



# 2017/2018 SUSTAINABILITY REPORT

Cover Image: Jalandis Howard, resident of Harrison Homes where the Peoria GreenSplash park is located, and Dr. Brad Cotton, spouse of an Illinois American Water employee and lifelong Peoria, IL resident.

## Reflecting Our Values in the Community

Customers are at the center of everything we do and every decision we make; to support this mission and stay true to our values, we provide opportunities for employee and community volunteerism.

At American Water, we believe it is imperative to be an integral part of the communities we serve while providing a positive work environment where people can work safely, generate great ideas, provide the best customer service and make a difference. Every person’s contribution matters and our culture provides opportunities for all our employees and their families to participate in local events and give back to our communities. The cover photo is from the July 2018 Illinois American Water and American Water Charitable Foundation (AWCF)—Peoria GreenSplash Volunteer Day, where more than 50 employees and family members volunteered to help beautify the area surrounding the Peoria GreenSplash Park in our Illinois service area. The splash park and educational area was made possible through a \$150,000 Building Better Communities Grant from the AWCF and the National Recreation and Park Association (NRPA) in collaboration with the City of Peoria, Illinois, American Water and the Peoria Housing Authority (PHA). The splash park is located on land donated by the PHA, adjacent to Harrison Homes.



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# DOING WELL BY DOING GOOD



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## About This Report

This report constitutes our fifth biennial Sustainability Report, covering our sustainability performance for calendar years 2017 and 2018. We prepared this report in accordance with the GRI Standards: Core option. In this report, we also disclose several standards from the Sustainability Accounting Standards Board (SASB) and Edison Electric Institute (EEI). Please see our [Content Indices](#) for references to each framework.

Preparing this report provides a valuable opportunity to assess and improve upon our environmental, social and governance (ESG) progress and performance. We welcome your feedback on this report. Please contact our ESG Manager Abbey Barksdale at [Abbey.Barksdale@amwater.com](mailto:Abbey.Barksdale@amwater.com) with questions or feedback.

Our 2015–2016 Corporate Responsibility Report, published in October 2017, is available [here](#).



HIGHEST RANKED  
UTILITY ON  
BARRON'S  
**2019**  
100 MOST SUSTAINABLE  
COMPANIES



REDUCED GHG  
EMISSIONS  
**31%**  
TOWARD 2025  
GOAL OF 40%



TRANSFERS &  
PROMOTIONS:  
**52%**  
MINORITY, FEMALE,  
VETERAN OR  
DISABLED CANDIDATES



**54.5%**  
OF AMERICAN  
WATER'S  
BOARD ARE  
WOMEN



**\$8–8.6B**  
IN CAPITAL  
INVESTMENTS  
2019–2023



AVERAGE PIPE  
RENEWAL RATE  
150YR CYCLE:  
25% BETTER  
THAN INDUSTRY  
AVERAGE



**50%**  
REDUCTION  
IN WORKPLACE  
INJURIES  
SINCE 2013



**GOAL:**  
20X BETTER  
THAN INDUSTRY  
AVERAGE WATER  
QUALITY

102-14

## Greetings from Our President & CEO

We are proud to present you with our 2017–2018 Sustainability Report. Today’s stakeholders expect corporations to provide leadership on environmental, social and governance (ESG) principles and make a positive impact. At American Water, we know that “how” a company operates is just as important as “what” a company does.

We are a leader in integrating ESG principles into our business. We have been recognized for our efforts by our inclusion in the 2019 Bloomberg Gender-Equality Index, the NAACP Equity, Inclusion and Empowerment Index, Barron’s 100 Most Sustainable Companies ranking and as a top-scoring (100%) company on the Disability Equality Index (DEI). It is vitally important that we tell our entire story and fully demonstrate our commitment to these defining principles for outstanding companies.

**For some, ESG is a recent development. For American Water, it is an affirmation of the values we have upheld for decades.**

However, ESG is much broader than just three words. It includes environmental leadership and sustainability; operational excellence; employee engagement, safety and equality; active community engagement, civic and charitable involvement; and transparency and good governance—all are foundational to our corporate strategy. Stakeholders want to see defined and measured actions and results that are reflective of a company’s commitment to the principles of ESG.

Environmental leadership is one of **five values** at American Water and we have the responsibility to treat and deliver the most precious of life’s needs—water. Sustaining that critical resource for generations to come through Energy Use, Water Use and Water Policy Leadership is core to who we are. For example, we have a goal of reducing GHG emissions 40% by 2025 from our 2007 baseline, and have already achieved an approximate reduction of 31% through 2018.

We also believe “Social” represents a view of a company’s impact on everyone it touches—our people, customers, communities, investors, regulators, vendors and many more. This is our culture and how we do business. American Water is a values- and purpose-driven company. We are people-powered and our employees represent the communities we are privileged to serve. We are customer obsessed and every day we take pride in delivering the critical services of water, sanitation and fire protection to more than 14 million Americans.

Our 7,100 employees serve over 1,600 communities across the country, and we aspire to make every community better because we are there. We have been in business since 1886, and we are in this business for the long-term. We have a strong commitment to employee and customer safety, as well as to employee inclusion and diversity reflecting the communities we serve.

From a Governance standpoint, we are recognized as being one of 10 S&P 500 companies with at least 50% female Board members. Our commitment to gender parity resulted in our Board being comprised of 50% men/50% women in 2018, and 45.5% men/54.5% women as of July 25, 2019.

A commitment to ESG principles is a priority for our entire company from the Board of Directors to leadership to every employee. As the largest water utility in the U.S., we must be committed to the sustainability of this critical resource for generations to come.

Companies do well by doing good. Values matter. To us, being committed to ESG principles means: keeping employees safe and injury-free, and developing them to their fullest potential; being a leader in environmental sustainability; being obsessed with outstanding water quality and customer service; and being the trusted source of everything water.

**Susan Story**  
President and Chief Executive Officer



# About American Water

Clean, safe, reliable and affordable. The service we provide does not simply make life more comfortable or more enjoyable; it makes LIFE POSSIBLE. Without water, we could not survive. With it, we can improve lives and communities. Water helps to nourish and refresh us, grow our food, keep us clean and healthy and protect our homes from fire. The one thing we can never do is take water for granted.

Our job is to provide this essential service for a lifetime. We know that at the end of every water pipe people are depending on us to provide life's most critical need, every fire hydrant depends on our service and that every treatment plant serves as a barrier against potential disease. We deliver safe, clean, reliable water service that is also affordable because our customers, employees, partners and the people and institutions who invest in us deserve nothing less. Every community should be stronger because we are there.

What's good for our environment, customers, employees and communities has also proven to be good for our shareholders and our financial sustainability as a company. Our ultimate measure of success, however, is broader than just dollars and cents. Success is driven by a single, overriding purpose: to KEEP LIFE FLOWING for more than 14 million people every day.



102-2, 102-4, 102-6, 102-7

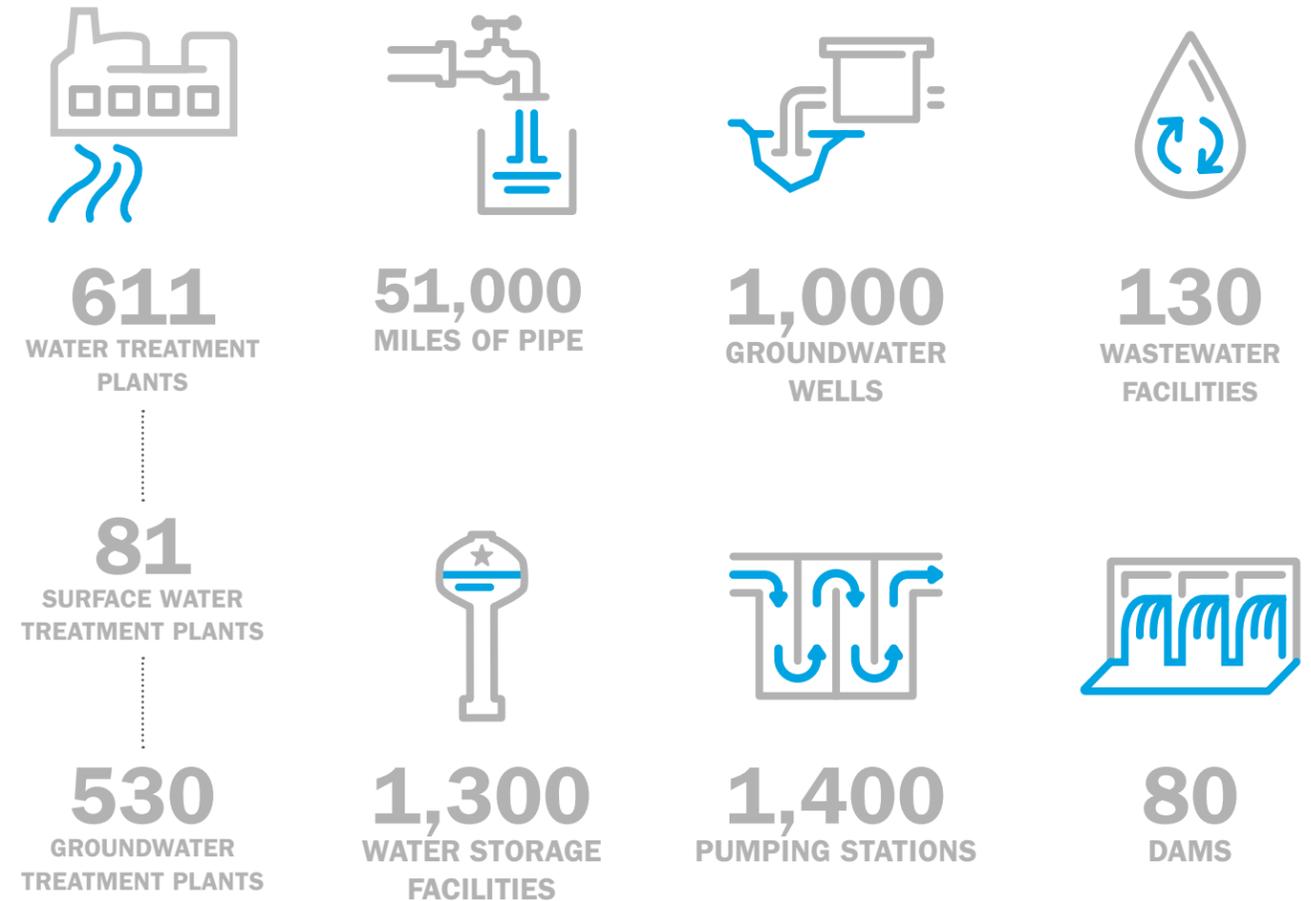
## Our Company

To understand our impact, it's important to understand our business. We are the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. Headquartered in Camden, NJ and listed on the New York Stock Exchange under the ticker symbol "AWK," we employ more than 7,100 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to more than 14 million people in 46 states.

To meet the U.S.' many water challenges, American Water provides services through two lines of business: regulated and market-based businesses.

### Regulated Footprint<sup>1</sup>

Our primary business involves providing water and wastewater services to residential, commercial, industrial, public authority and industrial customers.



<sup>1</sup>Approximations of our primary operating assets as of December 31, 2018.

## Our national regulated footprint provides regulatory and geographic diversity through operations in 16 states and 14 regulatory jurisdictions.

We provide clean, safe, reliable and affordable water and wastewater services for our customers in the following states:

### California & Hawaii

- California American Water
- Hawaii American Water

### Midwest

- Illinois American Water
- Indiana American Water
- Iowa American Water
- Michigan American Water<sup>1</sup>
- Missouri American Water

### Southeast

- Kentucky American Water
- Tennessee American Water<sup>2</sup>

### Mid-Atlantic

- Pennsylvania American Water
- West Virginia American Water

### Eastern

- Maryland American Water
- New Jersey American Water
- New York American Water
- Virginia American Water

<sup>1</sup>Michigan American Water is not subject to economic regulation.

<sup>2</sup>Tennessee American Water provides water to part of northern Georgia.

### Market-Based

In addition to our regulated operations, we also provide a broad range of complementary water and wastewater services through our market-based businesses. These services leverage our core competencies, but do not involve ownership of assets. Our primary market-based businesses include the following operating lines of business:

- **Homeowner Services Group**, our largest market-based business, provides various warranty protection programs to residential and commercial customers. As of December 31, 2018, our Homeowner Services Group had approximately three million customer contracts in 43 states, and 26 partnership agreements with utilities, municipalities and other organizations.
- **Military Services Group** partners with the U.S. Military to treat and supply water and collect and treat wastewater for military installations across the country as part of the federal government's Utility Privatization Program. We currently operate 50-year contracts at 14 military installations across the nation.
- **Keystone Clearwater Solutions**, headquartered in Hershey, PA, provides customized water transfer services for shale natural gas exploration and production companies. Our goals in this business are to ensure the quality of the water supplies (since they are primarily located where we serve water in our regulated business), as well as encouraging 100% recycling and reuse in this space.



102-16

### Our Values

Our core values help explain who we are as a company and what we represent to our stakeholders. They are the principles that guide the decisions of everyone at American Water every day, and they form the cornerstones of our business culture.

#### Safety

Safety underpins everything we do. Every day, our employees should return home in the same, or better, condition as they were when they came to work. Our commitment to safety extends to our customers and the communities we serve. Our target is—and must be—zero injuries.

#### Trust

We are the trusted source of everything water. Our customers and all our stakeholders trust in our ability to operate in accordance with federal, state and local regulations and be a leader in the industry. We are the only consumable/ingestible utility and don't take that trust for granted, and will continue working to bring together all stakeholders to ensure we have safe, reliable and affordable water and wastewater services. We have a long and rich history of serving customers and providing trusted solutions for the communities we serve, and we will continue to do so.

#### Environmental Leadership

We are responsible for the sustainability of critical water and wastewater services, but clean water doesn't happen without environmental leadership. At American Water, we all play a role, from ensuring water quality at our plants to conserving energy and being an environmental policy leader.

#### Teamwork

We continue to build an environment where every employee feels included and knows how he or she contributes to the company's strategies and goals. We promote and support an inclusive and diverse culture, and work together to meet common goals. We hold each other accountable and challenge each other to reach the best decisions, to help ensure we meet our commitments to the communities we serve.

#### High Performance

Consistent high performance is the key to being the best water and wastewater utility in the country. When it comes to complying with strict federal regulations for delivering clean, quality drinking water, we consistently score among the highest of all water providers. High performance means aiming higher than just "compliance" to real leaders.



### Our Strategy

Our purpose and values drive our company strategy. We have developed our “strategy wheel” to illustrate what we must do to reach our vision. It features five key focus areas for our business. Each area has associated performance aspirations and goals, designed to deliver continuous improvement over the coming years.

#### Safety

Safety is both a strategy and a core company value, and that is on purpose. To us, safety is more than just “the right thing to do.” The health and safety of our employees and contractors is a leading indicator of our company’s health. Simply put, if we get safety right, we can get everything else right.

#### People

Maintaining an environment where our people feel valued, included and accountable is critical to our ability to serve our customers every day. We are working together to create an environment where employees can live up to their fullest potential and feel confident that what they do directly contributes to our company’s ability to stay strong, grow and make a difference in our customers’ lives.

#### Operational Excellence

To excel, we have to get the fundamentals right. Our operational excellence strategy helps us to find better and more efficient ways to do business, and to provide safe, clean and affordable water services for our customers. As the largest water and wastewater company, we assume the responsibility to go beyond minimum requirements and be an industry leader in operational and environmental excellence.

#### Growth

We believe that when companies grow, they can invest more in creating stable jobs, training, benefits, infrastructure and our communities. Our growth benefits all our stakeholders, including our shareholders.

#### Customers

Our customers are at the center of everything we do and every decision we make. We want to be the best, and if our customers had a choice as to who serves them, we want them to choose us. Customer input, along with empathy for our customers’ ideas and experiences, drives how we change and improve our processes and systems. We are all about showing customers and communities that we care about what they care. It is why people trust us to provide a life-sustaining service everyday. As a result, our customer base continues to grow.

## Corporate Governance & Business Ethics

### Corporate Governance

Strong corporate governance practices support our strategic direction, culture of ethics and reputation. At American Water, effective corporate governance means:

- Having a high quality, diverse Board of Directors who reflect our customers;
- Implementing policies and procedures that promote governance quality, operating in stakeholders’ best interest and engaging stakeholders;
- Promoting the integrity of governing bodies, such as independence of the chair;
- Ensuring clear lines of accountability for material environmental and social topics, including Board engagement on sustainability topics; and
- Demonstrating transparency and accountability to stakeholders through public disclosures.

102-18

#### Governance Structure

Our corporate governance structure helps to ensure accountability and integrity across the organization. Our [Board of Directors](#) has the following standing committees:

- Audit, Finance and Risk (AFR)
- Executive Development and Compensation
- Nominating/Corporate Governance
- Safety, Environmental, Technology & Operations<sup>1</sup>

Each standing committee abides by its charter, available in the Downloads section.

<sup>1</sup>Includes cybersecurity governance

#### DOWNLOADS

- [Board of Director’s Committee Charters](#) ↗
- [Board of Directors](#) ↗
- [Code of Ethics](#) ↓
- [Doing Business with American Water](#) ↗

405-1, EEI 7.2, EEI 7.3

#### Board Diversity

We are committed to Board diversity, ensuring that the skills and experiences in the boardroom continue to reflect the needs of our business, align with our long-term strategy and reflect the communities we serve. We have a longstanding commitment to gender equality at all levels of our company, acknowledged by our inclusion on the Bloomberg Gender-Equality Index and continued commitment to Paradigm for Parity, to further diversity in leadership.

As of July 25, 2019 three additional Directors were added to the Board of Directors increasing the size from eight to 11 members. The three new additions represent gender, racial and experience diversity, and increase the women on the Board to six out of 11 directors, or 54.5%.

Our Board of Directors receives regular updates about the company’s overall corporate responsibility/sustainability performance.

.....  
**Women comprise  
 54.5% of American Water’s  
 Board of Directors.**



102-12

**ESG Governance**

Our Safety, Environmental, Technology & Operations Committee oversees practices and performance across numerous environmental and social areas. The Safety, Environmental, Technology & Operations Committee assists the Board in the oversight and review of:

- Employee and public safety;
- Environmental policies and practices, including without limitation, water quality and emerging contaminants;
- Technology policy, strategy, and governance, including physical and cybersecurity matters related to the company's operations; and
- Operational performance and risks (other than risks covered by another committee of the Board).

To demonstrate our commitment to ESG governance and transparency, we report through the following global frameworks:

- Global Reporting Initiative (GRI)
- CDP (formerly Climate Disclosure Project) Climate Change
- SAM Corporate Sustainability Assessment (CSA)

Additionally, we have voluntarily aligned with National Institute of Standards and Technology (NIST) standards since 2014, demonstrating our commitment to protecting critical infrastructure.

403-7

**Business Ethics**

We are committed to doing things the right way, so we promote open and direct communication and require our employees and partners to operate ethically, fairly and respectfully. In addition to observing applicable laws, regulations and American Water's policies and practices, we expect our employees, suppliers and business partners to comply with our Code of Ethics, which focuses on:

- Avoiding Conflicts of Interest
- Conduct in the Workplace
- Fair Dealing
- Handling Sensitive Information
- Safeguarding Financial Information and Controls
- Government Relations
- Equal Employment Opportunity
- Non-discrimination
- Non-retaliation
- Harassment-Free Workplace
- Health and Safety Support

Compliance with our Code of Ethics is a condition of employment. Failure to abide by the Code or to report a known violation can lead to disciplinary action up to and including termination of employment.

We maintain a confidential Ethics Hotline that is available to employees and external stakeholders, including suppliers and customers.

102-17

**Our Code of Ethics**

To ensure employees understand our expectations, we provide annual training on the Code of Ethics and require all employees to participate. In our annual Code of Ethics training, employees view videos hosted by Executive and Senior Leadership Team Members, and most importantly, review scenarios from real-life events and incidents. Every employee is given time to complete the training by his or her local manager. In addition to annual Code of Ethics training, the Compliance and Ethics team provides targeted training throughout the year to certain employee groups based on specific events that arise in the business. All employees are eligible for the Annual Performance Plan (APP) Bonus, but they will not receive their payout unless they have completed the Code of Ethics training.

The Chief Compliance Officer oversees the response to all calls made to the ethics hotline, as well as all ethics issues reported through different channels. When appropriate, the Chief Compliance Officer will escalate a case to the Compliance and Ethics Committee (comprised of the Executive Leadership Team) and/or the Board's Audit, Finance and Risk Committee. The Chief Compliance Officer reports through a matrixed hierarchy directly to the head of the Board's Audit, Finance and Risk Committee to further ensure independence.

We design our policies and practices to combat corruption and anti-competitive behavior, promote transparency and ensure integrity in all our activities. Our Procurement Policy requires all employees involved in procuring goods or services work to ensure that the company achieves the best value for its spend, protect the company from risks and liabilities in the procurement process, ensure suppliers share our values and ethics and ensure fair and equitable competition amongst suppliers.



# DOING WELL BY ENGAGING STAKEHOLDERS



102-46

## Materiality Assessment Process

In 2019, we engaged a third party to conduct a thorough materiality assessment. This assessment gave us valuable feedback about the ESG topics that matter most to both American Water and our stakeholders. Our materiality assessment followed the Global Reporting Initiative (GRI) Standards and began with topic identification, followed by topic prioritization and concluded with a validation session with our Executive Leadership Team.

**Our materiality assessment followed the Global Reporting Initiative (GRI) Standards and began with topic identification, followed by topic prioritization and concluded with a validation session with our Executive Leadership Team.**

### 1 Topic Identification

We identified the universe of potentially relevant internal and external topics by assessing sector-specific topics prioritized by leading sustainability organizations, including GRI and the Sustainability Accounting Standards Board (SASB). We also reviewed peers, industry research and other publicly available resources to determine which topics to include in topic prioritization.

After preliminary topic identification, we mapped our ESG impacts from sourcing to customers, to help ensure topics were relevant to American Water's scope of operations.

### 2 Topic Prioritization

We interviewed internal and external stakeholders to obtain evidence of our ESG impacts, risks and opportunities and analyzed evidence of each topic's relative importance to the represented stakeholders. To supplement stakeholder interviews, we evaluated numerous third party and corporate sources. The combined input provided the relative priority of each topic.

### 3 Validation

After determining the critical topics identified by our stakeholders, we hosted a validation session. During this session, our Executive Leadership Team reviewed the results of the prioritization, provided commentary and confirmed the findings.

102-47

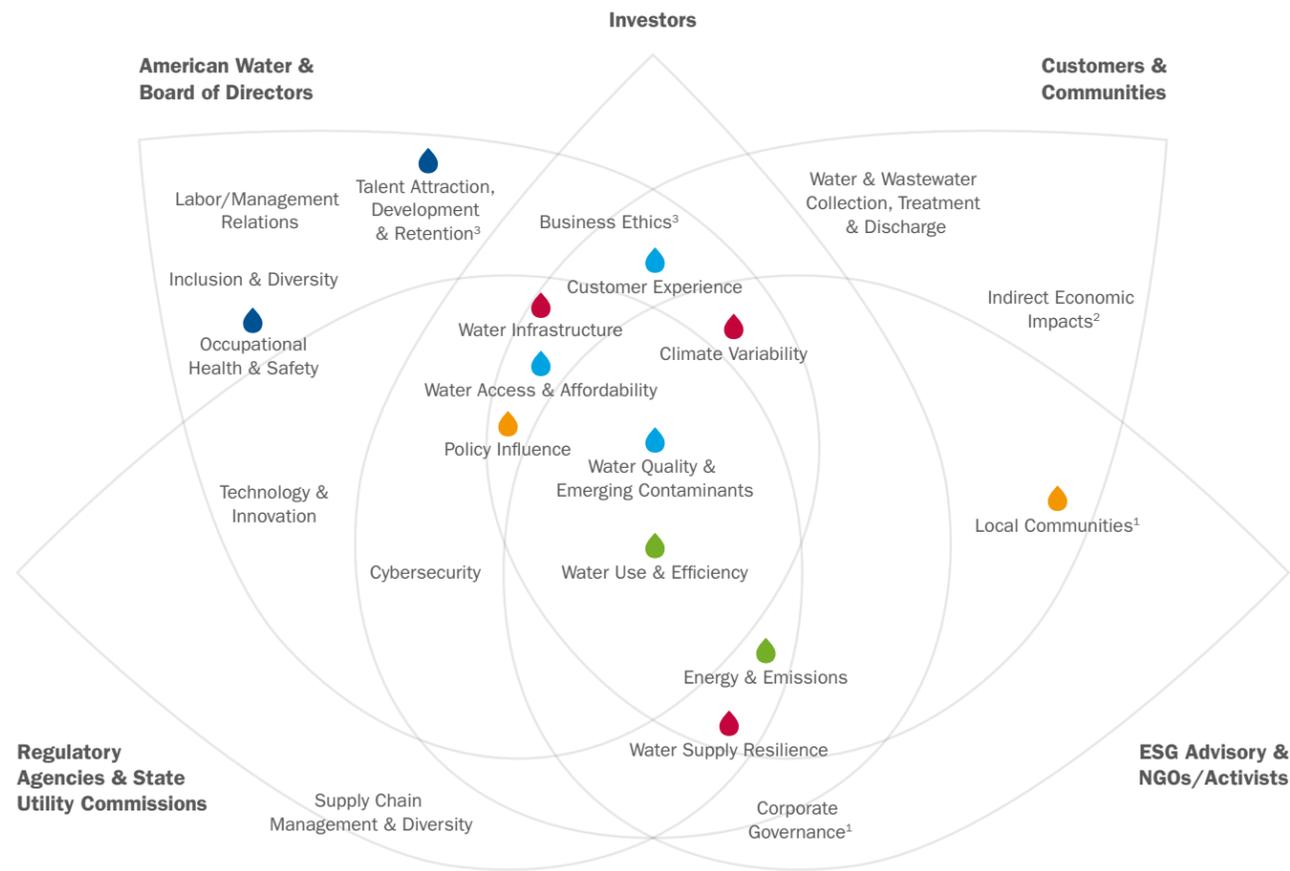
## Our Material Topics

Per the GRI Standards, we identified material topics by considering the two dimensions of the materiality principle:

- The significance of our organization’s economic, environmental and social impacts; and
- Our substantive influence on the assessments and decisions of stakeholders.

