executive leadership to our front-line represented employees, in achieving annual business objectives by providing an opportunity to earn performance-based compensation tied to Company APP goal performance.
Internal finance mechanisms	Capital projects that target reducing emissions (e.g., solar installations, etc.) and those that can leverage state or federal incentive programs are considered as they align with American Water's value of Environmental Leadership. Electrical supply agreements and net metering rules are evaluated during project scope development.
Internal finance mechanisms	Upgrades to newer equipment and facilities provide an opportunity to improve efficiency in energy use and drive emissions reductions. Aged pipelines are often replaced with larger diameter pipes, improving hydraulic capacity of the piping grid and reducing energy loss due to friction within the pipe. New pumps, motors, building systems, and mechanical equipment are generally more efficient and the new design is better suited for current and future operating conditions.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

No

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1 2007

Base year end

December 31 2007

Base year emissions (metric tons CO2e)

63977

Comment

Scope 2 (location-based)

Base year start

January 1 2007

Base year end

December 31 2007

Base year emissions (metric tons CO2e)

789699

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

75554

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

American Water intends to investigate how to capture and incorporate electricity supplier emission factors into future reporting.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

459373

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top $\geq 50\%$ of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for purchased goods and services.

Capital goods

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top $\geq 50\%$ of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for capital goods.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top $\geq 50\%$ of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for fuel-and-energy-related activities.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top $\geq 50\%$ of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for upstream transportation and distribution.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top ≥50% of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for waste generated in operations.

Business travel

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

American Water has not completed an evaluation of Scope 3 emissions related to business travel.

Employee commuting

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

American Water has not completed an evaluation of Scope 3 emissions related to employee commuting.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have no upstream leased assets and therefore GHG emissions associated with this category for American Water are zero (0 MT CO₂e).

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As described in 12.1a, American Water has developed an engagement program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top ≥50% of our sourceable spend. This activity supports American Water's ongoing efforts to develop a climate-related supplier engagement strategy, which may include calculation of Scope 3 emissions for downstream transportation and distribution.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant to the water/wastewater industry as we sell no products outside of water/wastewater services. As there are no sold products, emissions resulting from the processing of sold products that may be attributed to this category are zero (0 MT CO2e).

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant to the water/wastewater industry as we sell no products outside of water/wastewater services. As there are no sold products, emissions resulting from the use of sold products that may be attributed to this category are zero (0 MT CO2e).

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant to the water/wastewater industry as we sell no products outside of water/wastewater services. As there are no sold product, emissions resulting from the end of life treatment of sold products that may be attributed to this category are zero (0 MT CO2e).

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have no downstream leased assets and therefore GHG emissions associated with this category for American Water are zero (0 MT CO2e).

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have no franchises and therefore GHG emissions relevant to this category for American Water are zero (0 MT CO2e).

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have no investments in this area and therefore GHG emission relevant to this category for American Water are zero (0 MT CO2e).

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not applicable.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not applicable.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00016

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

534927

Metric denominator

unit total revenue

Metric denominator: Unit total

3384000000

Scope 2 figure used

Location-based

% change from previous year

5.6

Direction of change

Decreased

Reason for change

2021's intensity figure decreased 5.6% from the 2020 value due to decreased Scope 2 emissions and increased total revenue. The emissions decrease was driven by a number of emissions reduction initiatives, including pump upgrades across American Water's footprint and water loss management, which reduced Scope 2 (location-based) emissions, as disclosed in C4.3b.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	73873	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	104	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	293	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1284	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	75554

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Combustion	33001
Mobile Sources	41269
Refrigerant	1284