While all ESG topics are important to our company and warrant effective management, we focus this report on those topics that are most material to our business. These topics, shown below, are the focus of this report. We will monitor, manage and report on each of our material topics.

## Our Prioritized Material Topics



### Topic Legend

- Stakeholders
- Workforce
- Customers
- Infrastructure
- Environment

<sup>1</sup>Also important to American Water

<sup>2</sup>Also important to Regulatory Agencies & State Utility Commissions

<sup>3</sup>Also important to ESG Advisory & NGOs/Activists

102-40, 102-42, 102-43, 102-44

## Engaging Our Stakeholders

GRI sustainability reports follow 10 principles, including Stakeholder Inclusiveness. We engage with our customers and communities to enhance knowledge and understanding of the challenges of delivering safe, affordable and reliable water and wastewater services. This includes climate variability impacts affecting water supply, the effects of aging infrastructure and the pressing need to invest in local water resources and systems. Just as our stakeholders are vital to our business, their input was equally vital to our materiality assessment.

This table summarizes our stakeholder engagement practices and identifies the key topics relevant to each stakeholder group:

Stakeholder	Engagement Mechanism	Priority Topics
Communities	Community Surveys, Volunteering, Open Houses/Plant Tours/Community Events	Water Infrastructure, Water Use & Efficiency, Local Communities (Indirect Economic Impacts)
Credit Rating Agencies	Conference, Regular Meetings	Energy & Emissions, Occupational Health & Safety
Customers	Customer Service Orders, Bills, Emails/Texts/Social Media/Calls, Online Communities, Focus Groups, Surveys	Customer Experience, Water Use & Efficiency
Employees	Employee Satisfaction Survey, Town Hall Meetings, Intranet, Labor Management Conference, Job Fairs	Talent Attraction, Engagement & Retention
ESG Rating Agencies	Conferences, Meetings	All Material Topics
Industry Associations	Conferences, Memberships (See 102-13 on next page), Meetings	Water Infrastructure, Policy Influence
Investors	Conferences, Regular Meetings, Earnings Calls & Investor Presentations	Policy Influence, Water Quality & Emerging Contaminants, Corporate Governance
Regulators	Conferences, Meetings, Regulatory Associations	Water Quality & Emerging Contaminants, Water Infrastructure
Suppliers	Supplier Audits, Supplier Conferences	Supplier Diversity
Unions	Regular Meetings, Labor Management Conference	Occupational Health & Safety, Talent Attraction, Engagement & Retention

Please see the [Policy Influence](#), [Customer Experience](#), [Local Communities](#), [Talent Attraction](#), [Engagement & Retention](#) sections in this report for further detail about how we engage these specific stakeholder groups.



102-13

### Industry Association Memberships

We are proud to belong to numerous industry organizations at the local, state and national level. We are active members of the following national organizations:

- American Water Works Association (AWWA)
- BlueGreen Alliance
- National Governor’s Association: Water Advisory Council
- National Conference of State Legislatures
- The National Association of Water Companies
- U.S. Conference of Mayors Water Council
- US Water Alliance (including the Value of Water Campaign)
- Water Environment & Reuse Foundation (WE&RF)
- Water Innovations Alliance Foundation
- Water Research Foundation

At the state and local levels, we are active members and partners with numerous industry and locational organizations. In some cases, such as large capital projects or in areas of water scarcity, we work with these organizations to develop formal plans for engagement and communication with customers, regulators, NGOs, state environmental commissions and other external groups.

103-1

## Policy Influence

### WHY IT MATTERS

As a regulated utility, we are committed to industry leadership and establishing non-partisan partnerships with federal, state and local agencies to support effective environmental, health and safety and water quality standards and regulations. Additionally, we are committed to contributing positively and transparently to public policy. We engage with governments to provide thought leadership, political support that aligns with our business drivers and ethical standards and support of our customers’ rights to clean water and sanitation.

The stakes are high—if regulators or politicians misunderstand optimal solutions to addressing water infrastructure needs, they might impose ineffective or costly regulation. It is our role to partner with these policy makers and advocate for solutions that are best for our customers.

Our leadership position and public policy efforts enable us to give communities more options to address their water and wastewater challenges. We will continue to work with our colleagues in the water sector, regulators at the state and federal levels and Congress to advocate for responsible federal and state policies.

#### DOWNLOADS

- [Political Contribution Policy](#) 
- [Political Contributions](#) 

103-2

## OUR APPROACH

### Policies

Our Code of Ethics includes guidelines for interactions with government officials and maintaining ethical government relations, including lobbying, political contributions and bribery and corruption.

The Board of Directors approved our [Political Contribution Policy](#), which provides Board oversight of our political contributions and requires public disclosures of our political expenditures on our website. For more details on our political contribution activity, please read the [Political Contributions section](#) of this report.

### Responsibility

The Safety, Environmental, Technology & Operations Committee reviews policies and practices that affect environmental and business operations and objectives, while the Nominating/Corporate Governance Committee establishes the policies, practices, principles and procedures for Board oversight. The Senior Vice President of Business Development and Government Affairs oversees regulatory relationships and engagements on a nationwide basis and works with regulated utility presidents to oversee policy measures and external affairs teams in their states. In recent years, we have focused on legislation that increases options for utilities to address water and wastewater challenges for our customers, as well as on legislation that requires accountability regarding water quality. For more information on this, please see our [Water Quality & Emerging Contaminants section](#).

## Collaboration & Engagement

To maximize positive impact, we work closely with the U.S. Environmental Protection Agency (EPA), Centers for Disease Control (CDC), state Departments of Environmental Protection (DEPs) and other agencies to lead the science-based research efforts and establish effective environmental, health and safety and water quality standards and regulations. Our participation on panels with industry associations and government agencies allows us to draw on the past, analyze the present and illuminate the future to inform our expertise in the entire water cycle and identify how we can best contribute. Please see our [Water Quality & Emerging Contaminants section](#) for more information.

To promote better legislation on behalf of our customers, we prioritize our influence engagements based on opportunities that support solutions to water and wastewater challenges. We seek to share regulatory best practices with states that have the opportunity to introduce measures encouraging needed, cost-efficient water and wastewater infrastructure investment. It is also about giving communities more options when it comes to finding viable solutions to water and wastewater challenges.

By continuing to actively engage with public officials and contribute thoughtful insights that positively impact water policies, American Water, our customers and communities will benefit.

## Legislative Updates

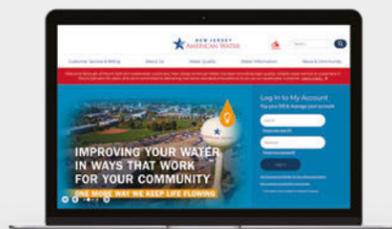
In 2017 and 2018, we supported legislation at the state and federal level.

State	Legislative Update
Indiana	Act 362: Ensuring the Long-Term Viability of Water and Wastewater Utilities
New Jersey	Water Quality Accountability Act
Pennsylvania	Act 120: Allows Recovery for Customer Side Lead Water Service Lines Act 58: Allows Alternative Rate Making Mechanisms Act 12: Fair Market Value Constructively Clarified
Illinois	Extension & Expansion of Fair Market Value from Five Years to 10 Years
Missouri	Allows Revenue Stabilization Mechanism (RSM) Asset Sale Option for More Than 500 Small Towns
Maryland	Fair Market Value
Iowa	Future Test Year Approach in Rate Cases Fair Market Value
California	Bill 2179: Cities May Sell Systems With Majority Vote Bill 2339: Certain Cities May Sell Systems With No Election Bill 1577: Sale of System to Public Water Companies Through an RFP Process
Virginia	Water Rate Consolidation Wastewater Rate Consolidation
Federal	America's Water Infrastructure Act



## Water Quality Accountability Act

On July 21, 2017, we were excited that Governor Chris Christie signed the Water Quality Accountability Act (WQAA) into law in New Jersey. The WQAA sets new operational standards for water utilities across New Jersey and imposes new requirements in areas such as cybersecurity, asset management, water quality reporting, Notice of Violation remediation and hydrant and valve maintenance.



For more information, please visit [New Jersey American Water](#).

## Water Infrastructure Act of 2018

America's Water Infrastructure Act of 2018 became law in September 2018. We believe this legislation sets a course for greater compliance and improved management of water systems across the country. Importantly, the legislation helps ensure that all water providers, including both private water providers and regulated water utilities, remain an option for communities that need assistance in meeting new compliance and management expectations. We continue to work with our colleagues in the water sector, regulators at the state and federal levels and with our friends in Congress to advocate for responsible federal policies.



## Political Contributions

As a company whose regulated operations are significantly impacted by public policies, we are firmly committed to participating responsibly in the political process and making reasonable political contributions, in a non-partisan manner, consistent with all applicable laws and reporting requirements. Our [Political Contribution Policy](#), adopted by the Board of Directors in December 2018, outlines acceptable practices for political contributions.

Our political contributions must be made only by the American Water Works Company, Inc. Employee Federal PAC (the “Employee Federal PAC”), or through a subsidiary or line-of-business PAC (a “Subsidiary PAC”). Our employees have the opportunity to make political contributions in their individual capacity. Our employee’s political contributions, including their contributions to PACs, are not subject to this Policy.

As part of the company’s commitment to good governance principles and transparency, and in accordance with our Board-approved Political Contribution Policy, we publicly disclose on our website information related to the company’s political contributions and certain payments made to tax exempt organizations and trade associations exceeding \$50,000 (each as described in the Policy) within 180 days after the end of the fiscal year.

We made our first annual disclosure required under this Policy on our website in April 2019.

**As a company whose regulated operations are significantly impacted by public policies, we are firmly committed to participating responsibly in the political process and making reasonable political contributions, in a non-partisan manner, consistent with all applicable laws and reporting requirements.**

## Commitments/Goals

We strive to maintain consistent and meaningful engagement with industry associations and regulators through active involvement with industry and [trade associations](#), as well as regulatory relationship building and engagement. We will continue to share and discuss best practices throughout the water and wastewater industry. Through our involvement in such organizations we will help implement best practices, and inform regulations, to ensure safe and reliable water and wastewater services to every customer.

103-3, 415-1

### OUR PERFORMANCE

In accordance with our Political Contribution Policy, American Water disclosed the following contributions in 2018.

	2018
Direct Political Contributions Made by an American Water Entity	\$54,300
Political Contributions Made by the Employee Federal PAC or a Subsidiary PAC	\$366,040
Third-Party Payments to Trade Associations and Tax-Exempt Organizations <sup>1</sup>	\$2,161,399

<sup>1</sup>Third-Party Payments to a tax-exempt organization or trade association during a fiscal year where the aggregate amount of all payments made by the company or any subsidiary exceeds \$50,000 in that fiscal year, and the third-party informs the company in writing that a portion of any such payment was used for lobbying expenditures or political contributions that are considered non-deductible under Internal Revenue Code of 1986.



## Revenue Legislation Enables Greater Infrastructure Investment

After starting in only one state in 1997, Fair Market Value (FMV) legislation expanded to 10 states nationwide and eight of our regulated states. We support FMV legislation to give communities more options to address water and wastewater challenges. Historically, acquisition prices for water and wastewater systems were calculated at book value, which considerably undervalues the assets as it fails to account for capital investments made. FMV legislation establishes a transparent process for independent valuation experts to calculate a reasonable and fair value for water and wastewater assets. FMV legislation allows communities to leverage our compliance expertise, purchasing power and operational efficiencies to benefit their local systems’ infrastructure and service.

## Revenue Stabilization Mechanisms

A Revenue Stabilization Mechanism (RSM) is an innovative regulatory tool we are allowed to use in California, Illinois and New York. In 2018, legislation was passed in Missouri allowing our State utility company to request an RSM in future base rate case filings. Rather than implicitly encouraging water use and penalizing a water utility for encouraging conservation, an RSM adjusts rates periodically to ensure that a utility’s revenue will be sufficient to cover its fixed costs regardless of throughput, while providing an incentive for customers to use water more efficiently. American Water is supportive of this ratemaking policy, speaks to the benefits of RSMs at external stakeholder events and encourages the use of RSMs across the states where we operate.

103-1

## Local Communities

### WHY IT MATTERS

Customers are the center of everything we do, so we go the extra mile for the communities we serve. Water is inherently local and we believe that helping our communities thrive is a business imperative. By understanding the needs of each community we serve, we can better serve neighbors and customers. It is vital for us to maintain strong partnerships with local communities, promote public outreach and consultation and provide financial support to local communities. To support our mission and stay true to our values, we also provide opportunities for employee volunteerism.

We understand and demonstrate the importance of remaining a valued community partner through contributions of dollars, time, energy and resources. These contributions help enhance our reputation, maintain a successful business and enable our social license to operate.

103-2, 413-1, 413-2

### OUR APPROACH

We continue to build on our existing communication programs to advance public awareness of American Water's strategy to be purpose-driven, people-powered, customer-obsessed and the trusted source of everything water. Led by our Vice President of Communications and Federal Affairs, this effort includes leveraging technology, customer research, industry coalition efforts, public policy and four External Affairs Directors, who report to their state presidents, and about 25 local External Affairs Managers who also work directly with our local communities.

We focus our efforts in the communities where we provide water and/or wastewater services. In fact, we often select our office locations alongside our operations where we can maximize positive impact on local communities. We always work to ensure the communities we serve are better because of our presence there. We built our new headquarters at One Water Street in Camden, NJ, with this in mind. Relocating even more of our employees to the city allows us to enhance our support in Camden, a historically financially distressed city, and continue to grow our roots in our new home. It enables us to form new partnerships and expand existing ones with local organizations that continue to improve the quality of life in the City of Camden, just like us.

We also build community trust by informing neighbors about the life-sustaining services we provide. We know it is important for customers to know about the significant investments we make to help ensure clean, safe, reliable and affordable water services. Our customers are also interested in our efforts to protect the environment whether it is watershed protection, reducing greenhouse gases or pharmaceutical drop-off programs to avoid contaminating water supplies.

Community members and customers can contact us through various channels, including social media, town hall meetings, community meetings and events. Our Customer Experience Department and an online "Neighborhood" review feedback drive business practice changes such as bill layout improvements and more. Please see [Customer Experience](#) for more information.

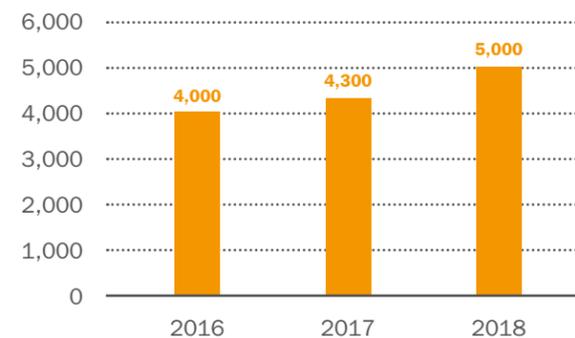
## Employee Volunteerism

We enhance the lives of those we serve by supporting our employees in giving back to organizations they care about. Encouraging employee volunteerism creates a more engaged workforce and generates positive returns to the communities we serve. Our employees are Little League coaches, emergency medical technicians, volunteer firefighters and environmental leaders. We enable our operations to choose which local efforts, important to our local people, to support.

AWCF has matched more than 28,000 hours of volunteer service by our employees in the past six years, and during 2018, our employees volunteered more than 5,000 hours in just one month with AmerIcANs in Action!

103-3

### AmerIcANs in Action! Month of Service Volunteer Hours



**Encouraging employee volunteerism creates a more engaged workforce and generates positive returns to the communities we serve.**

## Angelita Fasnacht & Water for People



Our employees are committed to bringing clean, safe water to everyone. We are proud of employees like Angelita Fasnacht, a Senior Project Manager for Water Quality and Environmental Compliance, who grew up in Colombia and became president of a water company. Within two years, she and her organization brought clean, safe water to 50,000 people in rural Colombia. However, the terrorist group FARC kidnapped Angelita because they saw her as a threat to the communities' dependency on them. They released her after 32 days, only after she agreed to leave the country and never return to that job, in order to save her life and that of her family. She came to the U.S. with \$2,500 and did not speak English. Today she is a research scientist at our headquarters in New Jersey, finishing her Ph.D. and still leading international efforts for clean water around the world. In 2018, Angelita won an award from Water For People in recognition of her contributions to their mission and the Living Water Award In 2018.



## American Water Charitable Foundation

We have long believed in the importance of being a good neighbor and good steward of the environment. The primary focus of the American Water Charitable Foundation (AWCF) is to support employees in their own charitable endeavors, provide stronger support for disaster relief efforts and to provide funding for higher-level initiatives related to clean water, conservation, education and community sustainability. Since its inception, the AWCF has invested more than \$4 million in programs and organizations that are important to our employees and our communities.

Through our Employee Volunteer and Matching Gift Program, Employee Crisis Fund, Disaster Relief Program, Keep Communities Flowing Grant Program and our Signature Program, Building Better Communities, the AWCF is making a difference every day in diverse communities throughout the country.

- Since 2012, AWCF has provided over \$1 million in matching gifts to public charities that are important to our employees, increasing year over year. This includes more than 28,000 hours of volunteer time, provided by employees, outside of regular work hours.
- In 2018, in partnership with the Community Foundation of New Jersey, we established the American Water Employee Crisis Fund to provide confidential emergency financial assistance to employees during times of need, such as when impacted by a natural disaster or family emergency. Created for employees, by employees, funding comes from the AWCF and employee donations. For more information, visit the [AWCF website](#).

- AWCF's newest annual grant program, Keep Communities Flowing, provides grants up to \$20,000 each to support 501(c)(3) public charities that connect with one or more of AWCF's core focus areas: Water and the Environment, Water and Healthy Living, Environmental Education and Community Sustainability. In the program's inaugural year, 2019, AWCF awarded 11 projects in seven states totaling \$150,000.
- The Building Better Communities Grant Program helps communities we serve enhance or create public park spaces or programs that encourage the community to engage in water, nature-inspired play and environmental education. We offer opportunities to learn, interact and appreciate water, a critical natural resource, in a fun and engaging way.

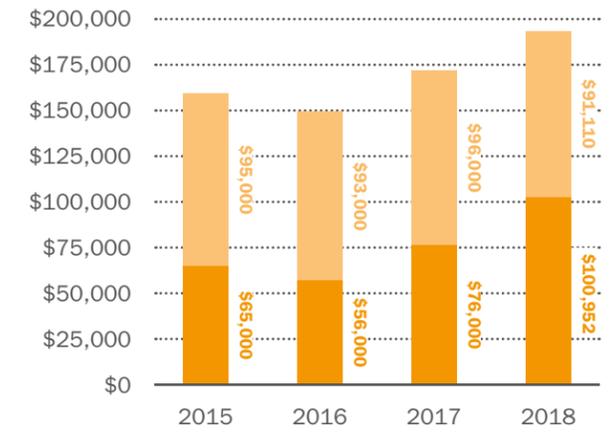
During the last five years, in partnership with the National Recreation and Park Association, AWCF awarded \$2 million to 14 projects in communities where our employees and our customers live, work and play.

- In partnership with the Union Sportsmen's Alliance, we focus on pairing USA's all-volunteer Work Boots on the Ground program with employees to volunteer their time and skills on water-related conservation projects and improving public access to water-based recreation. Project examples include ADA accessible fishing piers, boat docks and kayak and canoe trails.

The AWCF continually strives to further its charitable purpose, supporting employees and the communities we serve, to become stronger, more vibrant, healthier and environmentally friendly.

103-3

## AWCF Matched Funds for Employees



■ AWCF matched funds for employee volunteer hours  
 ■ AWCF matched funds for employee monetary donations  
 Note: Matching Gift Program Match Cap is \$1,000 (or 50 hours) per employee per calendar year

## Corporate Giving

We sponsor workplace-giving campaigns for two organizations focused on helping communities around the world: United Way and Water For People. Our employees contribute to these giving campaigns because they care deeply about our local and global communities.

In 2017 and 2018, our annual United Way giving campaign raised nearly \$816,000. During the last 10 years, the campaign generated approximately \$5 million in donations to United Way efforts across the country.

In the developing world, we support Water For People, an international non-profit organization working across nine countries to bring safe water and sanitation to four million people. In 2018, our partnership raised more than \$200,000, and donated a total of \$2.5 million in the last decade.

To further our employee's charitable efforts, the American Water Charitable Foundation also provides annual donations of \$50,000 to both the United Way and Water For People.



# DOING GOOD FOR OUR WORKFORCE



**We are a People Powered, Purpose Driven company. Our employees and contractors are the backbone of American Water—without them, we could not successfully deliver safe, clean, reliable water to our customers. And it starts with keeping them safe, healthy and supported. We give our workers the training and tools they need and promote a culture where our diverse employee population can thrive. The majority of American Water’s workforce are regular full-time employees.**

103-1

## Occupational Health & Safety

### WHY IT MATTERS

Safety is more than just “the right thing to do”—it is a core company value and strategy. Our employees’ and contractors’ health is a leading indicator of our company’s health. Simply put, we have to get safety right, before we can get everything else right.

As a value, safety means caring about our employees, contractors and customers—our goal is for everyone to feel safe at work. Every day, our employees should return home in the same, or better, condition as they were when they came to work. We all benefit when everyone involved with our organization is healthy and safe.

As a strategy, Occupational Health and Safety (OHS) translates to better performance across our entire organization. With healthy and injury free employees, we perform well as a business, lower our operating costs and increase employee morale.

103-2

### OUR APPROACH

We weave our safety strategy throughout the fabric of our organization. Integral to this strategy is our commitment to safety leadership, employee accountability and how we perform our jobs each day. By successfully working together and caring for each other, we believe we can achieve excellent health and safety performance and zero incidents.

To uphold our commitment, we invested nearly 80,000 hours in employee safety training in 2018. Through frequent labor-management meetings across the company, we encourage open exchanges to explore new ways to further enhance safety on the job. If it takes longer to do a task safely, employees are empowered to take the time they need. In addition, we empower our employees to stop working whenever they think a task is unsafe, and address the hazard or issue with management—this authority is provided on the back of every employee’s identification badge.

.....  
**Safety is both a core value and a strategy at American Water. Our employees’ and contractors’ health is a leading indicator of our company’s health.**  
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### Policies

Our Health and Safety Policy provides the requirements and responsibilities to implement and manage effective health and safety programs that support the best possible working conditions for our employees: continuous safety program improvement; reduction of occupational injuries and illnesses; and compliance with regulations.

On our journey to zero injuries, we strive for continual improvement and listen to employee and contractor feedback regarding our policies and practices.



### Responsibility

At American Water, we hold everyone accountable, not only for their own safety but for the safety of others. All employees need to actively engage in safety and understand that we embed safety in everything we do. This accountability extends to our contractors as well. We equip every employee and contractor with a Stop Work Authority card, empowering everyone to identify and stop potentially unsafe work without reprimand or criticism.

### Occupational Health & Safety Governance

At the organizational level, our Chief Operating Officer provides guidance and leadership and is ultimately accountable for our OHS performance and culture. Our Executive Leadership Team, including our Vice President of Safety Leadership, champions our safety strategy and develops our implementation plans to achieve zero injuries. Each state and business is accountable for strategy implementation and day-to-day OHS management.

### National Safety Council

Our National Safety Council is comprised of employees across our business representing our operations and functions, including union-represented employees. The Council reports to our Executive Leadership Team. The primary responsibilities of the Safety Council include evaluating safety related events of mutual concern across the business and making recommendations for improvement. We address and resolve the majority of safety concerns at the local level, and we have many local safety committees across our footprint. These committees support the National Safety Council, raise concerns that require further evaluation and complete proactive safety action items to improve the local safety culture and work environment.

### The Safety, Environmental, Technology & Operations Committee

The Safety, Environmental, Technology & Operations Committee of the Board of Directors is responsible for OHS oversight at American Water. This Committee oversees significant policies, practices and performance related to matters of health and safety for employees, customers, contractors, communities and the public. Additionally, the Safety, Environmental, Technology & Operations Committee monitors our safety strategy, leading and lagging company safety metric performance, potential significant injuries or near misses, compliance with safety regulations and our safety culture quarterly by bringing in frontline management and hourly employees to talk about their personal safety experiences.

**By successfully working together, we believe we can achieve excellent health and safety performance and zero incidents.**

403-1

### Occupational Health & Safety Management System

We voluntarily implemented an occupational health and safety management system to enable our employees and contractors to operate safely, efficiently and in compliance with Federal, State and local laws and regulations. We regularly review and amend the management system to ensure continuous improvement. We also compile and align our OHS data to Occupational Safety and Health Administration (OSHA) Occupational Recordable Incident Rate (ORIR) and Lost Time Injury Frequency Rate (LTIFR) formulas.

Our journey to zero injuries requires building and maintaining a sustainable and positive safety culture through leadership, employee engagement and foundational programs and practices. Our OHS Management System provides the framework to execute our safety strategy and achieve a zero accident and injury culture. Under our Health and Safety Charter, we hold all employees and contractors to the same high standard of safety accountability for themselves, co-workers and the communities we work in. We engage all management and hourly (union/non-union) employees in our safety management system through our Certified Safe Worker program and Near Miss reporting program. We expect everyone to engage in the OHS programs and encourage our employees to provide feedback, no matter their level within the company.

To identify and prevent safety risks, we conduct injury analyses, determine trends and implement preventative or corrective actions processes. For example, our analyses indicate ergonomics and body mechanics as our most common risk and type of injury. Therefore, we place a significant focus on the education and prevention of musculoskeletal injuries.

### Safety Strategy Zero Incidents & Injuries



403-2

### Hazard Identification

To identify hazards and assess risks before work begins, employees conduct daily safety toolbox talks and pre-job safety briefings. These briefings give employees time to step back, think about and plan the work that needs to be performed; identify safety hazards; and formulate strategies to mitigate or minimize these hazards. Also, supervisors and employees conduct job site inspections and observations to identify potential safety hazards and provide feedback on safe/unsafe behaviors.





## Indiana American Water Wins AWWA's National Utility Safety Award

Indiana American Water won the Wendell R. LaDue Class III (100–500 employees) Utility Safety Award from the AWWA for performance in 2018. The award, established in 1919, recognizes distinguished water utility safety programs annually.

Indiana American Water earned this award in recognition of its employees' commitment, involvement and accountability to working safely and preventing injuries. In particular, Indiana American Water was recognized for its progress toward a zero injury culture and increased employee engagement and empowerment resulting from actively involving the company's workforce in finding safety solutions.

"There is nothing more important than ensuring our employees make it home every day in the same condition that they come to work," said Indiana American Water President Matthew Prine. "We appreciate our employees' dedication to working safely and are honored to accept this award on their behalf."

## Incident Investigation

To uphold our best practices and high-performance safety cultures, we investigate all safety incidents and document the root cause and corrective actions. The requirement is to complete the initial investigation within three business days of the occurrence and implement interim and/or permanent corrective actions.

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**Since inception, over 18,000 near misses have been reported. Through July 2019, more than 99% of corrective actions were completed within 30 days.**

.....

## Near Misses

We empower our employees and contractors to report near miss safety incidents anonymously via phone to our Security Hotline, through a personal computer or a tablet/smartphone proprietary Safety App. Our management team investigates and implements corrective actions to prevent potential future injuries. We monitor near misses and associated corrective actions and report summaries to leadership on a monthly basis, and to the Safety, Environment, Technology & Operations Committee on a quarterly basis, while also expecting employees to take immediate mitigating corrective actions. As a company, the annual corporate goal is to complete 97% of these corrective actions within 30 days of the incident. Since inception, over 18,000 near misses have been reported. Through July 2019, more than 99% of corrective actions were completed within 30 days.

403-6, 403-3

## Occupational Health Services

To support and encourage health and wellness outside of the workplace, American Water employees have access to our wellness program, Healthy Solutions. In January 2020, we will be enhancing our current program to provide an interactive and individualized wellness portal providing integrated tools focused on Physical, Emotional, Financial, Safety and Community Health. Program members and their families can take confidential health assessments and benefit from integrated tools to provide a holistic view of overall health and wellbeing to achieve their health goals.

Beginning in January 2020, our Corporate Headquarters in Camden, NJ will provide employees access to a Health Center. The center will be physician-driven, providing primary care, urgent care, condition management, and preventative screening services. For our other locations, we utilize and partner with local clinics for similar services.

To take care of our employees, we use Travelers for Industrial Hygiene (IH) testing, ergonomic training and evaluations and more. Many of our sites utilize routine physical therapist visits who provide guidance on ergonomic questions and concerns, conduct observations and provide training and coaching.

Additional resources at our Corporate Headquarters location include an on-site 24/7 fitness center, where employees have the option to participate on a membership basis for a nominal monthly fee. The fitness center is staffed daily by our partners and offers cardio and strength training equipment, daily classes, full locker rooms with showers, and gender-neutral locker rooms. Employees are also encouraged to use alternative forms of transportation to commute to work, and the fitness center hosts a bicycle storage room to help facilitate alternative commuting and promote wellness both inside the gym and out.



403-5

## Occupational Health & Safety Training

OHS is necessary for a safe working environment and is essential for the overall well-being of our employees. At American Water, every employee—regardless of job category classification—receives the training they need to perform their jobs safely and successfully. We strive to provide training for employees through instructor-led sessions or on-line trainings through our LEARN system.

Management supports employee-led safety programs and understands their importance to driving safety improvements across our company, including our union employee-led training program, Systems of Safety, in partnership with Power for America and the Utility Workers Union of America (UWUA). This training is a unique union-developed, employee-focused program that encourages communication and collaboration on safety related events between management and employees. The program exemplifies our safety strategy of empowering employees and fostering a collaborative environment focused on zero incidents.

403-4

## Communication

To promote worker participation, involvement and communication, we have local safety committees across our footprint that are inclusive of both front-line and management employees that meet at least monthly.

When developing our OHS management system, we solicited input from union representatives and employees at all levels. To keep employees up to date on OHS events and developments, we provide consistent communication to our workforce. Our communication strategy employs multiple approaches, including a weekly safety video on incidents, near misses, new equipment, tools, Personal Protective Equipment (PPE), technology and best practices. We distribute the video across our entire organization and track viewership numbers. Throughout the business, managers and supervisors also have daily, weekly and monthly safety meetings to discuss and listen to employee concerns and feedback.

Splash Points (our weekly emails) and Splash TV are two other ways we constantly communicate safety. Splash Points highlight safety accomplishments, incidents and new equipment, tools, PPE and technology developments across the organization. Similarly, Splash TV communicates safety topics through rotating slide shows and videos shown throughout the day in central locations at most of our operating centers. Lastly, we host bi-monthly leadership conference calls that include our Executive Leadership Team, state and business presidents, Operations Vice Presidents, Engineering, functional leads and safety professionals. The leadership conference call reviews safety performance, communicates key safety information, reviews new policies and practices, discusses safety related events of mutual concern and receives feedback from Operations.

## Enterprise Security Risk Management

As a company that provides water and wastewater services, the protection of our facilities, technology systems and customer and employee information is a top priority and focus. Our goals and focus of our program are:

- Ensure the cybersecurity of our operational technology systems;
- Safeguard the physical security of our employees, facilities and assets;
- Maintain compliance with security and data privacy regulations; and
- Provide support and leadership to our operations teams in emergency response and business continuity activities.

Our security team conducts regular internal security reviews and partners with the Department of Homeland Security (DHS) on external security assessments, using the results to develop improvement initiatives and further enhance security controls of company assets and systems. Central to our protection model is our advanced 24/7 Integrated Operations Center (IOC). The IOC monitors American Water's security and technology systems; continuously tracks weather alerts, security threats and intelligence; and serves as a key collaboration point for operations, leadership and functional teams.

### Risk & Resilience Assessments

As required under the America's Water Infrastructure Act of 2018, we are in the process of completing detailed risk assessments and mitigation plans for all our public water systems that serve a population of at least 3,300. We are using an "all hazards" approach to risk assessment based on the methodology outlined in the AWWA J100 standard. Through this approach, our assessments incorporate various risk scenarios, which consider events such as extreme weather, source water contamination and malevolent threats. These assessments help us identify potential solutions to manage identified risks.

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**As a company that provides water and wastewater services, the protection of our facilities, technology systems and customer and employee information is a top priority and focus.**



# 80K

IN 2018, THE COMPANY DEDICATED APPROXIMATELY 80,000 HOURS TO SAFETY TRAININGS.

**Cyber & Digital Security**

Technology solutions are vital to reliable and resilient water systems. For that reason, cybersecurity is core to our vision of resiliency and sustainability. As we continue to implement intelligent water and wastewater systems, we ensure that industry-leading cyber controls are designed, built and integrated into all aspects of our technology. These controls protect our existing systems, and enable the implementation of secure innovation. Enhancing the customer experience while safeguarding the integrity of company information and systems is our security mission. Our cybersecurity program is consistent with industry best practices, including NIST Cybersecurity Framework and AWWA Process Control System Security Guidance for the Water Sector.

**Training & Exercises**

We have security awareness employee trainings for physical and cybersecurity risks, incident response and emergency preparedness. This training reinforces the shared responsibility for security with all employees, contractors and visitors, and supports a safe and secure work environment. Although we work hard to prevent incidents from happening, we must also prepare for them. Practice exercises are a powerful way to bring solid planning and years of experience to bear on the new and diverse challenges we face. We hosts dozens of preparedness exercises across our business annually, while also participating in regional and national level exercises with state and federal partners. In addition to our state level operations, our Executive Leadership Team and Board of Directors also engage in these exercises.

Not only do these activities enhance readiness, they often identify opportunities for increased operational efficiency. We have established a business continuity framework across the company, bringing functional and operational teams together for the purpose of reducing risk and enhancing resiliency. As part of the framework, we adopted the nationally recognized National Incident Management System, which enables unified emergency response and close, effective coordination with emergency management in the communities we serve. We also participate in the Water/Wastewater Agency Response Networks by responding to emergencies (delivering water, loaning equipment, etc.) or receiving aid from other water purveyors in case of emergencies.

**Partnerships & Leadership**

Demonstrating external leadership and fostering effective partnerships is key to our internal success and to making improvements to security across the water and wastewater sector. We partner with environmental organizations, public service commissions, state fusion centers, the DHS and Federal Bureau of Investigation to share information and promote security best practices. We also take a leadership role in advancing security and resiliency of the water and wastewater sector through participation in key working groups, such as the Water Sector Coordinating Council (WSCC). Together with other utilities and the U.S. EPA, we collaborate in a public-private partnership to plan and implement programs aimed at achieving a common goal.



50% 

50% REDUCTION IN WORKPLACE INJURIES SINCE 2013

103-3

**OUR PERFORMANCE**

We are dedicated to consistently improving our OHS performance. We analyze our OHS data to look for trends and common injuries, perform a root cause analysis, and then implement improvements following the Plan, Do, Check, Act principle. Our ultimate goal is zero employee and contractor incidents. We set several annual goals to track our improvement:

1. Reduce our recordable injury rate and days away, restricted or transferred (DART) rate by 20% from 2018 results.
2. 97% of near misses identified, reported and mitigated within 30 days of their occurrence.
3. Our contractors to perform at the same ORIR or better.
4. Complete all potential Serious Injury or Fatality incident corrective actions within 30 days across the business.

403-9, EEI 7.5.1, EEI 7.5.2, EEI 7.5.3, EEI 7.5.4

**Employee Safety Performance**



We track numerous health and safety metrics; see 403-9 in the GRI Content Index for details.

As a result of our continued focus on safety, we have made significant progress towards our zero injuries goal, reducing workplace injuries by 50% over the past five years, and our 2018 safety performance was the best in our recorded history. To date through July 2019, we have further reduced our recordable injury rate to 1.06, approximately 60% better than industry average.

103-1

# Talent Attraction, Engagement & Retention

## WHY IT MATTERS

We recognize the shifting workforce dynamics and the increasing importance of training, developing and recruiting top talent. With a large percentage of our employees eligible for retirement, 32.5% in the next five years, we must focus heavily on transferring institutional knowledge, closely monitoring and adapting succession planning and pursuing recruitment and development strategies to attract qualified talent.

Equally important, we must continue to embrace and promote an inclusive and diverse culture to drive innovation and growth, and attract and retain the best talent. We promote a company culture of being comfortable with one's self, allowing everyone to constructively challenge ideas and raise concerns. As a company that serves diverse communities, we respect those community differences and strive to reflect the communities we serve.

We will continue making inclusion and diversity a top priority in our recruitment efforts. Also, as we expand our business and compete for top talent, we will focus on continuing to provide strong benefits and an inclusive work culture to encourage retention. Our strategy is to continue to be people powered and drive our values. We know that current and potential employees desire to work for a company that is "doing good." American Water is that company.

103-2

## OUR APPROACH Responsibility

American Water's Senior Vice President of Human Resources (who is a member of our Executive Leadership Team) oversees Talent Attraction, Engagement and Retention practices and progress. Two main groups are tasked with managing Talent Attraction, Engagement and Retention: Talent Acquisition and HR Operations.

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**American Water's Inclusion and Diversity Advisory Council, comprised of three executives and 10 cross-functional employees, support all people leaders to lead with inclusion.**

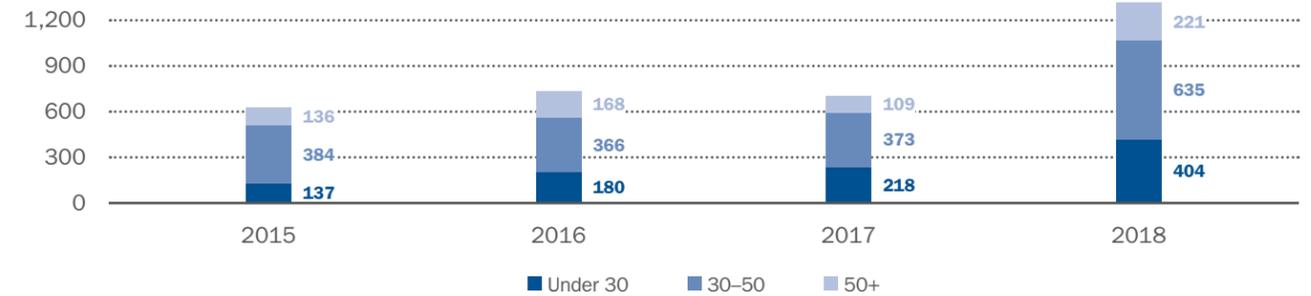
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## Leadership on Diversity

At American Water, Inclusion and Diversity is not a department. Rather, it is an expectation that all leaders lead with inclusion and diversity. To assist them, we have an Inclusion and Diversity Advisory Council that is led by three executives: the Vice President, National Government Affairs and Community Development; Vice President, Human Resources Operations; and a division president. A Human Resource Liaison, communications representative and eight employees representing different geographies and backgrounds complete our Inclusion and Diversity Advisory Council.

401-1

## Employee Hires by Age Group



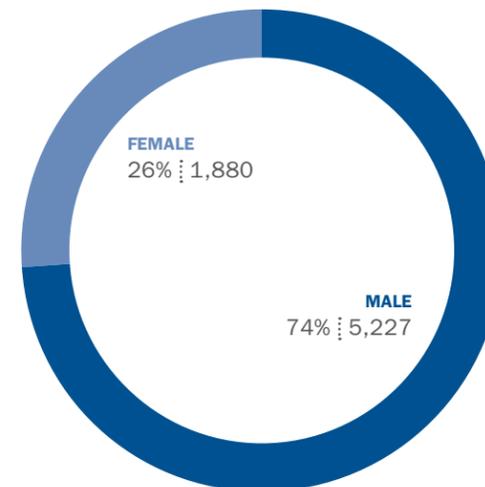
The Inclusion and Diversity Advisory Council oversees the formation of employee focus groups to identify a baseline for improvement and also meets with other inclusive companies to generate recommendations for our inclusion and diversity efforts. Once focus areas are identified, they receive Executive Leadership Team approval and socialize the focus areas with business leaders across the company.

We provide our regulated utility presidents and functional leaders with a monthly dashboard, including a snapshot of open positions, number of positions filled in the last month and year-to-date, age of requisition, internal vs. external hires, employee referral rates, candidate diversity, diversity in promotions and diversity of hires.

Everyone at American Water plays an important role in creating an inclusive workforce. Therefore, in 2018, we asked our employees what makes them beautifully different. Our "Beautifully Different" video includes diverse employees from across the company sharing what makes them unique. In 2019, the Inclusion and Diversity Advisory Council will solicit Inclusion and Diversity Champions to serve as liaisons with local workforces.

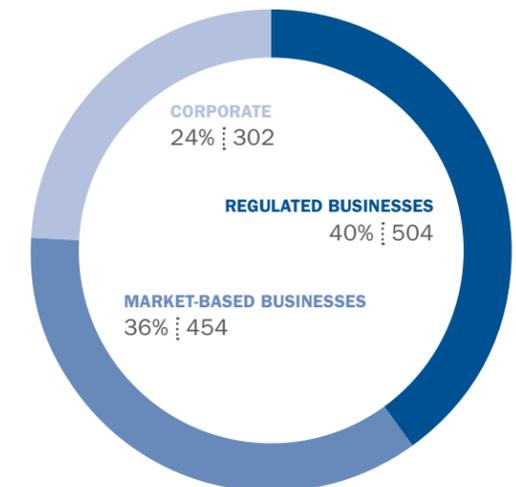
102-8, EEI 7.1

## Gender Representation of Employees in 2018



401-1, EEI 7.1

## Talent Acquisition: New Hires in 2018



401-2

## Compensation & Benefits

We aim to be an employer of choice. We provide a comprehensive compensation program, designed to recognize our people and the vital roles they play in our success, with all of our employees, including union-represented, participating in the short term Annual Performance Plan.

All employees who average 30 hours or more per week receive full-time benefits and full-time employees pay only 15% of the total cost of medical, dental and vision. We offer our non-union employees averaging 20 to 30 hours per week medical, dental and vision coverage at 50% of the total cost.

American Water offers the following benefits to eligible employees:<sup>1</sup>

- Medical Plans (PPO & CDHP) w/Prescription Drug coverage
- Dental
- Vision
- Health Savings Account (HSA)
- Health Care Flexible Spending Account (FSA)
- Dependent Care Flexible Spending Account (FSA)
- Voluntary Benefits
  - Critical Illness
  - Hospital Indemnity
  - Accident Insurance
  - Pet Insurance
- Disability (Short-Term and Long-Term)<sup>2</sup>
- Employee Assistance Program (Carebridge)
- Wellness Program
- Commuter Benefits
- Life Insurance<sup>2</sup>
- Tuition Reimbursement Program<sup>3</sup>
- 401(k) Savings Plan with Roth Option
- Defined Contribution Account (5.25%)
- Employee Stock Purchase Plan
- Defined Benefit: Pension<sup>4</sup>
- Post-Retirement Medical<sup>5</sup>
- Retiree Medical Reimbursement Account/VEBA<sup>6</sup>
- Annual Performance Plan (APP) bonus

### DOWNLOADS

- [Inclusion & Diversity](#)
- [Employee & Community Engagement](#)
- [Americanwaterbenefits.com](#)
- [Beautifully Different](#)

Additional employment benefits include holiday, vacation and sick time that is at or higher than industry best practice. At American Water all employees are provided:

- 14 holidays (including floating holidays)
- A minimum of 10 to a maximum of 30 vacation days based on years of service
- 10 sick days

Beginning January 2020, we will be providing two weeks Paid Leave that employees can use to bond with a new child following the birth, adoption, or foster placement, or to take care of a sick family member. For more information about American Water's benefits, please see [www.americanwaterbenefits.com](http://www.americanwaterbenefits.com).

<sup>1</sup>Benefits are for FTEs; contract employees do not qualify for corporate benefits

<sup>2</sup>Full-time employees only

<sup>3</sup>Employees working 15 or more hours per week only

<sup>4</sup>Hired prior to 1/1/2006

<sup>5</sup>Hired prior to 1/1/2002 (non-union) and 1/1/2006 (union)

<sup>6</sup>Union employees only who are not eligible for retiree medical

.....

**Beginning in 2019,  
7,100+ employees have been  
incorporated into the company's  
Annual Performance Plan to  
ensure company and individual  
goals are aligned.**

## Respect & Dignity in the Workplace & Commitment to Harassment-Free Workplace Policies

We have a longstanding commitment to maintain a work environment that respects the dignity and worth of each individual. In keeping with our values, we have zero tolerance for discrimination, harassment or retaliation by or toward any employee, vendor, customer or other person in our workplace. Inappropriate workplace behavior and unlawful harassment are wholly inconsistent with this commitment, and create the potential to damage the company's reputation. We believe our stance on harassment and discrimination allows for a work environment that is free from all forms of discrimination or harassment based on any protected characteristic.

In 2019, the Inclusion and Diversity Advisory Council will collaborate with the Safety Council to open the dialogue about emotional safety, in addition to physical safety. With the rollout of "Promoting a Harassment-Free Workplace" training this year, we developed a video that addresses feeling emotionally safe in the workplace.

Each year, we choose a new focus area to catalyze inclusion practices across the company. In 2018, we introduced our Respect and Dignity in the Workplace Policy and in 2019 introduced our Commitment to a Harassment-Free Workplace. In 2020, we plan to roll out further unconscious bias and inclusion training company-wide with focused training for all employees and advanced training for all leaders. We plan to achieve full implementation of these programs in 2020.

## T&I Career Fair Seeks Candidates with a Can-Do Attitude

In August 2018, more than 80 candidates participated in our Technology & Innovation department's first in-house Career Fair in Cherry Hill, N.J. From seasoned professionals to students preparing to graduate, the event drew potential applicants of all ages, skill levels and backgrounds. As an immediate measure of the success of the career fair, 10 attendees received official offers within 48 hours of the fair.

Technology & Innovation looks for candidates to work in autonomous intelligence, machine learning, big data, geographic information systems, application programming interfaces economy, Java and Python programming.





## Succession Planning

As our experienced workforce reaches retirement—32.5% of our employees are eligible for retirement in the next 5 years—we conduct succession planning with leaders to help ensure we have a pipeline of candidates to fill critical roles within the company, particularly in the operations business area. Over the past year, we instituted quarterly checkpoints with our executive leaders to review succession plans, rather than annually.

During succession planning, leaders review diversity and turnover metrics and assess progress on maintaining a diverse and inclusive culture. Additionally, we create development plans for all candidates within the succession pipeline to make certain our future leaders develop the skills they need to fill critical roles within the company. We also work with our recruiting teams to fill talent gaps identified during succession planning.

## Leadership Succession Planning

A primary responsibility of the Board of Directors is planning for the succession of our CEO and other executive officers. The primary goal of succession planning process is to identify executive talent within the company and provide for continuity of effective leadership that can fulfill the long-term requirements of our business. The planning process includes a determination of key competencies and desired experiences for the particular role, an identification and assessment of internal candidates, development plans for internal candidates and, as appropriate, identification of external candidates.

Consideration of executive succession planning (especially for the CEO role) occurs throughout the year at Board meetings and involves regular interaction between and among the Board, the President and Chief Executive Officer, the Senior Vice President, Human Resources and other members of management, as appropriate.

## Recruitment

As a values-based organization, recruiting employees who embody our values is a priority. As a company that serves diverse communities, we understand the need to respect those differences and reflect the communities where we live and operate.

Our objective is to foster an environment where individuals from diverse backgrounds are understood and respected, such that all employees feel welcome and comfortable and all employees have equal opportunity. We are committed to maintaining diversity among our Board of Directors, Executive Leadership and Senior Leadership Teams, along with our entire workforce.

## Investing in Talent Pipeline

To strengthen our talent pipeline and provide employment opportunities for people in our communities, we partner with several organizations throughout our footprint to encourage students of all ages to pursue STEM careers. Our communications team leads several initiatives at middle schools to instill interest in the sciences. Additionally, our Talent Acquisition team partners with local colleges and universities to develop internship and co-op programs. Our engineering department has an especially strong co-op program that encourages local engineering students to gain real-world experience and excite them about the work we do. At our Camden headquarters location, we are working to expand this program and solicit additional local talent and community partners. From 2017 to 2018, we worked to improve our internship program by creating a more holistic and inclusive internship experience. By 2020, we plan to start our first cohort of interns in our more collaborative and comprehensive program.

## Attracting Diverse Candidates

Diversity is always included as a focus on every job requisition and building a candidate pool. We have partnered with several organizations to increase our female candidate pool. Specific focus is being paid to job opportunities that are non-traditional for female candidates such as plant operators, distribution employees, etc. Some of these partnerships include:

- WV Women Work, an organization that trains women in non-traditional roles;
- MSEP, targeting military spouses;
- Fairygodboss Partnership & postings which target women in STEM roles; and
- Highlighting women in our workforce on LinkedIn and other social media platforms.

	2016	2017	2018
YOY Transfers/Promotions Filled by Minority, Female, Veteran or Disabled Candidates	54.2%	50%	52.6%
Job Requisitions with Diverse Candidate Pool	88%	89%	86%



OVER 52% OF TRANSFERS/  
PROMOTIONS FILLED BY  
MINORITY, FEMALE, VETERAN  
OR DISABLED CANDIDATES

### Development

We are committed to providing learning opportunities and work experiences to equip all our employees with the right tools, skills and competencies to operate safely and effectively. We operate a Talent Management Center of Expertise to help develop and deploy programs that attract, motivate, develop and retain talented employees, and help foster a learning culture over time. The Talent Management Center of Expertise has three focus areas: Talent Acquisition; Learning and Development; and Organizational Development, which we implement through the HR departments that are structured in parallel with these focal areas.