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United States of America	459373	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Electricity Usage	459373	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	American Water did not change the amount of renewable energy consumed in 2021.
Other emissions reduction activities	1297	Decreased	0.2	As explained in C4.3b, American Water has implemented initiatives that resulted in a total annual estimated reduction of 1,297 metric tons in 2021. Last year's Scope 1 and 2 emissions were 545,111 MT CO2e, so these activities resulted in a 0.2% decrease of Scope 1 and 2 emissions: $(1,297/545,111)*100 = 0.2\%$. This refers to changes in emissions that have occurred because of proactive emissions reduction initiatives or activities, where GHG emissions savings have been estimated. For example, those listed in question C4.3b. Note: The 1,297 MT CO2e estimated emissions reduction above does not include the 5,575 MT from the Illinois solar project cited in C4.3b $(6,872 - 5,575 = 1,297)$. American Water does not retire solar renewable energy credits under its name. As such, American Water does not take credit for the GHGe reductions within its overall emissions calculations. Although American Water's renewable energy generation does not directly reduce its GHG emissions, American Water's efforts to build solar infrastructure where economically feasible helps contribute to global GHG emission reduction efforts.
Divestment	0	No change	0	American Water did not change its physical operating conditions in 2021.
Acquisitions	0	No change	0	American Water completed 23 acquisitions across 6 of states in 2021 and is currently implementing a process to track emissions data of new acquisitions.
Mergers	0	No change	0	American Water did not change its physical operating conditions in 2021.
Change in output	0	No change	0	American Water did not change its physical operating conditions in 2021.
Change in methodology	0	No change	0	American Water did not change its physical operating conditions in 2021.
Change in boundary	0	No change	0	American Water did not change its physical operating conditions in 2021.
Change in physical operating conditions	0	No change	0	American Water did not change its physical operating conditions in 2021.
Unidentified	0	No change	0	American Water did not change its physical operating conditions in 2021.
Other	8887	Decreased	1.6	American Water's Scope 1 + 2 emissions for the reporting year were 534,927 MT CO2e. This equates to a year over year reduction of 10,184 MT CO2e $(545,111 - 534,927)$. In addition to the reductions experienced through our emission reduction activities described above, American Water decreased its emissions by another 8,887 MT CO2e $(10,184 - 1,297)$, which when compared to last year's total Scope 1 + 2 emissions of 545,111 MT CO2e, represents 1.6% of its overall GHG emissions as $(8,887/545,111) * 100 = 1.6\%$. This reduction was due to resiliency efforts, conservation, and infrastructure improvements.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	347170	347170
Consumption of purchased or acquired electricity	<Not Applicable>	0	1059427	1059427
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	0	1406597	1406597

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water did not consume any sustainable biomass in 2021.

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

48

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water consumed 48 MWh of bioethanol fuel in 2021.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water did not consume any other renewable fuels in 2021.

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

182048

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water consumed a total of 182,048 MWh from fuel sources (Motor Gasoline, Diesel).

Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

165074

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water consumed a total of 165,074 MWh from gas sources (Natural Gas, Propane).

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water did not consume any other non-renewable fuels in 2021.

Total fuel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

American Water did not consume any other fuel in 2021. Data for fuel types consumed (Bioethanol, Diesel, Motor Gasoline, Natural Gas, and Propane) are reported above within this response.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	3749	0	3749	0
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

United States of America

Consumption of electricity (MWh)

1059427

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1059427

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Other, please specify (Measurement of Environmental, Social, and Governance (ESG) factors included within our supplier base.)

% of suppliers by number

2.8

% total procurement spend (direct and indirect)

54

% of supplier-related Scope 3 emissions as reported in C6.5

0

Rationale for the coverage of your engagement

American Water has developed a program that starts with the suppliers with which we have the highest spend (as that increases our ability to leverage the suppliers' practices). This specifically targets suppliers that represent the top ≥50% of our sourceable spend.

Impact of engagement, including measures of success

The Supplier Management Practice guides new and existing supplier relationships to align with our values of Safety, Trust, Teamwork, High Performance, and Environmental Leadership. As part of this practice, conducted a benchmark assessment of suppliers' sustainability risks, programs and performance in the following areas: - Supply Chain Sustainability Program - Sustainability policies and performance management - Circular economy - Carbon Management - Energy savings programs - Water savings programs Through a supplier survey in 2020, we targeted suppliers that represent the top ≥50% of our sourceable spend ranked with ESG framework. We surpassed our target for suppliers responding to our sustainability survey with responding suppliers representing 54% of our sourceable spend. Our goals are progressive, first to understand suppliers' behaviour by learning about the climate-related strategies and efforts of our top suppliers. Our longer-term strategy is to incorporate this information into a working sustainable partnership with our suppliers and into our sourcing process as a factor in the supplier selection decision-making process. During 2021, we evaluated the supplier survey responses and rated each supplier's sustainability program. We have also taken the next step by including supplier sustainability into our Supplier Relationship Management (SRM) program by adding several sustainability questions to our periodic supplier performance evaluation surveys.