Because we are people-powered, we provide a wide range of developmental opportunities to enable employees to reach their fullest potential. We require every employee, including our union-represented employees, to receive a minimum of 20 hours of training each year.

All of our non-union employees have a development goal each year. Additionally, we work closely with labor unions to learn how we can collaborate and improve our training effectiveness. As an example, we have been working with the Utility Workers Union of America (UWUA) and Power 4 America (P4A), a training trust fund created by UWUA to help ensure that our employees are prepared for the potential dangers that are inherent in our work. Through P4A, we have provided training for over 1,200 employees in various operational safety topics. Please see our [Occupational Health & Safety](#) section for more information on company and union-led safety training.

**We require every employee, including our union-represented employees, to receive a minimum of 20 hours of training each year.**

### Performance Reviews

Annual competency models help ensure all employees, people leaders and senior leaders understand the skills and behaviors needed for success within their roles. We offer training and development programs related to each competency within the model, which provides employees with the opportunities they need to develop key skills and prepare for future roles within the company.

Ongoing conversations with our employees are vital to our development programs and performance management processes. These direct conversations at mid-year and year-end enhance professional development, clarify job responsibilities and performance goals and expectations, and provide a fair and equitable basis for decisions on compensation. Supervisors and employees are encouraged to have ongoing discussions about performance and development goals, and career aspirations throughout the course of the year.

We provide annual and mid-year performance reviews for all non-union employees. During the performance review process, employees have the opportunity to create meaningful performance and development goals, check-in on their progress during the mid-year checkpoint and have a final review discussion during the annual review. In 2018, all 3,621 eligible non-represented employees (representing 51% of our total workforce) received an annual performance review. Our annual performance plan aligns our company goals to individual performance. Beginning in 2019, all 7,100+ employees have been incorporated into the company's Annual Performance Plan to ensure company and individual goals are aligned.



3,621 

IN 2018, ALL 3,621 ELIGIBLE NON-REPRESENTED EMPLOYEES (REPRESENTING 51% OF OUR TOTAL WORKFORCE) RECEIVED AN ANNUAL PERFORMANCE REVIEW.



## Leadership Development

We call our managers People Leaders and we invest in them to make sure they can operate exceptionally well and take care of our people. There are two main programs to develop People Leaders: the Essentials of Leadership program for front-line employees and Leadership in Action for mid-level groups. For employee director level jobs and above, there are several program offerings targeted at developing senior leader competencies from a variety of third party vendors.

The People Leader programs support and align with our vision, values, strategies, core competencies and key drivers for success. We utilize a competency-focused approach to equip leaders to more successfully coach, engage and develop their team members. The program brings together leaders from across the organization to learn, share experiences and forge relationships that support their success in current and future leadership roles.

Since the launch of the programs in 2016, 915 employees (approximately 13% of our total employee population) have participated in these two leadership programs.

## Tuition Reimbursement

Our tuition reimbursement policy, effective January 1, 2018, allows for up to \$10,000 reimbursement per employee, per year, for education costs approved by the company. These funds may be used toward a degree program. This program enhances employees' professional development and their skills and knowledge related to American Water's business. In 2017, 163 employees took advantage of this program and in 2018, that number was 176.

## Engagement

In 2017, a large percentage of employees, 86%, completed an employee culture survey, providing valuable feedback to make our great company even better. We are proud of the high percentage of employee engagement through both the annual survey and regular correspondence. Culture Action Teams, comprised of employees from across the company, used the survey results to identify opportunity areas and solutions to support a positive workplace culture. We did not administer a culture survey in 2018 to allow employees to continue implementing the identified Culture Actions from 2017.

In 2019, we will implement a comprehensive culture survey, designed to have shorter, more frequent touchpoints with employees. Additionally, we will implement an employee Net Promoter Score (eNPS) to gauge employees' likelihood to recommend American Water as a place to work.



103-3

## OUR PERFORMANCE

We have received various awards and recognitions demonstrating our accomplishments as an inclusive employer and employer of choice.

- 2019 Military Friendly® Bronze Employer designation
- Highest ranked utility in Peter Drucker Institute & Wall Street Journal Management Top 250
- Philadelphia Inquirer lists American Water as Top-ranked Company on Diversity, Governance & Transparency
- Environmental Business Journal recognizes American Water for Business Achievement
- United Way awards American Water employees the 'Leading the Way Award' for generosity
- American Water receives nine Directors Awards from the EPA's Partnership for Safe Water for Excellence in Water Quality
- Kanawha Valley Plant wins 1st place in the WV-AWWA Tap Water Taste Test

We carefully monitor our employment statistics as one measure of our management effectiveness. As of 2018, our employee turnover rates remain low, despite our aging workforce and on average all employees exceed the training expectation amount. We additionally began tracking Regrettable Turnover Rates in 2018, representing employee departures whom the organization would otherwise hope to retain, and realized 1.8% regrettable turnover during that period.





NEW IN 2019

BARRON'S

#23 ON BARRON'S 100 MOST SUSTAINABLE COMPANIES; HIGHEST RANKED UTILITY



TOP 100 BEST FOR VETS EMPLOYERS BY MILITARY TIMES

DEI BEST PLACE TO WORK FOR DISABILITY INCLUSION 2019  
100% DISABILITY EQUALITY INDEX

TOP SCORING COMPANY ON THE DISABILITY EQUALITY INDEX (DEI)



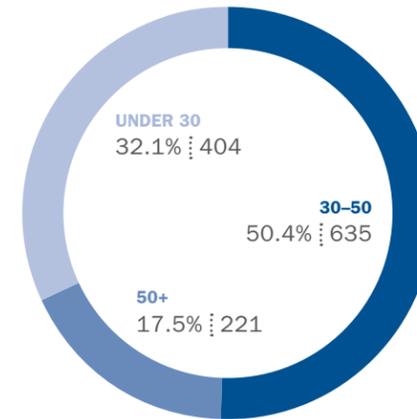
LISTED IN THE BLOOMBERG GENDER-EQUALITY INDEX

## American Water Recognized with Top Score on Disability Equality Index

American Water has been recognized as a top-scoring company on the Disability Equality Index (DEI), the most comprehensive disability inclusion assessment tool designed and embraced by both business leaders and disability advocates. This year, 180 businesses participated in the DEI, and American Water's top score of 100% earned the recognition of "Best Places to Work for Disability Inclusion." The inclusion criteria measured culture and leadership, enterprise-wide access, employment practices, community engagement and supplier diversity.

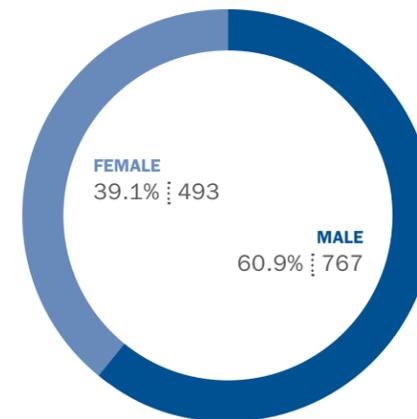
401-1

### Employee Hires by Age in 2018



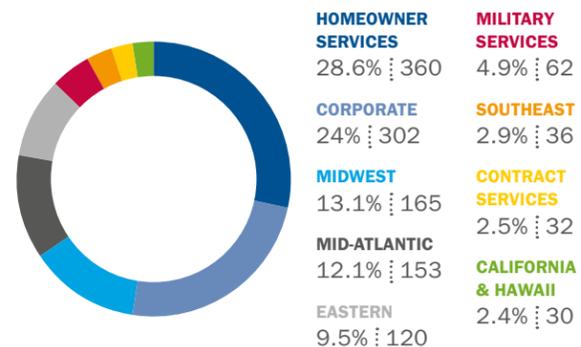
401-1

### Employee Hires by Gender in 2018



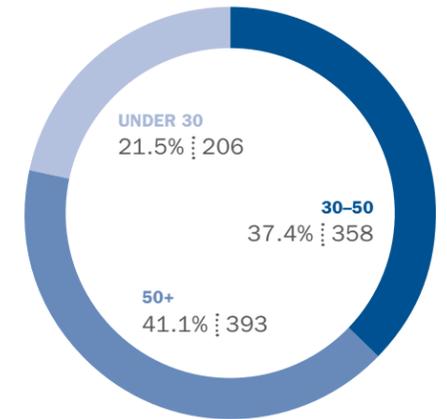
401-1

### Employee Hires by Business/Region in 2018



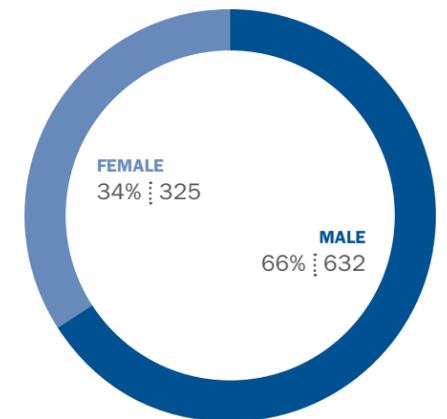
401-1

### Employee Turnover by Age in 2018



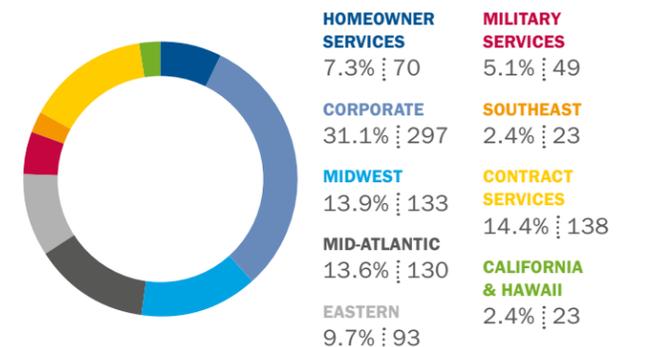
401-1

### Employee Turnover by Gender in 2018



401-1

### Employee Turnover by Business/Region in 2018<sup>1</sup>



<sup>1</sup>Amounts may not sum to 100% due to rounding.

# DOING GOOD FOR OUR CUSTOMERS



Customers are at the center of everything we do and every decision we make. They expect and deserve the highest quality water whenever they need it and we are continually working to improve water quality, affordability and customer experience.

103-1, 103-2

## Customer Experience

### WHY IT MATTERS

As a water provider, our service is deeply embedded in our customers' daily lives and is a necessary component to healthy and sustainable living. As a result, we are customer-obsessed. We put our customers at the center of everything we do. Our history is built on reliably supplying clean water and providing an exceptional user experience. Our customers expect the highest possible level of service at all times, whether that be clear, concise and understandable bills; quickly handling customer inquiries and service requests; or expedited turnarounds during service outages or emergencies. We strive to provide every customer with an outstanding experience, making things easy for each customer and to provide safe, clean, affordable and reliable water and wastewater services to the communities we serve.

In early 2019, we established a dedicated Chief Customer Officer to execute our commitment to providing outstanding customer experience. By listening to customers, we aim to achieve customer satisfaction and service quality ratings in the top quartile of service industries beyond the water and wastewater industry. We have a multiyear plan to enhance technology and innovation by leveraging secure artificial intelligence to better serve our customers, as well as by using online customer communities for immediate input and mapping of our most frequent customer interactions. That way, we can give customers the service they want, in the way they choose.

.....  
**“Our goal is to have an Amazon-like experience for our customers”**  
**– Susan Story**  
.....

### Policies

To provide the exceptional experience our customers expect and deserve, our established policies put our customers first. Our Customer Service program includes a training manual with policies and procedures to set up accounts, handle and escalate calls, address billing options and more—everything that touches on the customer experience.

We provide training and thorough guidance to our customer service employees and third party representatives to help ensure exceptional and consistent customer experiences. We expect all customer service representatives to follow our guidelines, which offer step-by-step best practice guidance for supporting a wide range of customer requests and expectations for customer-centric metrics for success.

103-2

### OUR APPROACH

To provide the best experience possible for our customers, we developed extensive customer relationship practices and systems. We provide multiple communication options so our customers can interact with us in the manner they prefer: via direct mail, online, phone or even in person. Last year, we expanded our customer experience initiative, making it easier for customers to do business with us. We enhanced our service quality through innovative technology and we continue to make needed infrastructure investments, while also implementing operational efficiency improvements to keep customer bills affordable.

## Responsibility

As a customer-obsessed company, our Board of Directors oversees and is actively involved in Customer Experience. Our Customer Experience and Customer Service organizations report to our Chief Customer Officer who reports on progress, new customer initiatives and building a customer-obsessed culture with the Board of Directors, both at the Safety, Environmental, Technology & Operations Committee as well as Board meetings. Outside of our leadership positions, the Customer Experience Council, formed in 2016, is a committee of employees that helps manage customer experience interactions and opportunities.

## Dedicated Customer & Community Support

In response to customer and community feedback, we implemented a Major Account program focused on our largest customers who have specific needs that vary from our residential customers. Major Account Managers are located throughout our utility companies to provide personalized service to these key accounts and provide them with a single point of contact for all their water utility needs.

In addition to working with our Large Accounts, Major Account Managers and External Affairs representatives interact with local communities to build trusted relationships with the communities we serve.

In certain states, we established Customer Advocacy groups to work with customers at a local level, to enhance engagement and provide feedback to improve our processes for all customers in those areas. Customer Advocacy group feedback helps us coordinate programming and services in local communities based on their needs.

Our Field Service Representatives give customers a chance to have face-to-face interactions, something that occurs daily throughout the footprint. To aid in these interactions, we created a new application called Customer One-View, allowing Field Service Representatives to better assist customers and providing real-time insight into billing and usage data.

## Customer Education

We engage with our customers and communities to enhance knowledge and understanding of important aspects of water and wastewater services, including water quality, the effects of aging infrastructure, climate variability affecting water supply and the pressing need to invest in local water resources and systems.

At the same time, we work to raise public awareness of the true value of water, which is critical to the success of the water industry and its capability to deliver these services sustainably over the long term. Additionally, we encourage and enable customers to educate themselves on water quality matters.

**We want to be the best, and if our customers had a choice as to who serves them, we want them to choose us.**

We post the federally required annual Water Quality Report and a Typical Water Quality Report, a plain language summary that includes Frequently Asked Questions addressing customer service inquiries and allowing customers to search using their zip code.

We maintain a regular dialogue with our customers via our Customer Service Center, satisfaction and service quality surveys, social media, our website, focus groups, open houses, volunteer events and plant tours.

## Innovation & Accessibility

Our goal is to make customer interactions, such as paying a bill or move-in and move-out, as effortless as possible. We want to keep customers engaged and informed about what we are doing. We task our Technology & Innovation teams with improving Customer Experience. They work diligently to provide technology solutions to improve customer experience, such as self service tools based on our customer's preference. Additionally, we use a third party in-call language line that offers translation for as many as 10 different languages to serve the diverse needs of our communities.

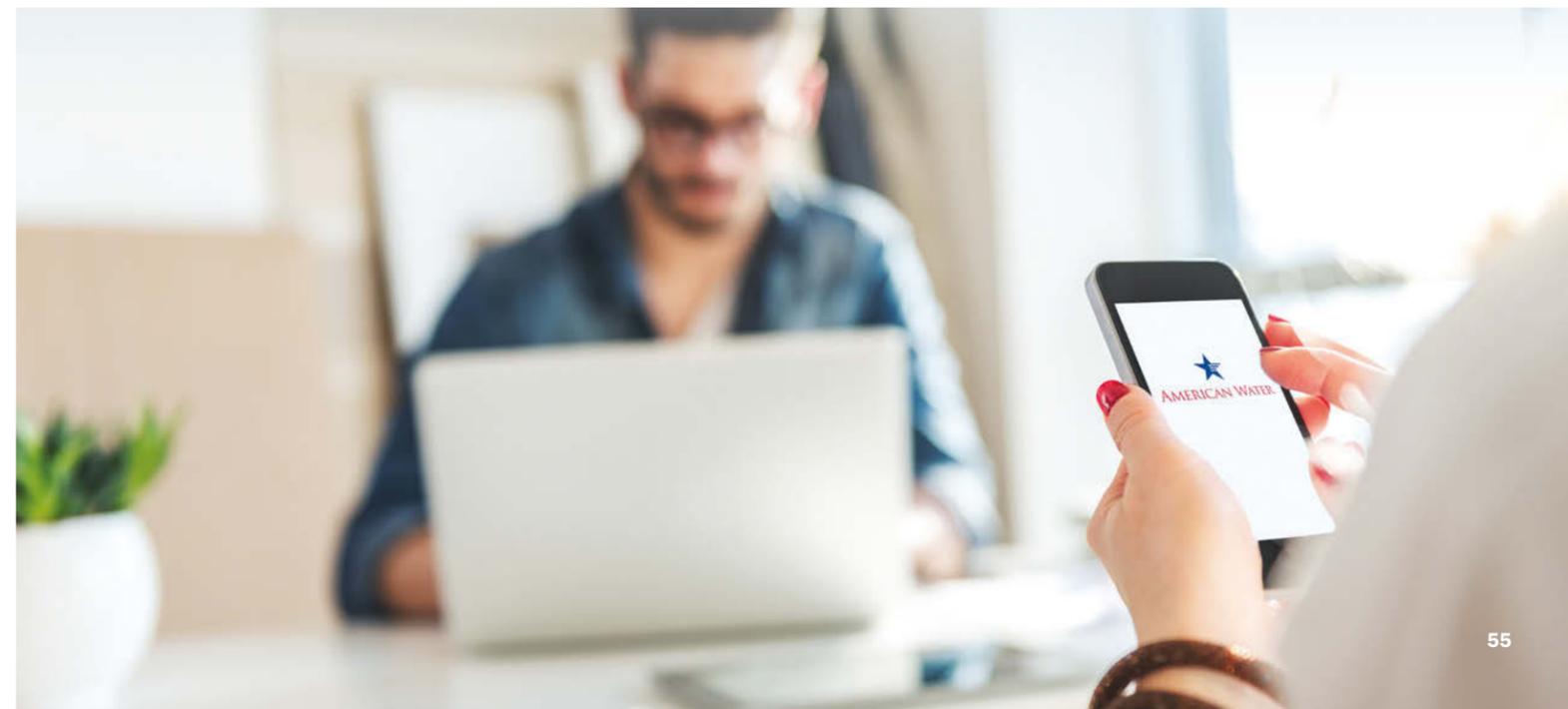
## Customer Portal

In 2018, we began a phased launch of a new customer web portal with increased features; the customer portal will be fully deployed during the latter half of 2019. Our customer web portal offers customers a personalized way to manage interactions. Through the web portal, customers can:

- Track their water use
- Set up a new account
- View and pay their bills
- Enroll in Paperless Billing and Auto Pay
- Check account balances
- Update contact information
- Sign up for service alerts

We aim to create a personalized experience, one in which customers can work with us in the way they prefer, catering the way we do business to each and every customer's preference.

As of July 2019, we have 636,000 customers (approximately 20% of customers) enrolled in paperless billing. This feature provides customers all the same information as customers as provided on a hard copy bill.



## Customer Bill Simplification

Beginning in 2015, we convened a Customer Experience committee and began analyzing the different segments of the business and how they influence customer experiences. In response to customer requests, we spent 2017 and 2018 pursuing bill simplification and resonance. Throughout the redesign process, we used a virtual focus group with more than 2,000 customers who volunteered to participate in surveys and regular engagement sessions with the company. We engaged vendors that handle bills for other companies to glean best in class practices for bill simplification while also providing the information our customers want and need on topics like water use and conservation. Based on these interactions and customer feedback, we presented three model bill options to a customer focus group to determine which model they preferred. With their feedback, in 2018, we rolled out new, simplified customer bills for all the states in which we operate and received positive feedback on the clarity of the improvement.

### Interactive Voice Response (IVR) System

Our Interactive Voice Response (IVR) System gives customers another way to work with us. This system allows us to provide a greater level of service, allowing us to meet customer needs without waiting to connect with one of our customer service representatives. With the IVR System, customers can check their balance, pay their bills, turn off service and coordinate move out/in all within two minutes or less. As a result of implementing the new IVR system, we are seeing a greater than 45% self-service rate, which is higher than industry standards.

### Customer One View

In 2017 and 2018, we worked on and deployed our Customer One View application. This application, created by our front-line employees, provides our Field and Customer Service Representatives clear insight into a customer's billing and usage data and increases their ability to provide onsite or one call resolution.

### Pulse Surveys

Receiving feedback from our customers is vital to improving our customer initiatives and ensuring the experience is the best possible. Through our Pulse Surveys, we can obtain real-time feedback from customers when they interact with our teams in the field, via our customer service center, online or through the IVR system. These surveys help us improve our understanding of how transactions occur, improve our overall service and set better customer expectations. We share survey responses at the field service level followed by managers reaching out to customers when needed and to share feedback with employees, reinforce positive interactions and celebrate successes.

103-3

## OUR PERFORMANCE

Our goal at all times is high quality and reliable service for our customers.

In 2017, we began a three-year plan to deliver an “Amazon-like” experience to our customers. This means:

- Leveraging secure artificial intelligence to predict customers' needs before they ask;
- Using online customer communities to get immediate input before rolling out programs;
- Mapping our most frequent customer interactions and reworking our internal processes to give customers the services they want, the way they want them; and
- Bringing real water solutions to communities across the United States.

Our annual customer-based incentive goal is to achieve the first quartile of customer satisfaction in our annual benchmarking survey. We have 15% of our incentive compensation tied to customer experience performance.

### Key Metrics

To ensure we are providing a strong customer experience, we set and evaluate customer satisfaction goals each year and disclose our performance in our [Annual Report](#). For example, in 2016, 2017 and 2018, we aspired



to achieve customer satisfaction in the second quartile, or better, of a quarterly survey conducted by a third-party firm of randomly selected regulated water and wastewater customers. Each year, we achieved a customer satisfaction rating in the first quartile.

Our current target includes achieving “first quartile” in overall satisfaction based on a quarterly benchmark study where we compare American Water's overall satisfaction to our peer water companies. The first quartile is equal to or greater than 75% of the other peer water companies.

**In 2018, we added 14,000 new customers in the regulated business through closed acquisitions and an additional 11,000 through organic growth. As of June 30, 2019, we have added approximately 28,400 water and wastewater customers through our regulated businesses and entered into agreements to add approximately 38,700 additional customers. As we grow, we continue to uphold our strong commitment to our customers.**

103-1

## Water Access & Affordability

### WHY IT MATTERS

Water is a basic human necessity and we support the United Nations’ declaration of access to clean water and sanitation as a human right, regardless of economic factors. Therefore, water utilities must strive to supply water that is accessible, affordable and high quality to help ensure human health and welfare. The U.S. EPA provides guidance that water affordability should be in the range of 2.5% of a household’s income, and we consistently achieve averages significantly below this suggested guidance. On average, our customers pay less than a penny per gallon for the water they use.

At American Water, we approach Water Access & Affordability in two ways. The first is to provide safe, clean and reliable supply of water to meet our customers’ needs, 24 hours a day, every day. The second is ensuring that the cost of water service to all customers is affordable, which includes implementing ratemaking structures and processes that protect our most vulnerable customers. Protecting all of our customers, no matter their economic status, is vitally important to American Water.

**Water is a basic human necessity and we support the United Nations’ declaration of access to clean water and sanitation as a human right, regardless of economic factors. Therefore, water utilities must strive to supply water that is accessible, affordable and high quality to help ensure human health and welfare.**

103-2

### OUR APPROACH

Our primary focus in addressing Water Affordability is to maximize efficiency. Please see our [Water Use & Efficiency section](#) for more.

### Responsibility

We believe, because water is inherently local, that assuring the accessibility and affordability of our water is ultimately up to our regulated utility companies state Presidents and the Vice Presidents of Operations, supported by our Rates and Regulatory leaders.

### Programs

Where approved by state legislatures or regulatory authorities, we offer customer assistance programs to help financially challenged or disadvantaged households pay for water services. Programs vary by state and include assistance in the form of one-time emergency grants and/or ongoing service charge discounts. Other examples include rebates for water-saving appliances, leak detection kits, free water-saving devices and educational booklets to help customers make their homes more water efficient and reduce water costs.

To help ensure that water is affordable for all customer populations, American Water participates in a number of practices including Low Income Tariffs, Grant Programs and Payment Plans.

## Low-Income Tariffs & Grant Program

In many states, to help promote access to clean water, vulnerable populations are eligible for low-income tariffs. We have low-income programs in 12 states, including California, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, New Jersey, Pennsylvania, Tennessee, Virginia and West Virginia. In Pennsylvania, for example, qualifying households can work with community action agencies to receive up to an 80% discount on their fixed monthly water charges. In most states, other customers subsidize these low-income tariffs.

Additionally, our grant program, funded by employee contributions and shareholders, is available in each state where we operate. To qualify for a grant, customers must have annual household incomes at or below 200% of the Federal Poverty Guidelines and applicants must have made a sincere effort to pay their bill.

### Payment Plans & Deposits

We also offer payment plans to our customers. These plans give customers the option to make smaller payments on their past due balance without penalties. Currently, we are not collecting deposits from our customers.



**AMERICAN WATER HAS LOW INCOME PROGRAMS IN 12 STATES**

103-3

### OUR PERFORMANCE

The cost of water service varies geographically. In West Virginia, for example, challenges posed by terrain and low population density increase prices. Coupled with lower median incomes, water as a cost of annual household income is higher in West Virginia than in many other states. Keeping this in mind, we try to limit rate increases to no more than the Consumer Price Index (CPI) each time, while balancing infrastructure investment needs and protecting water quality. We make every effort to promote Operations & Maintenance (O&M) efficiency, as for every O&M dollar we save, we can increase our infrastructure investment by \$8 with no customer bill impact.

American Water’s average monthly residential water and wastewater bill is approximately 58% below the EPA’s water affordability benchmark for affordability. The U.S. EPA’s benchmark for water and wastewater affordability is 4.5% of median household income, equating to approximately \$226 monthly.

Code	Accounting Metric	2018
IF-WU-240a.1	Average Retail Water Rate for (1) Residential, (2) Commercial and (3) Industrial Customers (per Thousand Gal) <sup>1</sup>	Residential: \$10.24 Commercial: \$7.67 Industrial: \$3.76
	Typical Combined Monthly Water & Wastewater Bill for Residential Customers	\$95.00
IF-WU-240a.3	Number of Residential Customer Water Disconnections for Non-Payment, Percentage Reconnected Within 30 Days	76.37%

<sup>1</sup>The average water rate calculations exclude the states where we operate with Revenue Stabilization Mechanisms (CA, IL and NY).

103-1

# Water Quality & Emerging Contaminants

## WHY IT MATTERS

The quality and safety of the water we provide has a direct impact on our customers and therefore our business; water is the only utility product that we ingest, and we must do everything we can to protect the quality of the water our customers consume. Stakeholders agree that Water Quality is paramount, as high water quality is vital to protecting our customers, fortifying public health and exhibiting environmental leadership. In recent years, public concern regarding water contaminants has grown significantly. This is driven by recent crises such as the lead contamination of the drinking water supply in Flint, Michigan and Chicago, Illinois; harmful algal blooms that produce cyanotoxins and require Do Not Drink advisories; and increases in plastic particulates, pharmaceuticals and chemicals associated with old infrastructure entering the environment and water supplies. Water utilities face increasing pressure and regulation to effectively manage water quality and emerging contaminants.



### DOWNLOADS

[Emerging Contaminants One-Pagers on: Lead, Legionella, PFAS and Cyanotoxins](#)

[10-K \(page 16\)](#)

103-2

## OUR APPROACH

To help ensure our customers can trust the water we bring to their homes and businesses, we develop and execute extensive quality practices that go beyond baseline regulations and standards.

While the U.S. government, state governments and environmental and public health regulators set and enforce standards in our industry, we take responsibility for the quality of the water that flows to customers' properties. We are at the forefront of monitoring and controlling microbial, chemical and radiological contaminants, and we consistently perform better than drinking water compliance standards and ahead of regulator-established deadlines.

We are experts in water quality, testing and treatment. We perform more than one million water quality tests per year at our water-testing laboratories and other facilities. We consistently outperform state and federal drinking water and wastewater standards in comparison to industry averages. We have a reputation among both internal and external stakeholders for maintaining water quality significantly better than regulatory standards and guidelines. We do well, by doing good.

## Key Emerging Contaminants

Name	What is it?	What are the risks?	How does American Water manage this contaminant?
Cyanotoxins	Naturally occurring microorganisms (also known as blue-green algae).	High concentrations can form harmful algal blooms (HABs), which can have negative environmental and health effects, leading to Do Not Drink orders for municipal water supplies.	We use a combination of measures including monitoring, managing supplies, deploying mixing technology and in some reservoir locations, deploying the latest ultrasonic technology to prevent HABs in water sources.
Lead	Lead is generally not found in water supplies leaving water treatment plants but can leach into water from premise plumbing. Sources of potential lead exposure include lead service lines (LSLs), lead solder and lead-bearing plumbing fixtures present.	Elevated levels of lead in drinking water pose a potential risk, particularly to children and fetuses, possibly causing developmental issues.	Our lead mitigation strategy includes multiple layers. First, we treat water to be of good and stable water quality. We routinely monitor water quality through the distribution system. We continually communicate, educate and work with customers on steps to minimize their potential exposure to lead. With our expertise, we work with state legislatures, policy-makers and other stakeholders to endorse the comprehensive replacement of LSLs to protect public health.
Legionella	Legionella bacteria exist naturally in soils and water, but their levels can be especially high in man-made building water systems where warm water stagnates in the absence of adequate disinfectants.	In North America and Europe Legionella pneumophila is the most common cause of human disease. In severe cases (known as legionnaires disease) pneumonia can occur with death rates from 2.9%–33%.	We follow all guidelines for treating and disinfecting drinking water and accompany this with regular sampling to monitor overall water quality. In addition, through external funding, we are leading various efforts to develop sampling, detection and communications strategies for Legionella and other opportunistic pathogens.
PFAs	PFAs are a class of compounds that include perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). These are manufactured chemicals used in various consumer products for their nonstick properties. PFAS have been detected at elevated concentrations in both ground and surface waters.	PFOA and PFOS have been linked to various toxicity issues and, once detected, are difficult to remove from the environment.	We have a cross-functional team focused on the scientific and regulatory framework related to PFAS detection and technologies for removal. Our research group is active in externally funded projects related to the detection, occurrence and removal of PFAS compounds.

## Policies

Our water and wastewater systems comply with federal and state regulations developed under the Safe Drinking Water Act, the Clean Water Act, the Clean Air Act and other statutes. We follow all EPA monitoring requirements for emerging contaminants. To track our environmental compliance and stewardship efforts, we adopted a comprehensive Environmental Policy that covers water quality and safety and promotes the effective use and stewardship of the natural water supply.

We also collaborate with U.S. EPA, research foundations and universities to examine where issues may exist in our systems and the policies that can help manage potential issues.



## Responsibility

We manage Water Quality & Emerging Contaminants through three separate but interconnected entities: Corporate, our internal audit program and our state utility companies. State utility companies are our first line of defense for water quality. Our employees understand local regulations and dynamics, helping our states make the best decisions for ensuring water quality. Our Corporate program is our second line of defense, which includes our technical expertise on water quality and emerging contaminants and additional levels of governance and leadership. These additional resources allow for increased consistency and accountability to ensure safe and reliable water and wastewater service to customers. The last line of defense is our internal audit program, whereby employees audit our operations and report at least quarterly to our Board's Safety, Environmental, Technology & Operations Committee.

We also link all employee performance assessments to water quality by comparing our water quality numbers to our industry peers.

SASB IF-WU-250a.2

## Drinking Water

Our operational practices outline how and when states will develop their water-sampling schedules to test for contaminants. Each month, the Vice President of Operations in each state certifies the results of these samples and reports them to his or her respective state President and our Director of Environmental Compliance and Stewardship. These layers of review help us maintain our rigorous quality standards and give our customers confidence that the water they consume is our best.

We also participate in the Partnership for Safe Water, the U.S. EPA's voluntary program to meet more stringent goals for protection against microbial contamination through treatment optimization, and are proud of our accomplishments:

- Our facilities account for approximately 20% of the participating plants nationwide (approximately 90 plants out of about 400).
- Our facilities represent approximately 30% of the treatment plants receiving the program's Phase III Director Award (69 plants) with the majority of our systems having sustained the award for 10 Years (62 plants) or 15 Years (58 plants). Three plants received the 20-Year Award in 2018.
- Pennsylvania American Water accounts for almost 25% of the plants receiving the President's Award (nine plants out of 41 total).
- AWE's Military Services Group (MSG) accounts for approximately 22% of the systems receiving the Phase III Director Award for Distribution Systems (five out of 23 systems). Additionally, two MSG systems were recognized for Five-Year Directors Awards for Distribution System Operations.

Furthermore, we participate in the Lead Service Line (LSL) Replacement Collaborative ([lsr-collaborative.org](http://lsr-collaborative.org)), a joint effort of 25 national public health, water utility, environmental, labor, consumer, housing and state and local governmental organizations. The LSL Replacement Collaborative's goal is to accelerate full removal of lead pipes providing drinking water to millions of American homes. We continue to look for better ways to maximize drinking water quality protection and improve the efficiency of LSL replacement.

## Technology

To better understand contaminants, we equip our labs with state-of-the-art technologies for measuring water quality constituents at our Central Laboratory and Water Research Laboratories. We continually investigate new substances and contaminants to identify threats to our water supply, act on emerging regulations and new health advisories, and evaluate the benefits of alternative or advanced treatment technologies. Our Environmental and Operational Excellence group includes the Water Research Group, and is comprised of scientists with backgrounds in chemistry, engineering and microbiology, and half with Ph.Ds.

For more than three decades from its inception, our research and development (R&D) program has evolved into an industry leading water-related research program, achieving advancements in the science of drinking water and wastewater. We identify and control new contaminants of concern before new regulations go into effect. Our research lab differentiates us from our peers, with in-house scientific and engineering experts who hold relationships with external governmental, industry and environmental groups.

Also, our research lab is currently piloting several treatment technologies that improve our efficiency. One new process uses ion exchange to target contaminants of concern and comply with health advisories and regulations on PFAs and other contaminants, while also reducing our costs.

Another example of our advanced technology is how we monitor our extensive infrastructure network. What once was an extremely time-intensive process is now an expedited process that does not compromise quality. Mapping software such as Geographic Information System (GIS), machine learning technologies and drones make it easier to monitor our water infrastructure and protect water quality. Please see our [Water Infrastructure section](#) for more.

Finally, we adopted a new and innovative method to compile and update contaminant information for our drinking water sources. The GIS map-based tool, WaterSuite, collects information about potential sources of contamination from various data sources and pulls it into a single, updatable contaminant information database for a defined area of interest.



# Contingency & Communications Planning

Water utilities can develop strategies to understand and manage risks to source water supplies, but no water utility can prevent the occurrence of chemical releases, power outages or natural disasters. It is essential to have Emergency Response Plans in order to help facilities respond to a wide variety of potential emergency situations. Our facilities have Emergency Response Plans in place. For the safety and security of our water systems nationwide, these plans are kept confidential, based on bioterrorism laws.

In the event of a water-related risk or threat, our alert system, CodeRED, is a high-speed mass notification system to keep customers informed about water-related emergencies. Customers receive notifications through automated phone calls, text and e-mail. Alerts sent through the CodeRED system are available on the “Alert Notifications” page on our individual websites, along with a map of the impacted area.

Customers can ensure we can contact them quickly in the event of an emergency by logging on to our [web self-service portal](#) and confirming or updating their contact information.

SASB IF-WU-140b.2

## Source Water & Effluents

Even with strong systems in place, our water sources can still face contamination from urban storm water runoff, potential sources of pollution located upstream and algal blooms. These pollutants have the potential to impact entire rivers and watersheds, and endanger the health of the populations we serve. We recognize the threats posed by aging infrastructure, trace pharmaceuticals in wastewater, hospital effluents and antibiotic-resistant genes to water quality. Our scientists test water samples from across the country to protect against hazardous chemicals, algae, metals, minerals, microbes and other potential contaminants. Online sensors and analyzers also monitor the water as it passes through our systems.

For each of our surface water sources, we identify potential sources of significant contamination from upstream areas contributing water to our system. This includes an assessment of available data for chemicals that may be used, stored and transported through the area. We have installed source water monitoring systems to detect changes in surface water quality that may indicate the presence of possible contamination. Each monitoring panel is equipped with a variety of probes to measure parameters including pH, conductivity, Oxidation-Reduction Potential (ORP), UV254, dissolved oxygen, algae (chlorophyll), ammonia and oil in water. The selection of the type of probes used depends on the potential sources of significant contamination. At each system we implemented continuous monitoring

**Our expansive team of scientists, engineers and public health professionals is dedicated to researching water quality and technology-water source monitoring, and collaborating with water research foundations.**

and established a baseline with one year of water quality data which allows us to enact triggers and alerts when anomalies are detected in the source water. We partner with other utilities and organizations to conduct monitoring as part of larger river networks, such as those along the Delaware and Ohio Rivers. In the event that we detect a potential contaminant, our surface water plants have contingency plans in place to respond. These components all work together to minimize potential impacts from contamination of a drinking water supply.

We also conduct research in rivers and watersheds by having probes sample water for contaminants within water bodies and near our intakes. We are also conducting education efforts to bring attention to the threat of contaminants of emerging concern. Our expansive team of scientists, engineers and public health professionals are dedicated to researching water quality and technology-water source monitoring, and collaborating with water research foundations.

## Commitments/Goals

From 2015–2018 we had an annual Notice of Violation (NOV) target, as part of our company-wide Annual Performance Plan. This target required us to provide drinking water quality 20x over the industry average, equating to six systems with NOVs or fewer each year. Our overall drinking water performance is provided below.

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## OUR PERFORMANCE

In 2017 and 2018 our performance continues to improve. For both years, we only received two acute health and four non-acute health based notices; the remaining notifications are non-health based.

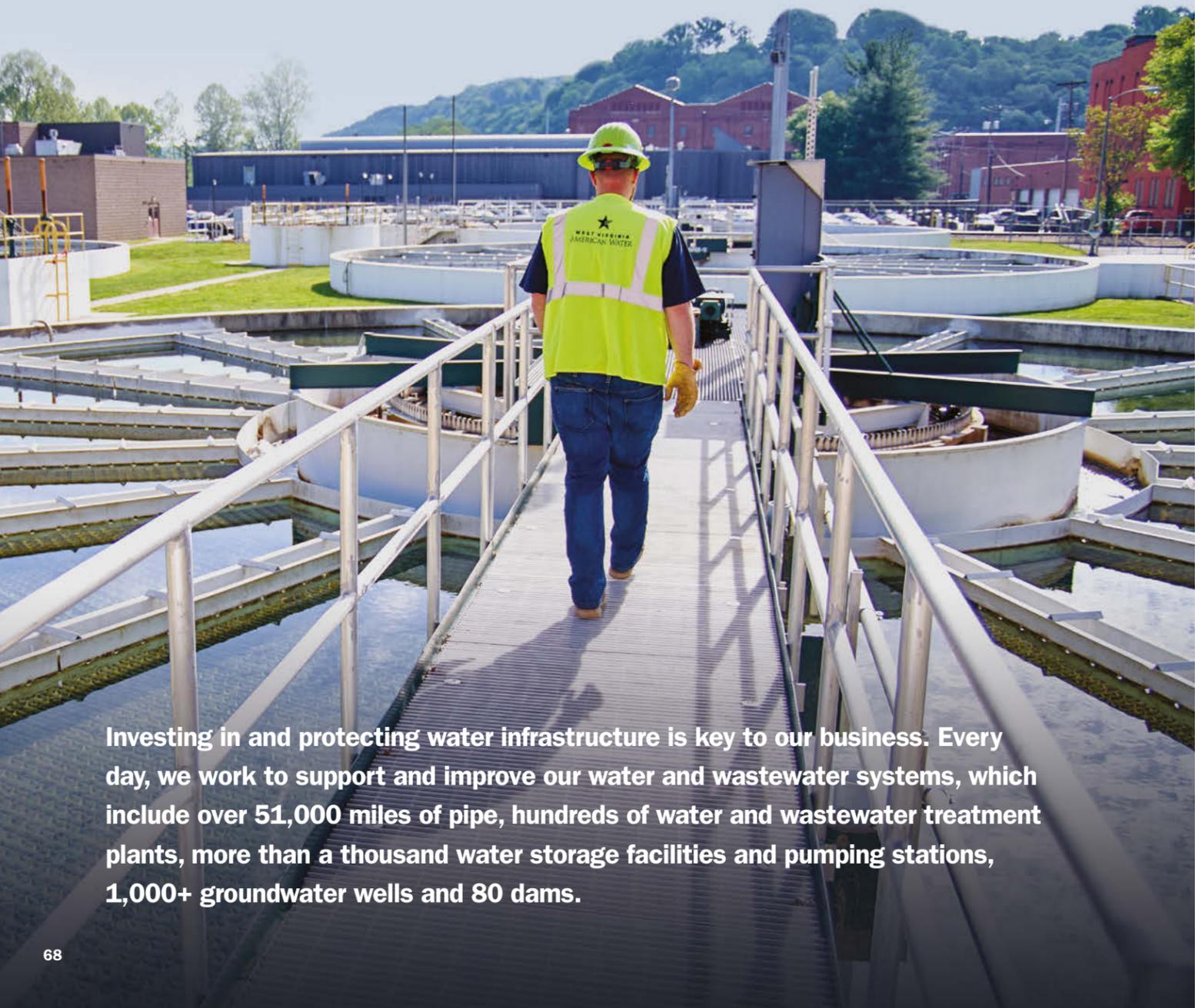
		2015	2016	2017	2018
U.S. Drinking Water Industry	U.S. Systems in Violation	19,193	19,059	18,542	17,499
	U.S. Total Systems	50,546	50,059	50,259	50,132
	Percentage	38%	38%	37%	35%
American Water	American Water Systems	339	336	341	326
	Theoretical No. Systems with NOVs (Based on U.S. Percentage)	129	128	126	114
	American Water Systems with Drinking Water NOVs <sup>1</sup>	10	6	27	10
	Times Better than Rest of Water Industry	13	21	5	11

<sup>1</sup>Drinking Water NOVs include: acute health based, non-acute health based, and non-health based violations. Metrics provided exclude new systems acquired in the same year and third party violations.

We have multiple means by which we drive environmental performance. For drinking water, we compare ourselves against the industry average for meeting drinking water compliance and have consistently outperformed the industry average. For wastewater, we set goals to reduce the number of overflows and times that we are not able to meet end of pipe discharge limits. However, to drive Environmental Leadership we must focus on both leading and lagging indicators.

- Leading indicators such as: internal audits, peer to peer reviews, training, adherence to scheduled maintenance, advanced data analytics, etc.
- Lagging indicators such as: Maximum Contaminant Level (MCL) exceedances, tracking of Health Advisory Limit (HALs) exceedances, meeting all regulatory limits, etc.

# DOING WELL THROUGH OUR INFRASTRUCTURE



Investing in and protecting water infrastructure is key to our business. Every day, we work to support and improve our water and wastewater systems, which include over 51,000 miles of pipe, hundreds of water and wastewater treatment plants, more than a thousand water storage facilities and pumping stations, 1,000+ groundwater wells and 80 dams.

103-1

## Water Infrastructure

### WHY IT MATTERS

Reliable water and wastewater is critically dependent on adequate infrastructure as the backbone of a utility's operating strategy. While the service life of water infrastructure can span many decades (in many cases more than a century), many water and wastewater systems across the United States have been underfunded for decades and fallen into a general state of disrepair.

The American Society of Civil Engineers (ASCE) [U.S. water infrastructure report card](#), published every four years, underscores the need to renew infrastructure across the country. ASCE's report card assesses the country's water infrastructure and provides projected reinvestment levels required to maintain the vast network of aging treatment plants, pumping stations, storage facilities and pipelines in need of replacement or repair. The most recent ASCE report in 2017 graded the United States' water infrastructure a D+ and wastewater infrastructure a D, an assessment which remains unchanged from the last report card in 2013. We recognize the urgent need for a well-planned and executed asset renewal and upgrade plan to drive modernization, improve efficiency and increase reliability and resiliency.

With our installed asset base of more than \$23 billion in book value, and annual capital investments of more than \$1.5 billion per year toward renewing and improving these assets, we make infrastructure investments with a long-term perspective. The challenge of renewing aging infrastructure is formidable, but this investment provides many opportunities to increase our climate resilience by implementing mitigation and adaptation strategies. As climate models and forecasts continue to improve, we are constantly evaluating risks to our operations and implementing new design standards into our engineering processes to make assets more resilient.

Our commitment to providing safe and reliable water and wastewater services to the communities we serve includes incorporating established best practices in our operations and implementing an investment strategy that balances infrastructure needs with affordability for our customers. Our demonstrated ability to service and maintain distribution and treatment infrastructure and operating processes—maintaining compliance, fixing leaks, improving water quality, ensuring water at hydrants, etc.—can help communities remain strong and attractive to residents and businesses. Our reputation as a solutions provider has enabled us to acquire many municipal and privately owned systems and, through investment, bring them into compliance with regulatory standards and improve them.

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**Our demonstrated ability to service and maintain distribution and treatment infrastructure and operating processes—maintaining compliance, fixing leaks, improving water quality, ensuring water at hydrants, etc.—can help communities remain strong and attractive to residents and businesses.**

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## OUR APPROACH

We focus investment dollars where they will most efficiently provide the greatest benefit to customers and mitigate the most significant risks. Over the past 10 years, we have significantly increased our infrastructure investment budget to address the growing need for pipe replacement and other important needs to serve customers, totaling over \$10 billion of regulated investment. We anticipate the need for significant investment will continue to rise as infrastructure ages, more intense and frequent storms require greater system resiliency, new regulations are promulgated and American Water's footprint continues to grow.

We use a long-term planning process to evaluate our water and wastewater systems for capacity, condition and performance today and into the future. Our comprehensive planning study (CPS) process assesses a 15-year or longer time horizon to develop a system roadmap. The CPS process includes:

- An evaluation of supply availability against projected growth of customer usage;
- Water treatment performance versus projected changes to water quality standards and research information on emerging contaminants of importance; and
- Asset condition and performance versus efficiency, safety and obsolescence.

We examine service levels related to pressure, flow, leakage and water quality in piping networks for drinking water systems. We also assess wastewater collection systems for capacity, inflow and infiltration rates, manhole and pipe condition and overflow events. We conduct numerous CPS studies each year, with systems evaluated on a rotating basis based on priority. These studies provide a prioritized improvement plan for each system.

Over the 2019–2023 period, we expect to invest approximately \$8.0–\$8.6 billion in our regulated footprint. Approximately \$7.3 billion or 84% is dedicated to regulated investments. This is critical, as we continue to improve our current infrastructure and remain the leading water and wastewater utility in the nation.

This reinvestment will enable us to continue improving our infrastructure, which provides essential services to the customers and communities we serve. To assure prudent investment, we plan and prioritize projects based on the need or level of risk to our system capacity, reliability, safety, security or quality of service.

## Economic Impact

The resources we invest in capital infrastructure and ongoing operations generate significant economic benefits to the local and regional economies. This includes the direct effects of our initial spending, as well as the broader, indirect economic effects that result from our infrastructure reinvestments. Because our operations and capital expenditures are ongoing every year, we generate these economic impacts on an annual basis.

We pay close attention to jobs created as a result of our capital expenditures. In 2011, New Jersey American Water (NJAW) commissioned a report to determine the overall economic impact of NJAW's operating and capital expenditures in New Jersey in 2009. The report concluded that the \$480.4 million in expenditures resulted in 3,352 direct and indirectly generated jobs. Based on the report commissioned by NJAW, we estimate that our total capital plan of \$8.0–\$8.6 billion of investment from 2019–2023 could generate more than 55,000 direct and indirect jobs.



## Responsibility

Each regulated state utility company develops an annual, bottom-up capital business plan based on the infrastructure needs that the state's engineering teams identify in their operational footprint. These plans are approved by the subsidiary regulated utility companies' Boards of Directors, and are then rolled up to the enterprise level for approval by American Water's Board of Directors each December. Upon approval, the state engineering teams carry out these plans, and the individual state and American Water Capital Program Management Committees (CPMC) oversee execution. Each of these committees meets on a monthly basis.

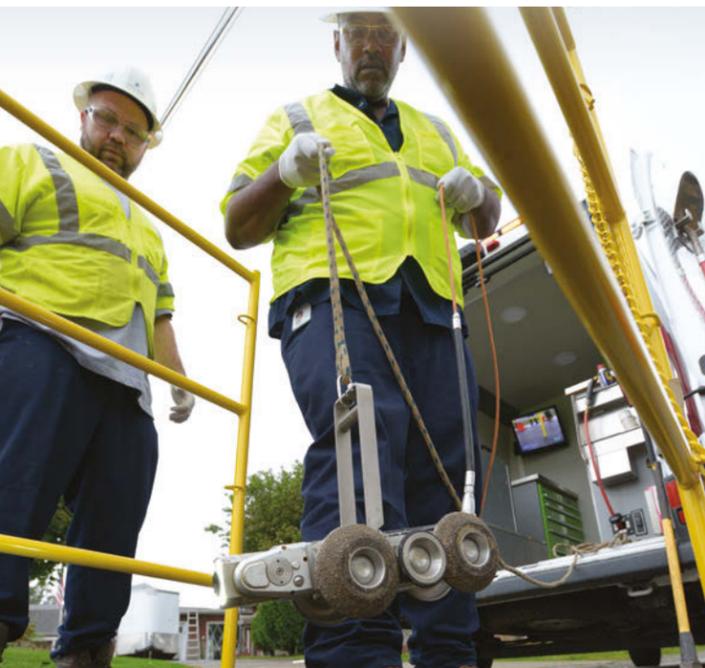
Our regulated utility CPMC Committees include the state President and leads for engineering, operations and finance, while the CPMC Committee comprises American Water's Chief Operating Officer, Chief Financial Officer, Vice President of Engineering and Director Engineering-Enterprise Capital Program.