Comment

American Water has evaluated its largest supplier's sustainability programs based on the survey responses and has incorporated sustainability questions into supplier performance evaluation surveys a part of SRM program.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to education customers about your climate change performance and strategy
-------------------------------	--

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

There are many challenges facing water systems today: aging infrastructure, emerging water concerns, and increasing threats and impacts from climate variability and natural disasters. American Water has been at the forefront of environmental leadership when, in 2006, it became the first U.S. water or wastewater utility to join the Environmental Protection Agency's (EPA) Climate Leaders program and CDP. American Water is consistently communicating with customers. General education and messaging points mainly leverage digital communications that include the American Water website, social media, standard media, and state specific customer portals and other digital platforms. The Company's Regulated Businesses, as defined in C0.1, also communicate to customers via direct mail, bill inserts/onserts, as well as electronically through its customer portal and various digital platforms. The Company's education and information-sharing engagements targets 100% of its customers as nearly everyone seeks ways to cut costs and therefore conserve resources. An example of messaging conveyed throughout the year on a consistent basis includes: American Water plans to invest between \$28 billion and \$32 billion over the next 10 years for capital improvements and growth from acquisitions. This includes approximately \$1.2 billion to \$1.4 billion between 2022 and 2026 dedicated to resiliency within the Regulated Business.

Impact of engagement, including measures of success

As we confront the challenges posed by climate variability, persistent droughts, and high-energy prices across the country, nearly everyone is looking for ways to conserve resources and cut costs. We inform and educate customers on simple techniques they can employ to use water more efficiently and conserve energy. These solutions make both environmental and economic sense: • Check for and repair leaks throughout your home or business. • Install a EPA EnergyStar-rated on-demand hot water system. • Install EPA WaterSense-rated low flow shower heads, faucet aerators, and High Efficiency Toilets (HETs). HETs use just 1.28 gallons per flush (gpf) or less as compared to the 3.5 gpf or more for toilets sold prior to 1994. • Lower your water heater thermostat to 120 degrees. Some manufacturers set water heater thermostats at 140 degrees. Lowering the temperature would reduce water heating costs by 6 - 10%. • Wrap pipes that are not insulated, or that pass through unheated spaces such as crawlspaces, basements or garages, with pre-molded foam rubber sleeves or fiberglass insulation. • Use energy and water efficient appliances • Use drip irrigation systems in gardens and landscaping rather than hose sprayers or sprinklers. • Wrap your water heater in an insulation blanket to help reduce heat loss. Nearly 20% of an average home energy bill goes to heating water. American Water has reinforced its commitment to water use and efficiency by committing to meet customer needs while saving 15% in water delivered per customer by 2035 compared to a 2015 baseline. We will continue engaging with our customer base to build the knowledge and support critical to meeting this goal. Ultimately, a target such as this improves operational efficiency, reduces greenhouse emissions, and improves American Water's resiliency to climate-related risks. The measure of success for this engagement is the amount of water saved through conservation and efficiency measures. Our residential customers have saved about 1,200 gallons per customer per year – or 3.4 billion gallons annually – through conservation and efficiency measures in recent years. American Water also produces a Sustainability Report biannually that details our climate strategy and GHG emissions reduction performance. This information is made available to our customers.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

Attach commitment or position statement(s)

<Not Applicable>

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Throughout the American Water footprint, consistency in messaging, strategy, and values is paramount. We completed a Materiality Assessment in 2019 that supported the Sustainability Report and focus on business strategy. The Materiality Assessment included both internal subject matter experts (SME) and external stakeholders to help make certain that overall strategy aligned with materiality and stakeholder input and was approved by the Company's Executive Leadership. Several of the material topics identified align with climate variability, energy and emissions, water infrastructure, and water use and efficiency. To provide consistency, our SMEs have been trained on conveying specific climate variability messaging related to their areas of expertise. Messaging is extended to a variety of audiences including elected officials, policy makers and regulators. We are in the process of updating our Materiality Assessment. We communicate regularly with external stakeholders including elected officials, regulators, policy makers, trade associations, and other organizations. An example of an executive and SME that contributes to the consistency of our messaging to stakeholders is our vice president, Chief Environmental & Safety Officer who addresses topics such as, but not limited to, the sustainability of water supply and infrastructure. Consistent communications messaging includes risk and resiliency, climate variability, and other topics associated with the Company's climate strategy and ensuring that operations continue to align with the overall business strategy. As a regulated utility we operate in the best interest of our customers, improving their communities because we are there, with a concentrated focus on risk and resiliency. The American Water Board approves the detailed budget annually which includes a breakdown of resiliency directed expenditures. The Safety, Environmental, Technology & Operations Committee of the Board directly oversees ESG matters and maintains alignment with overall operations. The committee is informed on ESG and climate variability related targets, goals, and progress. As an additional measure to maintain messaging consistency, only SMEs and those authorized by the American Water Communications Department, are permitted to engage with and respond to elected officials, policy makers and regulators to help make certain that all public engagement messaging is consistent with the Company position and strategy.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Other, please specify (Reduced energy use through operational efficiency)

Specify the policy, law, or regulation on which your organization is engaging with policy makers

One example of our efforts includes the Infrastructure Investment and Jobs Act (the "IIJA"), which was an effort that American Water supported at the federal level in 2021. The IIJA was signed into law and provides for up to \$55 billion to aid in improving the country's ailing water infrastructure, including \$23.4 billion for drinking water and wastewater, \$15 billion for lead service line replacement (through the drinking water state revolving fund), and \$10 billion for the treatment of per- and polyfluoroalkyl substances ("PFAS") and other contaminants of emerging concern. The bill also includes a low-income assistance program, which allows eligible low-income customers who receive their water from public and private entities to participate in the program. The IIJA allows utilities to increase the number of eligible infrastructure investment projects, which in turn improves the efficiency of their water and wastewater systems, leading to less energy used and less emissions transmitted.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

United States of America

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Our primary goal as a regulated utility is to support laws and policies that enhance our ability to provide safe, affordable, and high-quality water and wastewater services to our customers. We engage with every level of government to voice our support for effective policy and provide support that aligns with our business values in all of the communities that we serve. We also participate in several non-partisan partnerships to advocate for effective environmental, health and safety and water quality standards and regulations at the local, state, and federal level. We see ourselves as a key stakeholder for policy decisions that affect the water and wastewater utility industry. Our thought leadership can help inform the decisions of regulators or politicians and prevent ineffective or costly regulation that has little benefit to our customers and communities. Our policy influence may also provide communities with more options to address challenges like water scarcity or water affordability and access. We will continue working with regulators and other stakeholders across our footprint to support responsible policies that enhance our ability to provide our customers with water and wastewater solutions and align with our business.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Focus of policy, law, or regulation that may impact the climate

Other, please specify (Reduced energy use through operational efficiency)

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Missouri passed the Water and Sewer Infrastructure Act, Senate Bill 44/House Bill 397, to establish a new statewide surcharge mechanism program which covers replacement of aging water distribution and sewer collection infrastructure. This legislation broadens the eligible projects covered by the current Infrastructure System Replacement Surcharge mechanism and expands its applicability to projects across the state. The Water and Sewer Infrastructure Act allows utilities to increase the number of eligible infrastructure investment projects, which in turn improves the efficiency of their water and wastewater systems, leading to less energy used and less emissions transmitted.