## Policies & Practices

The Capital Program Management Policy includes three supporting practices:

- **Capital Program Management Practice:** as the primary governance document, this practice encompasses governance, budgeting and reporting.
- **Asset Planning Practice:** provides guidance on assessing all water systems and prioritizing them according to the planning necessary to determine investment needs in line with the 10- to 15-year outlook that informs our capital plan.
- **Capital Project Delivery Practice:** governs the actual implementation of projects, design, bidding and construction efforts.

Several accounting policies support the Capital Program Management Policy. Our Capitalization Policy provides guidance on which assets should be capitalized and how to do so, while our Asset Maintenance Management Practice addresses maintenance, rather than replacement of assets.



## Using Technology

Technology enables us to efficiently assess our infrastructure condition and monitor performance. For example, for pipeline condition assessments, we use various sensor technologies, both in-pipe and externally, to examine infrastructure integrity, condition and remaining service life. We also have developed hydraulic models of our pipeline networks to facilitate scenario planning to identify and address system problems and optimize performance. In addition, we utilize various technologies, including acoustic monitoring equipment, to identify and locate leaks in our pipelines before they become potentially catastrophic main breaks. At our treatment plants, we have deployed thousands of sensors and instruments to monitor equipment condition and performance, which can trigger the need for targeted maintenance, rehabilitation or replacement. We also work to leverage available data from both our operations and external sources, and are evaluating the potential of machine learning and artificial intelligence to better understand and assess risk to our assets and operations.

## Assessing Infrastructure Risks

Our goal is to replace pipes and other assets before they stop providing a safe and reliable level of service or once it is no longer economically prudent to continue to maintain and repair them. We use various prioritization tools to make informed decisions about which infrastructure investments to pursue based on several factors. These factors include ongoing operating and maintenance costs, the likelihood of an asset failure, the potential consequence of the assets failing relative to compliance requirements, health and safety of our employees and the public, customer service, financial losses and other issues. Our above ground and buried infrastructure require different risk evaluation approaches, but we generally assess our infrastructure based on capacity, condition, performance and the consequence of failure. For pipelines, we also consider factors such as age of pipe, distribution system pressure, soil conditions and water quality.

Our risk-based prioritization models organize infrastructure investments by category. For example, projects designed to address current compliance issues receive the highest priority of all projects, while projects that may help American Water meet future regulations come second. When health and safety are concerned, we prioritize imminent issues or potential failures due to infrastructure condition. With the passage of America's Water Infrastructure Act of 2018, we will undertake additional risk and resiliency assessments of the majority of our systems over the next two years which will further inform our infrastructure investment prioritization process.

## Connecting with Customers

Although our infrastructure investment projects are focused on long-term improvement to system reliability and the quality of services for our customers, replacing or updating infrastructure can have significant temporary impacts on the communities where we operate. Work on our buried infrastructure generally has the most impact to a community as they affect road conditions and traffic patterns. To minimize disruption, we evaluate and grade every segment of pipe within our distribution system and package pipeline replacement into logical projects. Whenever feasible, we coordinate with municipalities to coincide with the timing of their street paving programs, and with other utilities to align with their replacement and renewal projects. Depending on the impacts to a neighborhood or street and as needed, we conduct proactive stakeholder meetings or provide communications such as door hangers and letters to provide residents with relevant project information.



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## OUR PERFORMANCE

Per SASB expectations, we actively track our water main replacement rate as well as the number of unplanned service disruptions and affected customers. By consistently monitoring these factors, we can adjust operational practices to increase O&M efficiency through project prioritization. Our performance informs decisions on future pipe replacement needs and pursue regulatory mechanisms such as Distribution System Investment Charges.

Despite increasing frequency of record-breaking climate events, the number of unplanned service disruptions and main breaks per mile has remained relatively constant. American Water's main breaks per mile are in line with industry expectations and we continue to show a decline in main breaks over the past 10 years.

Since 2014, pipe renewal rate has averaged approximately a 150-year replacement cycle. Our long term goal is to achieve a 100-year pipe replacement cycle, compared to an industry average of approximately a 250-year replacement rate.

103-1

## Climate Variability

### WHY IT MATTERS

Water management and climate change are inextricably linked. The impacts of climate change such as sea level rise and increases in frequency of extreme weather events, directly affects water sources and infrastructure. The number and frequency of droughts, severe storms and wildfires has intensified over the past 20 years. Further, the U.S. Geological Survey has linked river salinity to climate change. The changing of source water makeup and extreme weather events directly impacts the environmental aspects of our business.

Infrastructure that is in poor condition or designed for historical environmental conditions is more susceptible to the impacts of extreme weather events, especially flooding and droughts, which can result in contamination or loss of service. Water utilities must address these risks through redundancies and strategic planning. This work is vital to continually meet our customers' basic needs for clean, safe and reliable water while also promoting shareholder value.

We invest in the resiliency of our systems and the communities we serve. The effects of floods, fires and hurricanes across our country have devastated many of our communities. Challenging weather conditions, and thus the related risks, are predicted to continue and escalate. In 2017 alone, there were \$17 billion of natural and climate disasters in the U.S. The Northeast has seen five to seven 100-year floods or natural disasters in the past decade.

[DOWNLOAD](#)
[Climate Variability](#)


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### OUR APPROACH

To prepare our water and wastewater utilities for the future, there is an increased focus on incorporating climate change into our Asset Investment Strategy. We manage risks and opportunities related to climate change, particularly with respect to extreme weather events and community resilience, and share best practices with the industry. We protect the viability, integrity and resiliency of water supplies and water and wastewater infrastructure in areas that are vulnerable to droughts, floods and extreme weather events. Adapting to increasing climate change means we must identify solutions that improve our management of related risks for the communities we serve.

### Responsibility

See [Water Supply Resilience](#) for details about our approach to adaptation and mitigation strategies associated with climate change.

### Policies

Our Capital Program Management Policy requires that investment in our infrastructure follows specific recommendations from our comprehensive asset planning process, which includes assessing risks from climate change and developing appropriate mitigation and adaptation strategies. For example, in our construction, we use either a 100-year minimum or 500-year flood elevation as the basis of design, depending on the criticality of the asset and specific application.



## Floodwall in Iowa Continues to Protect Plant as Waters Rise, Resiliency Planning Helps When Natural Disasters Occur

Recent flooding on the Mississippi River continues to set new records. As the water rose, Iowa American Water employees worked around the clock to continue to provide water service to customers. While flooding is not a new challenge, in 2019 the river rose to a record-setting 22.7 feet above mean sea level (AMSL). Additionally, due to heavy rainfall, the river crested for a second time one month later at 21.7 feet AMSL.

Resiliency came in the form of a permanent 2,200-foot long floodwall established in 2013 by a partnership between Iowa American Water, the Army Corps of Engineers and the City of Davenport. We constructed the original floodwall after the Hurricane Floyd in 1999, which inundated the plant and interrupted water supply to customers for weeks. The preliminary engineering work to increase the level of flood protection above the original floodwall level was initiated following Hurricane Irene in 2011, when floodwaters came within an inch of overtopping the floodwall. The \$11.8 million floodwall, constructed in 2013, is designed to protect the water treatment plant to a river stage of 31.4 feet AMSL. The floodwall closed when the river level rose to 20 feet on April 15, 2019. This was the first major flood event to test the wall since its completion.

During all Mississippi River flooding events, we kept our treatment facility protected and in service, with water flowing to our customers. This plant runs on a single source of water, which can present a host of challenges, including the potential for 55,000 connections to go without water service in the event of a significant flood. However, the floodwall alleviated some of that risk, allowing the plant to stay in service. This is proof that funding for resiliency capital projects benefits communities.

## Planning for Climate Impacts

Our operations and engineering teams meet regularly to develop long-term capital plans that address our systems’ safety and resiliency. We will continue to invest in our resiliency because we see the readiness of our systems as critical to addressing weather challenges and climate change impacts on our life-sustaining services.

Through a comprehensive planning process, we evaluate how water supplies, water quality and water demands may change. We also evaluate how storm intensity could affect our assets, and whether we need to update our design standards. We incorporate increasing climate change into our water usage models and mitigation strategies to reliably serve our communities.

When we build new facilities, we consider climate change, raising critical equipment well above historic flood levels and designing for more frequent and intense weather events to strengthen their resiliency. We have committed approximately \$1.5 billion annually to upgrade and renew water and wastewater treatment plants, distribution and transmission pipes, pumping stations and other essential facilities. Approximately, 8% of our capital investment is dedicated to resiliency.

## Global Issue, Local Impacts

Climate change affects each of our subsidiaries’ geographies differently. In coastal communities where we rely on both surface water and groundwater, our surface water supply is affected by sea level rise and more frequent flooding, while wells may be vulnerable to increased salinity. We develop strong relationships with local municipalities

to help ensure we can address any issues when flooding or other climate-related issues arise. Coastal wastewater systems also can experience increases in inflow and infiltration from more intense storms and flooding.

Another critical risk is water supply depletion, so we carefully monitor the water levels to help ensure operational efficiencies when pumping and utilize technology to identify any impacts on the aquifer. We use groundwater models, often from individual state versions of the U.S. Geological Survey, to monitor the amount of water in the aquifer to help ensure withdrawals match refills.

Across all geographies, development activity further magnifies the effects of climate change. As land is developed for housing and other uses, increased impervious surfaces generate more runoff, resulting in increased flooding and risk of introducing new potential contaminants to water supplies. Understanding that this trend will continue, we support responsible state and local planning and zoning policy that protects our water resources. See [Policy Influence](#) for additional information.

## Adaptation

Intense storms and winds can lead to power outages that could affect our services. We must be prepared for these events by ensuring our most critical facilities can operate on stand-alone power generation sources for an extended period of time, such as natural gas-powered generators and/or solar panels. Additionally, our Emergency Response Plans focus on strategies to mitigate the potential impact from extreme weather and climate change to improve the reliability of our systems for the benefit of our customers.



103-3

## OUR PERFORMANCE

At American Water, as part of our long-term capital planning, we assess climate variability impacts on our most critical assets and upgrade accordingly. During this process, we conduct assessments to evaluate risks of equipment damage due to flooding concerns. For collection systems, we conduct flow monitoring, hydraulic modeling, CCTV and other inspections to identify sources of Inflow and Infiltration (I&I). We make recommendations to improve resiliency and service delivery, and reduce I&I.

Since 2015, at least 75% of our systems have not experienced any End of Pipe (EOP) exceedances and over 77% of our systems did not experience any sanitary sewer overflows (SSO).

Code	Accounting Metric	2015	2016	2017	2018
IF-WU-450a.1	Wastewater Treatment Capacity Located in 100-Year Flood Zones (Cubic Meters (m <sup>3</sup> ) per Day)				110,248
	Total Systems	167	171	168	173
	Systems Without Any EOP Exceedances	75%	80%	82%	76%
	Systems Without Any SSOs	78%	85%	77%	77%
	End of Pipe (EOP) Exceedances	163	121	175	162
	Number of Sanitary Sewer Overflows (SSO)	99	82	133	127

We disclose the material financial implications and other risks and opportunities due to climate change in our CDP response as well as the Annual Report. We use the outcomes of our risk analysis to identify at-risk infrastructure and invest in resiliency measures.

103-1

## Water Supply Resilience

### WHY IT MATTERS

A reliable, sufficient supply of clean, safe, affordable water is essential to the life of communities and the function of our water infrastructure. We must manage water supply, a finite resource, and safeguard customers' long-term needs. In some regions, concerns about long-term water scarcity and water quality are increasing stakeholder expectations that American Water must protect this valuable resource and ensure we maintain their access to clean, safe water into the future. The risks posed by climate change increase pressure to plan for and address Water Supply Resilience.

103-2

### OUR APPROACH

Protecting drinking water at its source is an essential part of a multi-barrier approach—along with treatment and distribution—to provide reliable, clean water to our customers.

We begin by selecting a high-quality supply to meet anticipated long-term needs. We conduct holistic risk and resiliency assessments that consider ESG issues. We also work to identify and mitigate potential future threats to existing sources of supply through planning, implementation and outreach efforts. Whether the potential risk is due to natural hazards, such as droughts or flooding, accidental contamination, or even malevolent threats, American Water's goal is to maintain adequate and high-quality water supplies.

### Water Availability

To safeguard our long-term water supply, we promote conservation throughout our value chain, work to minimize water leakage throughout our infrastructure and utilize water reuse strategies in areas of limited supply. In addition, we use technology and innovation coupled with customer education and O&M efficiency to ensure reliable water supply to customers.

One of our greatest challenges is securing supplemental water supply, especially in water stressed areas. American Water uses innovative approaches to address these needs. For example, in Bel Air, Maryland, we constructed a reservoir to capture and store water diverted from the source during high flow to be used during droughts.

**We use our expertise to help manage water supply, a finite resource, and safeguard customers' long-term needs.**

In California, we were able to significantly decrease the size of our future desalination plant by using reclaimed water from the local aquifer. Our construction of the Monterey Peninsula Water Supply Project in Monterey, California highlights our innovative use of specialized technology. For more details, refer to the highlight story on [page 79](#) of this report, or visit the [Monterey Peninsula Water Supply Project website](#).



## Desalination Plant

Ensuring a long-term supply of high-quality water is important for residents and businesses in California. To protect threatened species that live in the Carmel River—on which communities in the Monterey Peninsula in California rely—the state of California placed limits on water withdrawal. Further, a court order mandated that water use from the Seaside Groundwater Basin, the only other source of water for Monterey Peninsula communities, must also decline.

California American Water is working to develop a replacement water source to address the limitations on these water sources—a desalination plant on the Monterey Peninsula, along with a recycling and reuse project. It will provide increased water access for residents and businesses in the area. At this plant, we are employing innovative technologies to decrease the plant's environmental impact, improve water quality and decrease the amount of treatment the salt water requires in an otherwise treatment intense process. Energy recovery devices will lower the plant's power consumption and slant intake wells help avoid impacts on marine life. These innovations are making our processes more efficient and environmentally safe, saving the company and our customer's money.

For more details, refer to the [Monterey Peninsula Water Supply Project website](#).



## Protecting Our Supplies in the Mid-Atlantic

American Water's Mid-Atlantic Division has a dedicated team focused on identifying and mitigating risks to sources of supply for the 75 water systems we operate across Pennsylvania and West Virginia. A key aspect of the program is the development and implementation of source water protection plans. These plans outline specific activities to address potential issues that may affect each drinking water supply source. Activities include source water assessments, potential source of contamination mapping, monitoring, contingency planning and community outreach.

Outreach and education is an important part of source water protection. The Mid-Atlantic team collaborates with community partners on water supply planning efforts and engages in local events to educate the public about water resources. They work to establish communications directly with upstream commercial and industrial facilities to help others understand how their operations can impact drinking water supplies.

Our Pennsylvania team works closely with local and state conservation partners on agricultural practices designed to improve water quality. As a result, the Swatara Creek watershed in central Pennsylvania was selected as one of the first round of pilot projects under the new National Water Quality Initiative Source Water Protection program for 2019.

Our employees also play a key role in protecting water resources. They live and work in the communities and have a vested interest in quality water—not only for drinking, but also for economic, social and recreational purposes. Employee engagement is a core component of our program and involves a range of activities from hands-on training to participation in local events.

In 2018, West Virginia American Water partnered with the City of Charleston, Clean Harbors and Habitat for Humanity Restore to host a household hazardous waste collection event called Clean Streams. This provided local residents the opportunity to properly dispose of unwanted household chemicals to keep them out of drains and waterways. The event collected over 20,000 pounds of household hazardous materials from more than 200 community participants. Everyone that attended the event received information on source water protection, as well as guidance on how to properly dispose of household hazardous waste at any time.

We are proud of the dedication displayed by our colleagues in the mid-Atlantic to ensure the protection of our future water supplies.

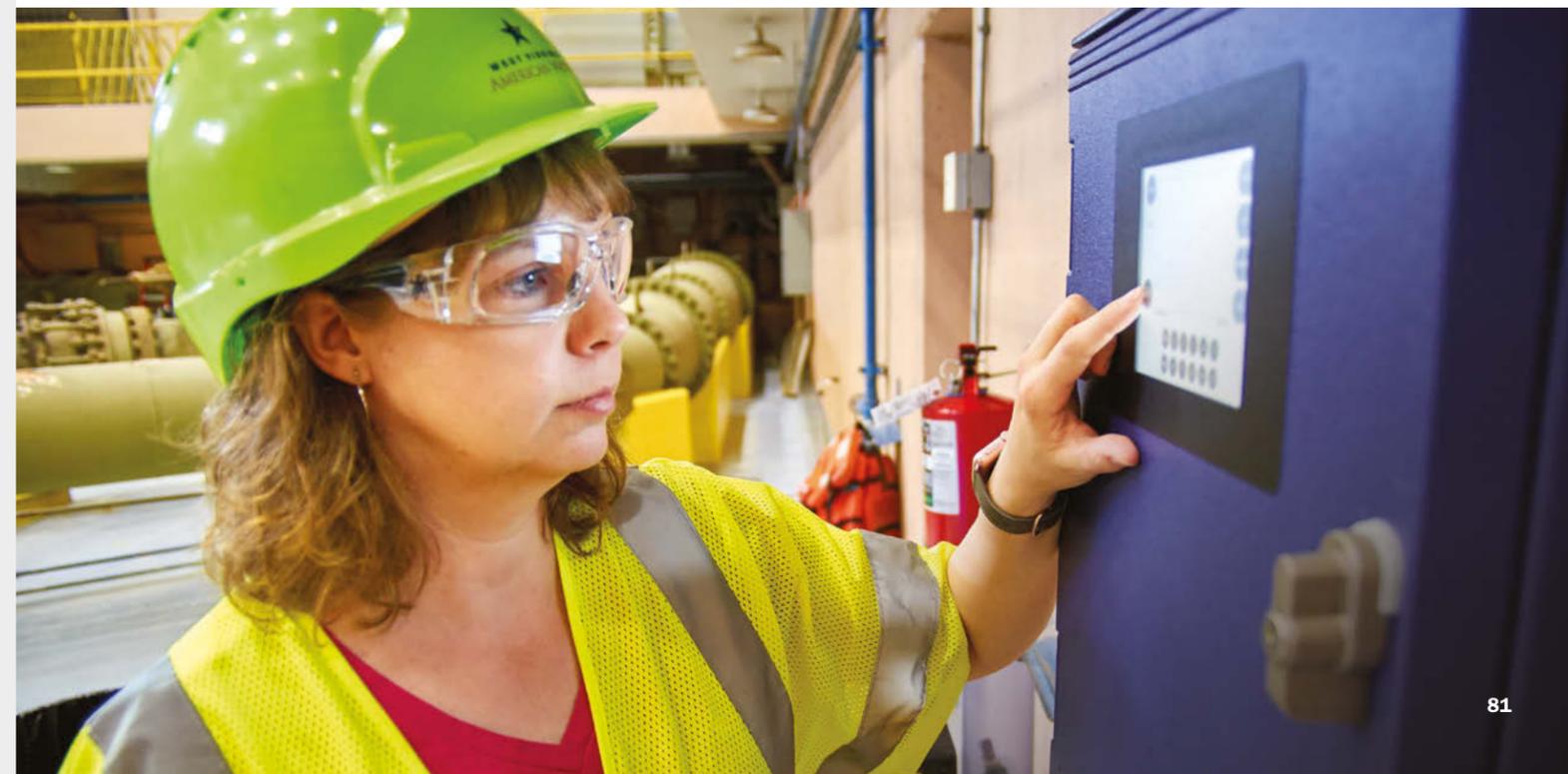
## Improving Water Efficiency

Part of protecting long-term water supply is improving water efficiency and promoting water conservation by our operations staff educating our customers, and by minimizing water loss in our distribution systems. American Water works to address Non-Revenue Water as a source of water supply, since improving water efficiency both mitigates risk and enables us to postpone new investments. We focus on distribution system leak detection and installing hydrant-based sensor-nodes throughout our systems. At our treatment plants, we capture and reuse water from plant processes where practical. We also operate several smaller projects in specific states, using purple piping for reuse for irrigation. See [Water Use & Efficiency](#) for additional information.

Both water and water stress can be local issues, and it is our obligation as the largest water and wastewater provider to deliver safe, reliable and consistent service to all of our customers, regardless of geographic location. We define Water Stressed Areas as systems or specific supply points of entry that have been

impacted by water rights reductions or water availability due to saltwater intrusion threat and/or drought limitations, such that alternative supplies have been or will need to be developed in the short term. This predominantly applies to the following areas within our service footprint: California, New York, New Jersey's coastal regions and western Missouri. In 2019, our New York American Water operations began implementation of a system-wide water conservation program. We are deploying smart irrigation technology designed to improve efficiency and reduce consumption of outdoor water usage. This will reduce demand on stressed aquifers that provide the main supply of water for Long Island, New York.

In addition to the conservation program, our tiered block rate structure has increased conservation by our customers. Under this pricing structure, the cost per unit of water increases as the customer uses more water. Together, these efforts allow New York American Water to postpone capacity-driven capital projects, thereby minimizing rate impacts to customers.



### Partnerships to Protect Watersheds

At a local level, we also have partnerships with a variety of entities, including river basin commissions and several community groups to help protect watersheds. We offer an environmental grants program that distributes awards to local watershed groups. Engagement with watershed groups helps protect the quality of water supplies through awareness of activities and protection programs, and enables improved communications with stakeholders. Such efforts can provide early warning of contamination events that may impact our intake facilities. We also work with several organizations at the national level. See our [Policy Influence section](#) for more details.

### Responsibility

Our Senior Vice President, Chief Environmental & Operational Excellence Officer, has ultimate accountability for Water Supply Resilience. Facilities engineering, operations and individual state Presidents are also responsible for our performance.

Our Board of Directors' Safety, Environmental, Technology & Operations Committee receives quarterly briefings on risks to our service and supplies from natural hazards, such as drought and loss of supply due to hurricanes, tornadoes, earthquakes or storms.

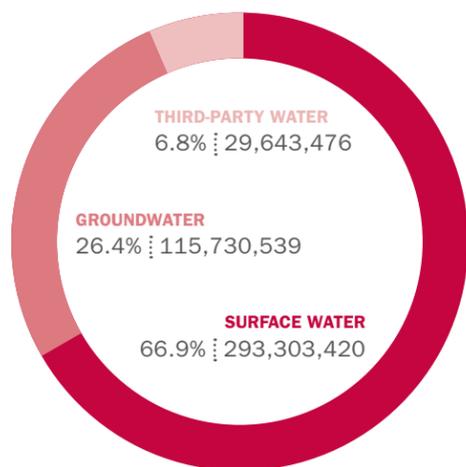
103-3

### OUR PERFORMANCE

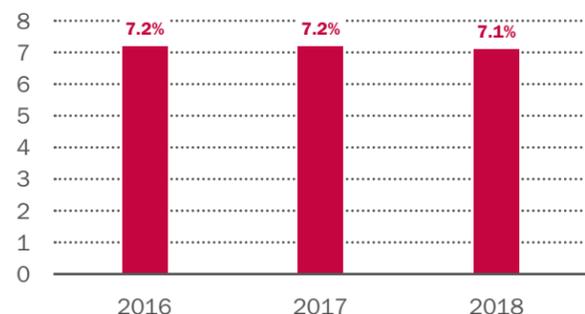
To help ensure we are effectively managing our water supply, we track water withdrawal by source, usage trends, water loss and allocation compliance. By tracking these metrics, we gain a greater understanding of our water usage and consumption. We are also able to identify best practices to spread across our network, which will further improve our resiliency.

EI 8.2

### 2018 Water Withdrawal (Kgal)



### Percentage of Water Sourced from Water Stressed Regions<sup>1</sup>



<sup>1</sup>System Delivery (by point of entry) is being used for "withdrawals." Water stressed areas include: New Jersey American Water system points of entry within Critical Areas 1 and 2, Monterey, California (active conservation program in accordance with California best management practices (BMPs)), Long Island, New York (New York State Department of Environmental Conservation has set a goal for all Long Island water suppliers to reduce their peak demand water use by 15% by 2021) and Joplin, Missouri (reservoir supply needed for drought).



## Kanawha River Study

In West Virginia, we commissioned a detailed engineering report to evaluate options for alternate sources of water supply, including backup intakes, raw water storage tanks and reservoirs, interconnections with other water systems and groundwater supplies. The report presents the available options for each of our water treatment plants, along with an estimate of the capital investment that would be required to implement each option. We have also constructed two new four-million-gallon tanks in Amandaville to provide additional storage for the Kanawha Valley system.

As part of this report, we conducted water and sediment sampling at several locations along the Kanawha River to evaluate its suitability as a secondary source of supply for the Kanawha Valley Treatment Plant. A total of 24 sampling events were conducted from June 2015 to June 2016 with comprehensive laboratory analyses for over 200 different chemicals and indicator parameters. For more information about this study, click [here](#).

# BEING A GOOD ENVIRONMENTAL STEWARD



**Our primary responsibility is the delivery of clean, affordable, reliable water and wastewater services. In fulfilling our responsibilities, we have committed ourselves to environmental leadership. We consistently work to protect public health and promote environmental stewardship.**

103-1

## Water Use & Efficiency

### WHY IT MATTERS

Water Use & Efficiency is key to American Water's business—both within our own operations and our customers'. Some of our greatest opportunities to reduce environmental impacts while also saving money include: optimizing water use, investing in technologies to prevent leaks and increase the efficiency of water infrastructure and educating consumers. Water efficiency measures reduce operating costs, energy consumption, and the need for water infrastructure expansion, as well as the demand on the planet's limited water supply—all benefiting our customers by helping to keep rates affordable.

President, Chief Environmental & Operational Excellence Officer oversees our business performance and reports to the Safety, Environmental, Technology & Operations Committee quarterly on our Water Use & Efficiency and Energy & Emissions performance.

To further drive behavior toward efficient use of natural resources, we link all employee incentive compensation—including our union-represented employees—to operational efficiency through our O&M ratio. Efficient water and energy usage positively affects our O&M ratio by reducing operating expenses, allowing us to focus our spending on capital investments for the benefit of our customers. Every dollar saved in O&M expense allows for \$8 in capital investment without affecting customer bills.

### Policies

#### Environmental Policy

Our Environmental Policy outlines the requirements for us to operate in a manner that protects public health while promoting environmental stewardship and maintaining our brand.

The policy outlines our commitment to:

- Comply with all relevant environmental laws, regulations and standards;
- Sustain the environment through responsible business practices that promote environmental stewardship with a holistic approach to pollution prevention; and
- Use natural resources effectively and efficiently.

We review the policy every three to five years and update it as needed. We are in the process of revising our Environmental Policy to develop more comprehensive functional responsibilities.

103-2

### OUR APPROACH

#### Responsibility

The Safety, Environmental, Technology & Operations Committee of the Board of Directors assists the Board in the oversight and review of environmental policies and practices. The committee reviews and monitors significant environmental strategies as well as policy and planning issues related to our operations—including matters before environmental regulatory agencies, compliance with environmental laws and regulations and environmental performance. Additional committee responsibilities include overseeing programs and policies regarding the protection of the environment, water conservation and greenhouse gas emissions. Our Senior Vice



## Leak Detection Technologies in New Jersey

New Jersey American Water boasts state-of-the-art acoustic leak detection technology. We operate 5,000 nodes including hydrant-mounted leak detection caps that listen for water leaks and help us identify where we need to dig when targeting a leak fix. In this area, from June 2015 through July 2018 Non-Revenue Water rates decreased from over 29% to 19%. Because of this success, we expanded permanent acoustic leak detection and continue to seek opportunities to deploy this technology. Leak detection helps us preserve our most precious natural resource.

## Supplier Environmental Expectations

Our Environmental Policy states that we will strive to do business with vendors that:

- Have not incurred violations related to the environment within the past seven years;
- Have an Environmental Policy or similar commitment focused on sustaining the environment through responsible business practices;
- Publish a Corporate Responsibility Report and/or invest in the community; and
- Show they have adopted other environmentally friendly/environmentally sustainable practices.

103-2

## Technology & Efficiency

American Water makes a significant investment in technology and resources to keep our water loss to a practical minimum. We replace the water mains most susceptible to breaks and leaks (approximately 300 miles of water main replaced per year) and renew old valves and service connections to minimize leakage of treated water. In addition, we use a variety of technologies including advanced metering systems, a smarter water grid, pressure management and leak detection programs. These efforts all help drive efficiency by minimizing the withdrawal of limited freshwater supplies, reducing power demands associated with pumping and treatment and using less chemicals and other resources throughout our processes.

- **Continuous Acoustic Monitoring of Water Mains via Hydrants:** Leak detecting sensors record sound patterns in the distribution system. Trained staff use specially designed software to analyze the noise for leaks. These sensors can detect small leaks before they visually surface as larger leaks.

- **Satellite and Sensor Technologies:** Satellite imagery is used in specific service areas to detect leaks via a particular spectral “signature” typical to drinking water and our prototype drones use infrared and spectral technology to spot changes in ground temperature or moisture indicative of leaks. Additionally we are testing other electronic sensors, such as in-pipe drones or probes, which are inserted into water mains and travel a planned route to identify cracks, deterioration or weaknesses in the pipe.
- **Improved Pressure Control:** Reducing and minimizing pressure fluctuations within pipelines lowers leakage and reduces the stress on pipes. Additionally, more carefully managing pressure within the distribution system can optimize pumping efficiency, resulting in lower power demands while still providing customers with the reliable supply they need.

- **Smart Distribution Systems:** Installation of automated flushing devices optimizes the frequency and duration of flushing, which minimizes water loss and improves water quality within our distribution systems.
- **Advanced Metering Infrastructure (AMI):** We are working with state utility commissions on the importance of AMI and are integrating real-time water usage data into our planning tools as well as our work and customer management technology platforms. This information helps us identify usage trends and properly identify leaks and resources needed to address potential issues. We will also be able to leverage this data to better understand rate design and cost of service calculation.
- **Zero Discharge:** We also operate innovative and efficient backwash practices at surface water plants to improve efficiency.



3.3B 

3.3 BILLION GALLONS OF WATER SAVED ANNUALLY THROUGH EFFICIENCY MEASURES TO PRESERVE THE WORLD'S MOST PRECIOUS RESOURCE

### Customer Conservation & Efficiency

We work closely with many of our customers and a few state utility commissions to encourage water conservation. We communicate conservation programs via bill stuffers and our websites educate customers about the efficient use of water. While our programs vary by state, some of our conservation initiatives and water efficiency improvement efforts include:

- Tiered-rate structures
- High-efficiency fixtures and rebate programs
- Leak detection kits
- Water-saving hints and tips on our websites and in social media

- Educational literature and events for customers
- Partnerships with the EPA and other organizations on public education
- Events such as Fix-A-Leak Week
- Alliance for Water Efficiency membership, which offers progressive research support, educational information and tools for the utility customers

As a promotional partner of the EPA's WaterSense Program, American Water helps to raise awareness about the importance of conserving water and promoting the use of WaterSense products. The Water Efficiency Technical Committee represents American Water with EPA WaterSense and the Alliance for Water Efficiency to maintain our promotional partnership and membership, respectively. In 2018, American Water reported over 15,000 giveaways or rebates for Water Sense-labelled, high-efficiency fixtures or appliances, with the majority of these program offerings in California and Pennsylvania.

We also are in the process of migrating customers to AMI, providing our customers with better visibility into their water usage. In the future, this technology will allow us to notify customers via text message or email of unusual water consumption patterns.

Overall, in recent years, our residential customers have saved about 1,100 gallons per customer per year—or 3.3 billion gallons annually, about 12.5 million cubic meters—through conservation and efficiency measures. Among the initiatives contributing to these savings are:

- California American Water's leading conservation program efforts totaled about 100 million gallons in water savings in 2018.
- In 2018, New York American Water embarked on a conservation study that included a detailed evaluation of water use patterns and a customer survey about water consumption habits that identified the water savings opportunities.

In 2019, we will offer options such as discounts on smart irrigation controller devices for residents to help them use water more efficiently outdoors, including a water use calculator on our websites and irrigation audits.

In 2018, American Water introduced Major Account Managers for large accounts, who work closely with our larger customers to address concerns about water use and implement conservation programs. Please see our [Doing Good for Our Customers section](#) for more information.

### Revenue Stabilization Promoting Efficiency

A few of our jurisdictions have adopted RSMs and adaptive tariffs, which permit us to collect state utility commission-authorized revenue for a given period, which is not exclusively tied to the volume of water sold during that period. These mechanisms not only reduce the size and frequency of general rate cases but also promote water efficiency, which translates into lower power costs and, in the long-term, avoids the need for additional capital investment.

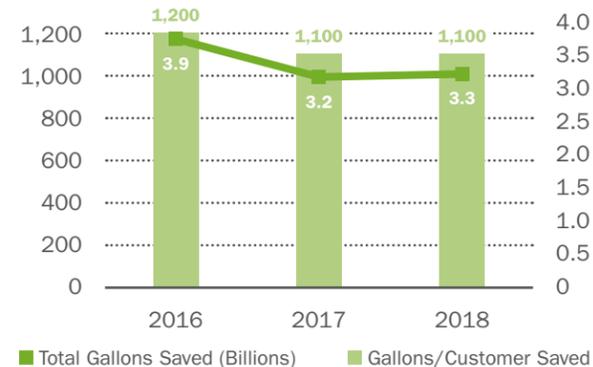
Both at Corporate and state utility levels, we advocate for RSMs that separate water sales from revenues. Currently, the way rates are set in certain states, if our water customers use less water, our earnings will decline because our revenues will drop. This makes it more difficult to invest capital. The idea behind the RSM is that it is inappropriate to "penalize" the company or its subsidiaries for improving water efficiency. Implementing this alternative regulatory mechanism will remove a disincentive to promote water efficiency and will support earnings that permit continued water infrastructure resiliency and efficiency investments.

As a promotional partner of the EPA's WaterSense Program, American Water helps to raise awareness about the importance of conserving water and promoting the use of WaterSense products.



IF-WU-420a.2

### Residential Customer Water Savings



## Operational Eco-Efficiency

While we work to promote efficiency across our systems and for our customers, we implement similar measures at our own facilities: we complete audits and promote and engage in efficient irrigation practices that we encourage our customers to use. As an electricity intensive industry we have been able to maintain our energy consumption ratio per thousand gallons (kGal) over the past 10+ years, while acquiring systems that typically require significant investment in infrastructure and are typically less efficient at time of acquisition. Further, our new corporate office utilizes sustainable building design to minimize our environmental impact. For more details, refer to the highlight story on [page 91](#) of this report.

## Reducing Water Loss

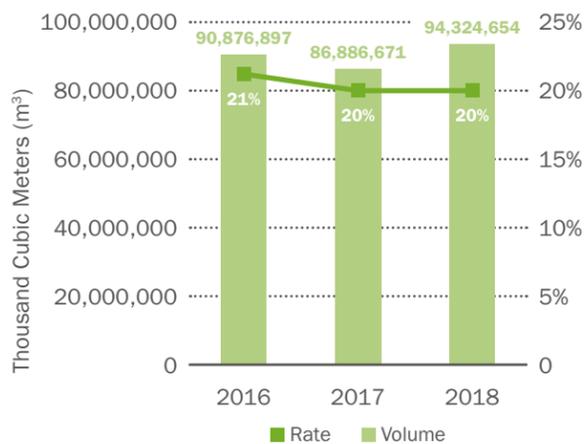
At American Water, “Non-Revenue Water” represents the sum of specific types of water loss and any authorized, unbilled consumption that occurs within water distribution systems. An accurate, reliable system for Non-Revenue Water reporting is critical to document operations, financial disclosure and the budget process; manage customer needs; track business growth; and plan capacity. To standardize and ensure the quality of our reporting, our Non-Revenue Water Practice helps employees accurately record and report Non-Revenue Water. It also describes the information systems used to maintain data and specifies the tools used for reporting. In 2018, American Water developed a Non-Revenue Water reporting practice that recommends all state subsidiaries conduct an annual water audit using AWWA water audit software. We will use this data to identify and prioritize areas for needed water loss investment. We update this practice every three to five years or when policies and practices change. The most recent update occurred in July 2019.

103-3

### OUR PERFORMANCE

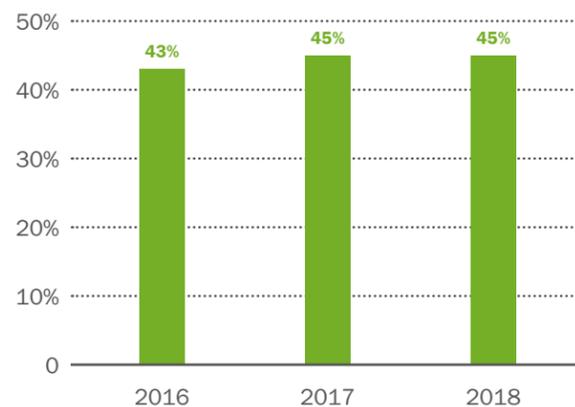
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#### Non-Revenue Real Water Losses<sup>1</sup>



IF-WU-420a.1

#### Revenues from Rate Structures Promoting Conservation<sup>2</sup>



<sup>1</sup>The Non-Revenue Water rates above represent leakage (real losses) and “apparent losses” (meter inaccuracies, theft, etc.) and “unbilled authorized consumption” (water main flushing, fire fighting, etc.). These values are determined based on the difference between water production and water sales. We are not able to provide an accurate “water leakage” value.

<sup>2</sup>Percentage of water utility revenues from rate structures designed to promote conservation and revenue resilience

## American Water’s LEED Headquarters

We reinforced our dedication to being an environmental leader by attaining LEED Platinum Certification for our new headquarters—both the core and the shell of the building—and earning all possible points within the Sustainable Site credit category. Our headquarters on One Water Street in Camden, New Jersey has committed to offsetting electricity demand for a minimum period of two years, with the option to renew. Of the many features that make our Headquarters a place we are proud to call home, these are some highlights:

- 40.8% of the total site area is dedicated to open space.
- Roofing technologies, energy and atmosphere efficiencies reduced our HVAC cost by 30%.
- We reduced potable water usage for sewage conveyance by 95.7% by using rainwater, low-flow water closets, low-flow faucets and waterless urinals.
- We reduced flush and flow fixtures water use by 77.3% compared to an office space with typical fixtures. A major contributor to this reduction was the installation of waterless urinals.
- We diverted 88.4% of the construction waste from landfills and appropriately recycled.

See this [case study](#) for more about our headquarters’ sustainability features.



103-1

## Energy & Emissions

### WHY IT MATTERS

Energy use can contribute to climate change through the emission of greenhouse gases (GHGs). Without mitigation and adaptation action, climate change could have serious implications for our business and our customers through effects on the quality and availability of water resources. We work hard to achieve a high level of energy efficiency, promote renewable energy generation and responsibly utilize transportation to help minimize our GHG emissions.

The vast majority of energy consumed by water utilities is used to pump water. In fact, roughly 4% of all the electricity in the U.S. is used for the treatment and transport of water. Indeed, around 90% of American Water's own electricity consumption and over 80% of our GHG emissions are related to pumping water. American Water aims to reduce our energy consumption and emissions through improved water use and efficiency, so we may protect our planet for all stakeholders, save customers money and benefit our bottom line.



# 31%

REDUCED GHG EMISSIONS  
BY 31% TOWARD 2025  
GOAL OF 40% REDUCTION

103-2

### OUR APPROACH

Primarily, we focus on Water Use & Efficiency methods to reduce energy use and GHG emissions. Additionally, we work with third party energy suppliers and local utilities to get the best energy price and reduce energy cost burdens on our customers. Wherever possible, we consider green energy when negotiating power purchase agreements to reduce our costs and lower our carbon footprint. We also recognize that, in many cases, environmental benefits outweigh reducing costs. When projects have known environmental benefits and/or an option to reduce greenhouse gas emissions, we will consider them even if the cost is higher than projects without these additional benefits. As a business, we also seek out energy efficiency and alternative energy rebate programs at a state and local level, where available.

American Water's proactive approach to conserving energy and water includes:

- **Plan for efficiency:** We consider opportunities to improve energy and water efficiency in our Comprehensive Master Planning process.
- **Design for efficiency:** We employ enhanced pump, pressure management, lighting and process design standards.
- **Construct for efficiency:** We follow sustainable construction standards and methods.
- **Operate for efficiency:** We use enhanced best operating practices, leak detection and repair procedures.
- **Maintain for efficiency:** We utilize computerized maintenance management systems and advanced preventative maintenance strategies to optimize performance and reliability of our equipment.



### Pump Replacement

As pumps and motors age, they become less efficient, requiring more energy to move the same amount of water. Replacement of pumps and motors with more efficient units helps reduce energy consumption. Additionally, the use of technology for early detection and repair of leaks in our pipes can save water and energy, reduce overall repair costs and help us decrease our carbon footprint.

American Water has an annual program to refurbish or replace pumps. In 2018, American Water invested over \$57 million in upgrading pumping stations. While many of these individual projects are smaller scale, one notable project included replacing the raw water pumps at a large regional water treatment plant in New Jersey. We expect this significant project to yield energy savings of 4,892 MWh per year and a corresponding reduction in carbon emissions of 3,459 metric tons per year. Such projects drive progress toward the 40% reduction of GHG Emissions by 2025 (from a 2007 baseline).

.....

**In 2018, American Water  
invested over \$57 million in  
upgrading pumping stations.**

### Pressure Management

The pressure in most water systems increases at night when customer flows decline and storage tanks must be refilled. This results in added stress on buried infrastructure, and also increases the rate of leakage. American Water is continuously testing innovative technologies and practices to reduce leakage, including developing tools and strategies that can lower water pressures at night without compromising the ability of the system to meet peak demands. Past partnerships include working with Stream Control Ltd. (an Israeli start-up) through the BIRD Foundation, an Israel-U.S. Binational Industrial Research foundation, with a mission to stimulate, promote and support industrial R&D of mutual benefit to the U.S. and Israel. American Water worked with Stream Control to assess its capabilities and effectiveness for automatically reducing pressures during low flow/demand periods so that leakage rates and water loss volumes could be minimized. Additionally, we have deployed and evaluated the latest in advanced correlating continuous acoustic monitoring technology (CCAM) and satellite imagery leak detection (SILD) to more efficiently and effectively locate leaks and reduce water loss. Such innovations are helping American Water lead the industry towards new techniques for conserving water supplies and energy.

# Environmental Grant Program

DOWNLOAD

[Environmental Grant Program](#)

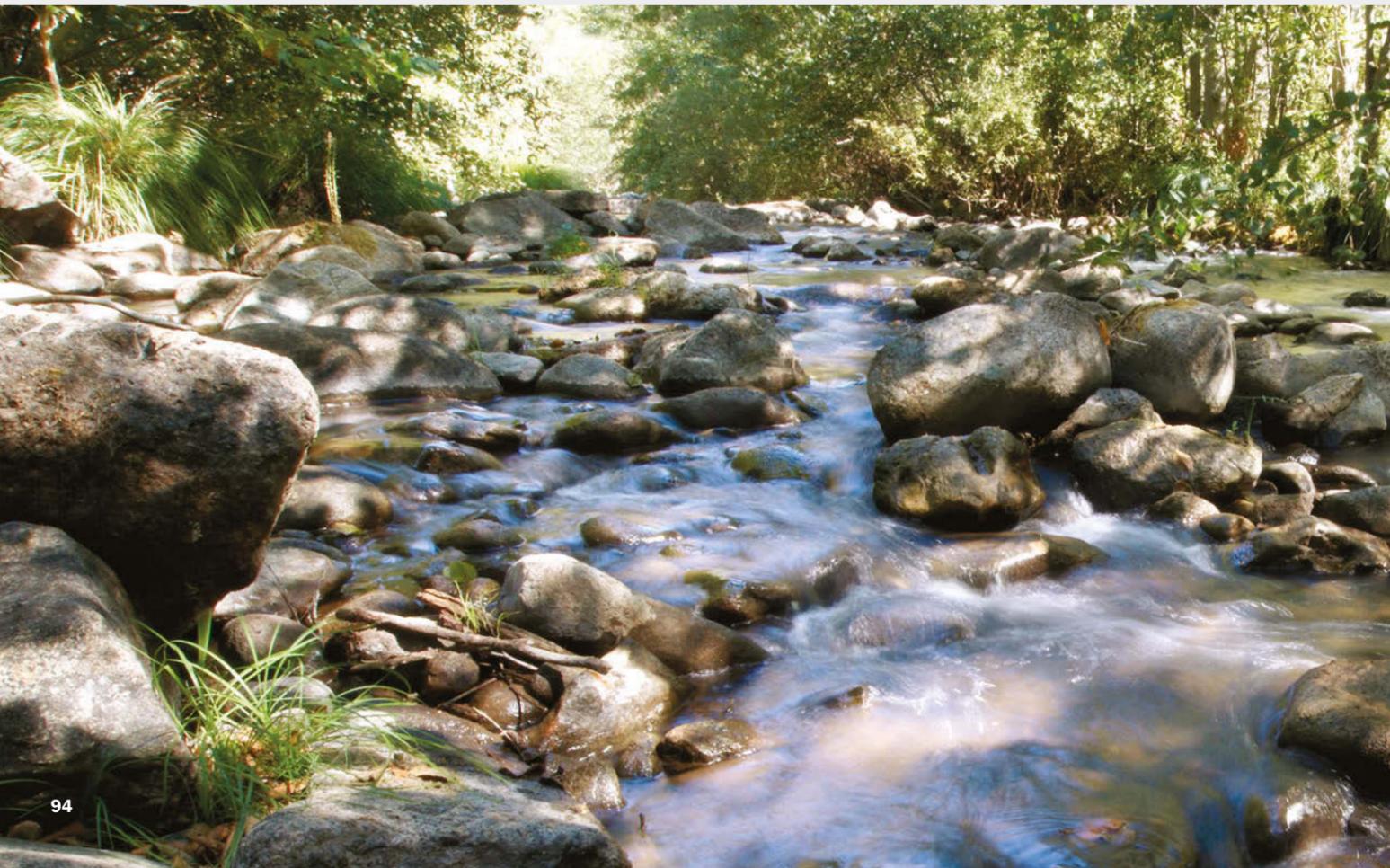


Through 2018, American Water’s Environmental Grant Program has provided more than \$1.5 million of needed support for 462 projects to help improve, restore and protect our valuable natural resources through partnerships. Everyone is responsible for protecting the nation’s water supplies, and this program is one way we can help communities play an active role in this important effort. Last year, American Water funded 49 projects that were awarded grants totaling \$188,000 for innovative, community-based environmental projects that improve, restore or protect the watersheds, surface water and/or groundwater supplies in our local communities.

To qualify, proposed projects must meet certain criteria, including addressing a source water or watershed protection need in the community.

Examples of eligible activities include:

- Watershed cleanup
- Reforestation
- Biodiversity projects (habitat restoration, wildlife protection)
- Streamside buffer restoration projects
- Wellhead protection initiatives
- Hazardous waste collection
- Surface or groundwater protection
- Education (designing and providing workshops for citizens and local officials)



EEl 1.5.4, EEI 2.5.4

## Renewables

American Water maintains a portfolio of alternative energy sources to reduce GHG emissions and access cheaper, renewable energy. Our solar output in 2017 and 2018 totaled 6,694 megawatt-hours (MWh). Our total renewable energy consumption in 2017 and 2018 helped us avoid approximately 2,743 metric tons of carbon dioxide emissions. As of 2019, we are evaluating solar proposals at several locations, which would save capital and directly reduce our emissions.

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**Wherever possible, we consider green energy when negotiating power purchase agreements to reduce our costs and lower our carbon footprint.**

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## Commitments/Goals

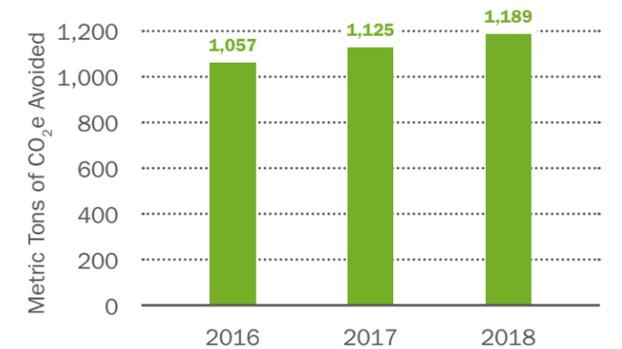
After achieving our goal to lower our GHG emissions per volume of water produced by 16% over a 10-year period (from 2007 to 2017), American Water set a new goal to reduce GHG emissions by 40% by 2025 (from a 2007 baseline).

103-3

## OUR PERFORMANCE

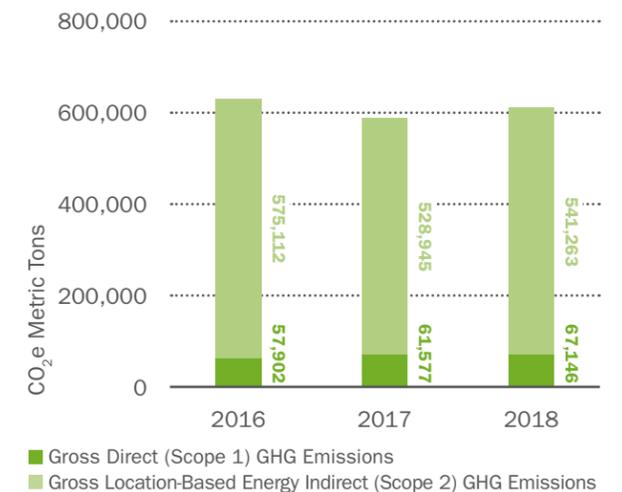
We are proud of our efforts to minimize operational energy use and the resulting emissions. We communicate our efforts with external stakeholders in our annual [CDP report](#) and, in 2019, continue to accelerate our efforts to meet our 2025 goals. We have already achieved an approximate 31% reduction in GHG emissions through 2018.

## Total Renewable Energy Generated



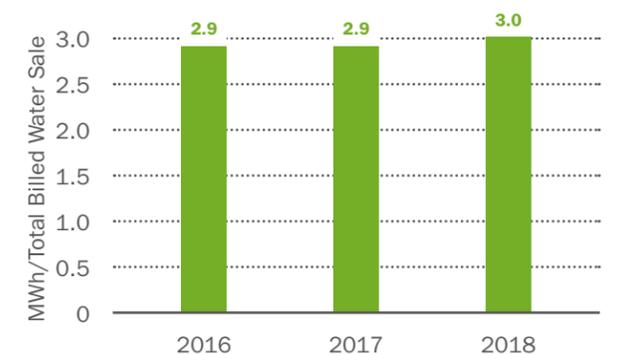
305-1, 305-2

## GHG Emissions (Scopes 1 & 2)



302-3

## Energy Intensity Ratio





GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>GRI 102</b>	<b>102-11</b>	<b>Precautionary Principle or approach</b>	
American Water does not follow the precautionary approach, but has a comprehensive risk management in place.			
<b>GRI 102</b>	<b>102-12</b>	<b>External initiatives</b>	<b>14</b>
Corporate Governance & Business Ethics, ESG Governance			
<b>GRI 102</b>	<b>102-13</b>	<b>Membership of associations</b>	<b>20</b>
Engaging Our Stakeholders, Industry Association Memberships			
<b>Strategy</b>			
<b>GRI 102</b>	<b>102-14</b>	<b>Statement from senior decision-maker</b>	<b>6-7</b>
Greetings from Our President & CEO			
<b>Ethics &amp; Integrity</b>			
<b>GRI 102</b>	<b>102-16</b>	<b>Values, principles, standards, and norms of behavior</b>	<b>11</b>
About American Water, Our Values			
<b>GRI 102</b>	<b>102-17</b>	<b>Mechanisms for advice and concerns about ethics</b>	<b>15</b>
Corporate Governance & Business Ethics, Our Code of Ethics			
<b>Governance</b>			
<b>GRI 102</b>	<b>102-18</b>	<b>Governance structure</b>	<b>13-14</b>
Corporate Governance & Business Ethics, ESG Governance			
<b>Stakeholder Engagement</b>			
<b>GRI 102</b>	<b>102-40</b>	<b>List of stakeholder groups</b>	<b>19</b>
Doing Well by Engaging Stakeholders, Engaging Our Stakeholders			
<b>GRI 102</b>	<b>102-41</b>	<b>Collective bargaining agreements</b>	
As of December 31, 2018, approximately 49% of our workforce was represented by unions, which include 70 collective bargaining agreements with 15 different unions.			
<b>GRI 102</b>	<b>102-42</b>	<b>Identifying and selecting stakeholders</b>	<b>19</b>
Doing Well by Engaging Stakeholders, Engaging Our Stakeholders			
<b>GRI 102</b>	<b>102-43</b>	<b>Approach to stakeholder engagement</b>	<b>19</b>
Doing Well by Engaging Stakeholders, Engaging Our Stakeholders			
<b>GRI 102</b>	<b>102-44</b>	<b>Key topics and concerns raised</b>	<b>19</b>
Doing Well by Engaging Stakeholders, Engaging Our Stakeholders			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>Reporting Practices</b>			
<b>GRI 102</b>	<b>102-45</b>	<b>Entities included in the consolidated financial statements</b>	
2018 Form 10-K, Our Business (Page 3)			
<b>GRI 102</b>	<b>102-46</b>	<b>Defining report content and topic Boundaries</b>	<b>17</b>
Doing Well by Engaging Stakeholders, Materiality Assessment Process			
<b>GRI 102</b>	<b>102-47</b>	<b>List of material topics</b>	<b>18</b>
Materiality Assessment Process, Our Prioritized Material Topics			
<b>GRI 102</b>	<b>102-48</b>	<b>Restatements of information</b>	
In previous years we did not report in alignment with GRI standards. We have restated data where relevant to match GRI expectations.			
<b>GRI 102</b>	<b>102-49</b>	<b>Changes in reporting</b>	
In accordance with GRI standards, this report focuses on the topics identified as most material to our business during our recent materiality assessment.			
<b>GRI 102</b>	<b>102-50</b>	<b>Reporting period</b>	<b>5</b>
Doing Well by Doing Good, About This Report			
<b>GRI 102</b>	<b>102-51</b>	<b>Date of most recent report</b>	<b>5</b>
Doing Well by Doing Good, About This Report			
<b>GRI 102</b>	<b>102-52</b>	<b>Reporting cycle</b>	<b>5</b>
Doing Well by Doing Good, About This Report			
<b>GRI 102</b>	<b>102-53</b>	<b>Contact point for questions regarding the report</b>	<b>5</b>
Please contact our ESG Manager Abbey Barksdale at <a href="mailto:Abbey.Barksdale@amwater.com">Abbey.Barksdale@amwater.com</a> with questions or feedback.			
<b>GRI 102</b>	<b>102-54</b>	<b>Claims of reporting in accordance with the GRI Standards</b>	<b>5</b>
We prepared this report in accordance with the GRI Standards: Core option.			
<b>GRI 102</b>	<b>102-55</b>	<b>GRI content index</b>	<b>96</b>
<b>GRI 102</b>	<b>102-56</b>	<b>External assurance</b>	
None			

# GRI Standards: Topic-Specific Disclosures

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>Economic</b>			
<b>Water Infrastructure</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	69
<a href="#">Water Infrastructure, Why It Matters</a>			
GRI 103: Management Approach 2016	103-2	Management approach and its components	70-73
<a href="#">Water Infrastructure, Our Approach</a>			
GRI 103: Management Approach 2016	103-3	Evaluation of management approach	73
<a href="#">Water Infrastructure, Our Performance</a>			
		<b>Metric</b>	<b>Average age of pipes (Years)</b>
As of December 31, 2018, the average age of pipes was 45 years. (Based on our records of install dates for 85% of our mains and pipes. Approximately 9% of pipes and mains were installed prior to 1940.)			
		<b>SASB IF-WU-140a.1</b>	<b>Water main replacement rate</b>
Accounting Metric		2015	2016
Water Main Replacement Rate (Percent)		0.82	0.77
Water Main Replacement Rate (Years)		122	130
		2017	2018
		167	169
		2019 (Est.)	122
		<b>SASB IF-WU-450a.3</b>	<b>Number of unplanned service disruptions</b>
Accounting Metric		2015	2016
Number of Unplanned Service Disruptions (Main Breaks per Mile)		0.29	0.27
		2017	2018
		0.26	0.27
<b>Climate Variability</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	74
<a href="#">Climate Variability, Why It Matters</a>			
GRI 103: Management Approach 2016	103-2	Management approach and its components	74-76
<a href="#">Climate Variability, Our Approach</a>			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
GRI 103: Management Approach 2016	103-3	Evaluation of management approach	77
<a href="#">Climate Variability, Our Performance</a>			
GRI 201	201-2	Financial implications and other risks and opportunities due to climate change	
<a href="#">See CDP Response (Sections C2 Risks &amp; Opportunities)</a>			
GRI 201	SASB IF-WU-450a.1	Wastewater Treatment Capacity Located in 100-Year Flood Zones	77
<a href="#">Climate Variability, Our Performance</a>			
<b>Water Supply Resilience</b>			
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundaries	78
<a href="#">Water Supply Resilience, Why It Matters</a>			
GRI 103: Management Approach 2016	103-2	Management approach and its components	78-82
<a href="#">Water Supply Resilience, Our Approach</a>			
GRI 103: Management Approach 2016	103-3	Evaluation of management approach	82
<a href="#">Water Supply Resilience, Our Performance</a>			
		<b>EEI 8.2</b>	<b>Total Water Withdrawal from All Areas</b>
<a href="#">Water Supply Resilience, Our Performance</a>			
		<b>EEI 8.2</b>	<b>Surface Water Withdrawal</b>
<a href="#">Water Supply Resilience, Our Performance</a>			
		<b>EEI 8.2</b>	<b>Groundwater Withdrawal</b>
<a href="#">Water Supply Resilience, Our Performance</a>			
		<b>EEI 8.2</b>	<b>Third-Party Water</b>
<a href="#">Water Supply Resilience, Our Performance</a>			
		<b>Percentage of Water Sourced from Water Stressed Regions</b>	<b>82</b>
<a href="#">Water Supply Resilience, Our Performance</a>			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>Water Use &amp; Efficiency</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>85</b>
<a href="#">Water Use &amp; Efficiency, Why It Matters</a>			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>		<b>85-90</b>
<a href="#">Water Use &amp; Efficiency, Our Approach</a>			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>90</b>
<a href="#">Water Use &amp; Efficiency, Our Performance</a>			
	<b>SASB IF-WU-420a.2</b>	<b>Customer water savings from efficiency measures</b>	<b>89</b>
<a href="#">Water Use &amp; Efficiency, Residential Customer Water Savings</a>			
	<b>SASB IF-WU-140a.2</b>	<b>Volume of non-revenue real water losses</b>	<b>90</b>
<a href="#">Water Use &amp; Efficiency, Non-Revenue Real Water Losses</a>			
	<b>SASB IF-WU-420a.1</b>	<b>Percentage of Water Utility Revenues from Rate Structures that are Designed to Promote Conservation and Revenue Resilience</b>	<b>90</b>
<a href="#">Water Use &amp; Efficiency, Revenues from Rate Structures Promoting Conservation</a>			
<b>Environmental</b>			
<b>Energy</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>92</b>
<a href="#">Energy &amp; Emissions, Why It Matters</a>			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>92-95</b>
<a href="#">Energy &amp; Emissions, Our Approach</a>			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>95</b>
<a href="#">Energy &amp; Emissions, Our Performance</a>			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>GRI 302</b>	<b>302-1</b>	<b>Energy Consumption within the organization</b>	
		Unit	2016 2017 2018
Total Fuel Consumption from Nonrenewable Sources		Joules (Millions)	954,540,000 1,021,489,200 1,128,560,400
		MWh	266,305 284,908 313,489
		CO <sub>2</sub> e (Metric Tons)	56,664 60,340 65,908
Total Fuel Consumption from Renewable Sources		Joules	
Renewable Energy Consumption		Joules (Millions)	11,012,400 11,714,400 12,384,000
		MWh	4,493 4,493 3,440
		CO <sub>2</sub> e (Metric Tons)	1554 1554 1189
Electricity Consumption		Joules (Millions)	3,656,592,000 3,686,382,000 3,766,680,000
		MWh	1,015,720 1,023,995 1,046,300
		CO <sub>2</sub> e (Metric Tons)	575,112 528,945 541,263
Heating Consumption		Joules	
Cooling Consumption		Joules	
Steam Consumption		Joules	
Electricity Sold		Joules	
Heating Sold		Joules	
Cooling Sold		Joules	
Steam Sold		Joules	
Total Energy Consumption (Total Energy Consumption = Non-renewable fuel consumed + renewable energy consumed + Electricity, heating, cooling and steam purchased for consumption + self-generated electricity, heating, cooling and steam, which are not consumed – electricity, heating cooling and steam sold)		Joules (Millions)	4,622,144,400 4,719,585,600 4,907,624,400
		MWh	1,286,518 1,313,396 1,363,229
		CO <sub>2</sub> e (Metric Tons)	633,330 590,839 608,360
Total Renewable Energy Generated		Joules (Millions)	11,012,400 11,714,400 12,384,000
		MWh	3,059 MWh 3,254 MWh 3,440 MWh
		CO <sub>2</sub> e (Avoided Metric Tons)	1,057 1,125 1,189
Standards, Methodologies, Assumptions and/or Calculation Tools Used		Engie: Energy Management Company/Carbon Management System Total energy consumption is per GRI definition instructions.	
Source of the Conversion Factors Used		Engie: Energy Management Company/Carbon Management System	
<b>GRI 302</b>	<b>302-3</b>	<b>Energy Intensity</b>	<b>95</b>
		2016 2017 2018	
Energy Intensity			
Energy Intensity Ratio (MWh/Total Billed Water Sale)		2.9 2.9 3.0	
Numerator (MWh)		1,010,475 1,012,020 1,044,284	
Denominator (Mgal)		346,231 347,312 344,482	
Types of Energy Included (Fuel, Electricity, Heating, Cooling, Steam or All)		All All All	
Whether the ratio uses energy consumption within the organization, outside of it, or both		Within the organization. We divided energy utilized (MWh) by Total billed water sales (Mgal). Source: 2018 Form 10-K	

GRI Standard	Disclosure Number	Disclosure Title	Page Number		
	<b>EEI 1.5.4</b>	<b>Owned Nameplate Generation Capacity at end of year (MW): Solar</b>	<b>95</b>		
<a href="#">Energy &amp; Emissions, Renewables</a>					
	<b>EEI 2.5.4</b>	<b>Net Generation for the data year (MWh): Solar</b>	<b>95</b>		
<a href="#">Energy &amp; Emissions, Renewables</a>					
<b>Emissions</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>92</b>		
<a href="#">Energy &amp; Emissions, Why It Matters</a>					
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>92–95</b>		
<a href="#">Energy &amp; Emissions, Our Approach</a>					
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>95</b>		
<a href="#">Energy &amp; Emissions, Our Performance</a>					
<b>GRI 305</b>	<b>305-1</b>	<b>Direct (Scope 1) GHG Emissions</b>	<b>95</b>		
		Unit	2016	2017	2018
Gross Direct (Scope 1) GHG Emissions		CO <sub>2</sub> e (Metric Tons)	57,902	61,577	67,146
Carbon Dioxide (CO <sub>2</sub> )		CO <sub>2</sub> e (Metric Tons)	57,842	61,507	67,070
Methane (CH <sub>4</sub> )		CO <sub>2</sub> e (Metric Tons)	46	50	58
Nitrous Oxide (N <sub>2</sub> O)		CO <sub>2</sub> e (Metric Tons)	14	20	18
Refrigerants (Leakage of A/C Refrigerant—Vehicles and A/C)		CO <sub>2</sub> e (Metric Tons)		1,212	1,212
Biogenic CO <sub>2</sub> Emissions		CO <sub>2</sub> e (Metric Tons)			
Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source		EPA: Center for Corporate Climate Leadership Engie: Energy Management Company/Carbon Management System			
Consolidation approach for emissions; whether equity share, financial control, or operational control.		Financial and operational control			
Standards, methodologies, assumptions and/or calculation tools used		Engie: Energy Management System/Carbon Management System EPA: Greenhouse Gas Equivalencies Calculator			

GRI Standard	Disclosure Number	Disclosure Title	Page Number		
<b>GRI 305</b>	<b>305-2</b>	<b>Energy indirect (Scope 2) GHG Emissions</b>	<b>95</b>		
		Unit	2016	2017	2018
Gross Location-based Energy Indirect (Scope 2) GHG Emissions		CO <sub>2</sub> e (Metric Tons)	575,112	528,945	541,263
Gross Market-based Energy Indirect (Scope 2) GHG Emissions (if applicable)		CO <sub>2</sub> e (Metric Tons)	575,112	528,945	541,263
Carbon Dioxide (CO <sub>2</sub> )		CO <sub>2</sub> e (Metric Tons)	571,049	525,802	538,026
Methane (CH <sub>4</sub> )		CO <sub>2</sub> e (Metric Tons)	1,286	785	809
Nitrous Oxide (N <sub>2</sub> O)		CO <sub>2</sub> e (Metric Tons)	2,777	2,358	2,428
Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source		EPA: Center for Corporate Climate Leadership Engie: Energy Management Company/Carbon Management System			
Consolidation approach for emissions; whether equity share, financial control, or operational control		Financial and operational control			
Standards, methodologies, assumptions and/or calculation tools used		EPA: Greenhouse Gas Equivalencies Calculator Engie: Energy Management System/Carbon Management System			
<b>Social</b>					
<b>Employment</b>					
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>40</b>		
<a href="#">Talent Attraction, Engagement &amp; Retention, Why It Matters</a>					
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>40–48</b>		
<a href="#">Talent Attraction, Engagement &amp; Retention, Our Approach</a>					
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>49</b>		
<a href="#">Talent Attraction, Engagement &amp; Retention, Our Performance</a>					

GRI Standard	Disclosure Number	Disclosure Title								Page Number
<b>GRI 401</b>	<b>401-1</b>	<b>New employee hires and employee turnover</b>								<b>41, 51</b>
		2015		2016		2017		2018		
Employee Hires		#	Rate	#	Rate	#	Rate	#	Rate	
Total		657	10%	714	10.9%	700	10.7%	1260	18.4%	
By Age Group										
Under 30		137	20.9%	180	25.2%	218	31.1%	404	32.1%	
30-50		384	58.4%	366	51.3%	373	53.3%	635	50.4%	
Over 50		136	20.7%	168	23.5%	109	15.6%	221	17.5%	
By Gender										
Male		454	69.1%	477	66.8%	487	69.6%	767	60.9%	
Female		203	30.9%	237	33.2%	213	30.4%	493	39.1%	
By Region <sup>1</sup>										
California-Hawaii		28	4.3%	29	4.1%	41	5.9%	30	2.4%	
Midwest		112	17.0%	102	14.3%	168	24.0%	165	13.1%	
Mid-Atlantic		60	9.1%	124	17.4%	93	13.3%	153	12.1%	
Eastern		110	16.7%	79	11.1%	84	12.0%	120	9.5%	
Southeast		26	4.0%	20	2.8%	21	3.0%	36	2.9%	
Corporate		171	26.0%	150	21.0%	188	26.9%	302	24.0%	
Contract Services		52	7.9%	88	12.3%	52	7.4%	32	2.5%	
Military Services		43	6.5%	41	5.7%	40	5.7%	62	4.9%	
Homeowner Services		55	8.4%	81	11.3%	13	1.9%	360	28.6%	
Employee Turnover		#	Rate	#	Rate	#	Rate	#	Rate	
Total		645	9.9%	671	10.5%	737	10.9%	957	13.9%	
By Age Group										
Under 30		102	15.8%	91	13.6%	134	18.2%	206	21.5%	
30-50		230	35.7%	266	39.6%	268	36.4%	358	37.4%	
Over 50		313	48.5%	314	46.8%	335	45.4%	393	41.1%	
By Gender										
Male		426	66.0%	457	68.1%	501	68%	632	66%	
Female		219	34.0%	214	31.9%	236	32%	325	34%	
By Region <sup>1</sup>										
California-Hawaii		29	4.5%	31	4.6%	32	4.3%	23	2.4%	
Midwest		127	19.6%	118	17.6%	134	18.2%	133	13.9%	
Mid-Atlantic		78	12.0%	85	12.7%	104	14.1%	130	13.6%	
Eastern		75	11.6%	90	13.4%	86	11.7%	93	9.7%	
Southeast		18	2.8%	21	3.1%	19	2.6%	23	2.4%	
Corporate		211	32.5%	172	25.6%	203	27.5%	297	31.1%	
Contract Services		45	7.6%	100	14.9%	73	9.9%	138	14.4%	
Military Services		39	6.0%	33	4.9%	39	5.3%	49	5.1%	
Homeowner Services		23	3.5%	21	3.1%	47	6.4%	70	7.3%	

<sup>1</sup>Amounts may not sum to 100% due to rounding.

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>GRI 401</b>	<b>401-2</b>	<b>Benefits provided to full-time employees that are not provided to temporary or part-time employees</b>	<b>42</b>
Talent Attraction, Engagement & Retention, Compensation & Benefits			
<b>Occupational Health &amp; Safety</b>			
<b>GRI 403: Management Approach 2018</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>31</b>
Occupational Health & Safety, Why It Matters			
<b>GRI 403: Management Approach 2018</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>31-38</b>
Occupational Health & Safety, Our Approach			
<b>GRI 403: Management Approach 2018</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>39</b>
Occupational Health & Safety, Our Performance			
<b>GRI 403: Management Approach 2018</b>	<b>403-1</b>	<b>Occupational health and safety management system</b>	<b>33</b>
Occupational Health & Safety, Occupational Health & Safety Management System			
<b>GRI 403: Management Approach 2018</b>	<b>403-2</b>	<b>Hazard identification, risk assessment, and incident investigation</b>	<b>33-34</b>
Occupational Health & Safety, Incident Investigation			
<b>GRI 403: Management Approach 2018</b>	<b>403-3</b>	<b>Occupational health services</b>	<b>35</b>
Occupational Health & Safety, Occupational Health Services			
<b>GRI 403: Management Approach 2018</b>	<b>403-4</b>	<b>Worker participation, consultation, and communication on occupational health and safety</b>	<b>36-37</b>
Occupational Health & Safety, Communication			
<b>GRI 403: Management Approach 2018</b>	<b>403-5</b>	<b>Worker training on occupational health and safety</b>	<b>36</b>
Occupational Health & Safety, Occupational Health & Safety Training			
<b>GRI 403: Management Approach 2018</b>	<b>403-6</b>	<b>Promotion of worker health</b>	<b>35</b>
Occupational Health & Safety, Occupational Health Services			
<b>GRI 403: Management Approach 2018</b>	<b>403-7</b>	<b>Prevention and mitigation of occupational health and safety impacts directly linked by business relationships</b>	<b>14</b>
Occupational Health & Safety, Our Performance			



GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>Diversity &amp; Equal Opportunity</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>40</b>
Talent Attraction, Engagement & Retention, Why It Matters			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>40–48</b>
Talent Attraction, Engagement & Retention, Our Approach			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>49–50</b>
Talent Attraction, Engagement & Retention, Our Performance			
<b>GRI 405</b>	<b>405-1</b>	<b>Diversity of governance bodies and employees</b>	
		2015	2016
		2017	2018
		2019	
By Gender	Male	5	4
	Female	4	5
By Age Group	Under 30	0	0
	30–50	0	0
	Over 50	100	100
2015–2018 data as disclosed in our Proxy Statements; 2019 data as of July 25, 2019.			
<b>Local Communities</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>26</b>
Local Communities, Why It Matters			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>26–29</b>
Local Communities, Our Approach			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>27, 29</b>
Local Communities, AmeriCANs in Action! Month of Service Volunteer Hours Local Communities, Foundation Matched Funds for Employees			
<b>GRI 413</b>	<b>413-1</b>	<b>Operations with local community engagement, impact assessments, and development programs</b>	<b>26</b>
Local Communities, Our Approach			
<b>GRI 413</b>	<b>413-2</b>	<b>Operations with significant actual and potential negative impacts on local communities</b>	<b>26</b>
Local Communities, Our Approach			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>Public Policy</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>21</b>
Policy Influence, Why It Matters			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>21–24</b>
Policy Influence, Our Approach			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>24</b>
Policy Influence, Our Performance			
<b>GRI 415</b>	<b>415-1</b>	<b>Political Contributions</b>	<b>24</b>
Policy Influence, Our Performance			
<b>Customer Experience</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>53</b>
Customer Experience, Why It Matters			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>53–56</b>
Customer Experience, Our Approach			
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>57</b>
Customer Experience, Our Performance			
	<b>Metric</b>	<b>Customer satisfaction survey rating</b>	<b>57</b>
Customer Experience, Key Metrics			
<b>Water Affordability &amp; Access</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>58</b>
Water Affordability & Access, Why It Matters			
<b>GRI 103: Management Approach 2016</b>	<b>103-2</b>	<b>Management approach and its components</b>	<b>58–59</b>
Water Affordability & Access, Our Approach			

GRI Standard	Disclosure Number	Disclosure Title	Page Number
<b>GRI 103: Management Approach 2016</b>	<b>103-3</b>	<b>Evaluation of management approach</b>	<b>59</b>
Water Affordability & Access, Our Performance			
	<b>SASB IF-WU-240a.1</b>	<b>Average Retail Water Rate for Residential, Commercial and Industrial Customers</b>	<b>59</b>
Water Affordability & Access, Our Performance			
		<b>Typical combined monthly water and wastewater bill for residential customers</b>	<b>59</b>
Water Affordability & Access, Our Performance			
	<b>SASB IF-WU-240a.3</b>	<b>Number of Residential Customer Water Disconnections for Non-Payment, Percentage Reconnected Within 30 Days</b>	<b>59</b>
Water Affordability & Access, Our Performance			
<b>Water Quality &amp; Emerging Contaminants</b>			
<b>GRI 103: Management Approach 2016</b>	<b>103-1</b>	<b>Explanation of the material topic and its Boundaries</b>	<b>60</b>
Water Quality & Emerging Contaminants, Why It Matters			
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<b>IF-WU-140a.1</b>	<b>Water Main Replacement Rate</b>	
Accounting Metric		2015 2016 2017 2018 2019 (Est.)
Water Main Replacement Rate (Percent)		0.82 0.77 0.60 0.59 .82
Water Main Replacement Rate (Years)		122 130 167 169 122
<b>IF-WU-140a.2</b>	<b>Volume of non-revenue real water losses</b>	<b>90</b>
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<b>IF-WU-450a.3</b>	<b>Number of unplanned service disruptions</b>	
Accounting Metric		2015 2016 2017 2018
Number of Unplanned Service Disruptions (Main Breaks per Mile)		0.29 0.27 0.26 0.27



## Forward Looking Statement

This presentation includes forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and the Federal securities laws. They are not guarantees or assurances of any outcomes, financial results or levels of activity, performance or achievements, and readers are cautioned not to place undue reliance upon them. The forward-looking statements are subject to a number of estimates and assumptions, and known and unknown risks, uncertainties and other factors. Actual results may differ materially from those discussed in the forward- looking statements included in this report. The factors that could cause actual results to differ are discussed in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on February 19, 2019, and subsequent filings with the SEC. Except as required by the federal securities laws, we do not have any obligation, and we specifically disclaim any undertaking or intention, to publicly update or revise any forward-looking statements, whether as a result of new information, future events, changed circumstances or otherwise.



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