Policy, law, or regulation geographic coverage

Sub-national

Country/region the policy, law, or regulation applies to

United States of America

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Missouri American Water (MOAW) engaged directly with policymakers, including: • MOAW engaged with members of the Missouri Legislature and their staff to support the passage of the Missouri Water and Sewer Infrastructure Act; • MOAW thoroughly reviewed and provided input on the draft legislation as it made its way through the legislative process; • MOAW testified before the Senate Commerce Committee and the House Utilities Committee in support of the bill; and • MOAW participated in numerous education meetings with legislators and staff to explain and support the bill.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify (National Association of Water Companies (NAWC))

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Source: <https://nawc.org/issues/environmental-stewardship/> NAWC members are committed to protecting the environment and to using our most precious resource – water – as wisely as possible. Improving environmental stewardship is one of the most often-cited reasons municipalities give for deciding to work with a water company. For water companies, sustainability is essential. The fact is water companies are helping to lead the way on water conservation with green, energy-saving initiatives that make a difference for the communities they serve. From Connecticut to California, our members are educating customers about the importance of protecting natural resources and the environment. NAWC members have a strong track record of helping communities improve their water conservation practices through award-winning community education programs and water audits. By utilizing smart water use practices – like water recycling and leak detection technology – water companies are leading the way in protecting the environment and promoting sustainable solutions.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

National Association of Water Companies (NAWC)

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

We disclose our political contributions annually on the American Water website (<https://www.amwater.com/corp/About-Us/Ethics-Responsibility/Political-Contributions-And-Lobbying-Expenditures/2021-political-contributions-and-lobbying-expenditures>) in line with our Political Contribution Policy. As mentioned in C12.3.a, our goal as a regulated utility is to support laws and policies that enhance our ability to provide safe, affordable and high-quality water and wastewater services to our customers. We engage with every level of government to support effective policy that aligns with our business values. We also participate in several non-partisan partnerships to advocate for effective environmental, health and safety and water quality standards and regulations at the local, state and federal level. We see ourselves as a key stakeholder for policy decisions that affect the water and wastewater utility industry. Our leadership can help inform the decisions of regulators or politicians and prevent ineffective or costly regulation that has little benefit to our customers. Our policy influence may also provide communities with more options to address challenges like water scarcity or water affordability and access. We will continue working with regulators and other stakeholders to support responsible policies that enhance our ability to provide our customers with water and wastewater solutions and align with our business. We strive to maintain consistent and meaningful engagement with industry associations and regulators. Through our involvement in such organizations, we help implement best practices, inform regulations and provide safe and reliable water and wastewater services to our customers. We collaborate with industry associations and government agencies through panels, thought leadership, research and other engagements to both share and build our expertise on issues relevant to water and our industry.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

10-K_YE_12-31-2021.pdf

Page/Section reference

10k - Environmental, Social Responsibility, and Governance: pages 18 - 20

Content elements

Emissions figures

Emission targets

Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

AWK-ESG-Data-Summary_YE_12-31-2021.pdf

Page/Section reference

Pages 1 - 4

Content elements

Emissions figures

Emission targets

Other metrics

Comment

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

American Water 2019-2020 Sustainability Report.pdf

Page/Section reference

Pages 95 - 126

Content elements

Governance

Strategy

Emissions figures

Emission targets

Other metrics

Comment

The 2019-2020 Sustainability Report explains business strategy around the material topics related to climate variability such as: Water Infrastructure, Climate Variability and Water Supply Resilience. Material topics in the Sustainability Report related to GHG emissions include: Water Use and Efficiency and Energy and Emissions. In each of these sections goals, targets, and performance metrics are provided with additional metrics provided in the Content Indices. We produce a biannual Sustainability Report and the 2021/2022 Sustainability Report will be released in late summer/early fall 2023 and will disclose 2021 and 2022 emissions data.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Please select	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Please select	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	Please select	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Please select	<Not Applicable>

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Please select	Please select

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
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C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President and CEO	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	3930000000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Information is not available.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	As a water and wastewater utility company this allocation breakdown is not available.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

As a Water and Wastewater Utility company this allocation breakdown is not available.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms