Understanding Jersey WaterCheck Data - Metrics

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Overview

This document lists Jersey WaterCheck metrics by “Communications Category” with:

- Relevant metric descriptor
- Survey question (if applicable)
- Data source
- Additional contextual information, and data source

This document has been reviewed by the Jersey Water Check data advisory committee.

Metrics

Metric Categorization

The initial set of metrics for this dashboard were created based on the Jersey Water Works goals and subgoals. This initial set went through rigorous review by both the data advisory committee and the utility coalition, which narrowed the list to the final metrics appearing on the dashboard.

On the JWW Shared Goals page, as well as on the Benchmark Hub page, metrics are categorized according to Jersey Water Works goals and subgoals. On a particular system page, metrics are

displayed on cards that are organized based on “Communication Categories,” which were created specifically for this dashboard. The following section includes more in-depth information (in addition to the metric descriptors featured on the Benchmark Hub page) for the metrics by the Communication Categories. It also includes the survey questions that informed the metrics, where relevant.

What is the Condition of My System?

Met NJ Water Quality Accountability Act standards for asset management

Metric Descriptor
At an individual system level, this metric shows if the drinking water system has certified that it has an Asset Management Plan that met NJ Water Quality Accountability Act requirements. The Water Quality Accountability Act requires systems with more than 500 connections to create long-term plans (i.e., asset management plans) and to use industry-standard practices to test valves and fire hydrants. Systems that exceed a threshold of violations in a year must report to the State how they plan to correct them. The violations can be in connection with reporting or water quality. Systems must take measures to address cyber security and must certify annually that they comply with federal and State drinking water regulations and the WQAA. For a more detailed overview of the WQAA, click here.

Note: Systems may have updated results from the latest data shown here.

State Level
Calculation: Percentage of all NJ drinking water systems that have certified that they have an Asset Management Plan that met NJ Water Quality Accountability Act requirements. The percentage was calculated out of the number of systems with either a "Yes" or "No" value, rather than out of the total number of systems in New Jersey.

Data Source: NJ Department of Environmental Protection (NJDEP)

Additional Information
It is important to note that the Water Quality Accountability Act is a State statute, as opposed to the primary and secondary drinking water standards that are New Jersey’s implementation of the federal standards.

Percentage of treated drinking water sent out for distribution that is not billed to customers

Metric Descriptor

At an individual system level, this measure shows the percentage of treated drinking water that leaves the treatment plant (i.e., is put into the individual system) but is not billed to customers, which is an indication of water losses and the uses of water for non-billed practices (e.g., flushing lines, fire fighting). Water and sewer lines are under the ground and subject to many stresses. Even the most effectively managed system will have leaks or, as in the case of a sewer line, inflow and infiltration. Water not billed to customers includes: water given for free to local governments such as for firefighting, water used for flushing mains, water theft, water lost through leaks, etc. Seismic activity, cold/hot cycles, and impacts of other activities or utilities near the pipe can all cause pipe leaks and breaks. Results are often available for larger systems, and less frequently for small systems except where required by regulatory agencies.

Once water is treated, it is sent out for distribution and customers are billed based on usage. Note that some water is not billed to customers for a variety of reasons mentioned above. Information from this metric can help educate your community about opportunities to reduce water loss and increase efficiency.

Note: The Delaware River Basin Commission (DRBC) compiles data for systems that withdraw over 100,000 gallons per day from ground or surface water sources over a 30 day period, using the American Water Works Association method; the Board of Public Utilities requires the AWWA method to be used by utilities it regulates. NJDEP currently uses a less detailed method.

State Level

Calculation: total amount of treated drinking water (million gallons per year) that leaves the treatment plant (i.e., is put into the system) but is not billed to customers.

Data Source: Delaware River Basin Commission (DRBC)

Average annual capital budget for drinking water/wastewater infrastructure

Metric Descriptor

At an individual system level, this metric shows the average annual capital budget for the (drinking water/wastewater) system based on budgets for the past three years.

Capital budgets show planned expenditures for infrastructure upgrades and replacements that can help ensure that water systems are robust and reliable. Because accounting practices vary based on governing structures, comparisons should be made with caution.

Note: The data for this metric are from multiple types of sources. Some utilities provided the data through a survey. Some data was found in documents posted on a utility's website, such as internal budgets or financial statements that included capital investments. Some data was found in the utility's Division of Local Government Services documents, which may or may not have accurate capital budgets, and which do not have actual amounts spent on capital projects. Again, comparisons should be made with caution.

Note: For some wastewater utilities with multiple facilities, this value represents the aggregate for all facilities that the utility operates.

State Level
Calculation: Average annual capital budget for (drinking water/wastewater) systems based on budgets for the past three years.

Data Source: Survey

Utility Survey Question
Please provide the total dollar amount you budgeted for capital projects in fiscal years 2017, 2018, and 2019.

Actual annual capital expenditures for drinking water/wastewater infrastructure

Metric Descriptor
At an individual system level, this metric shows the average annual capital expenditures for the (drinking water/wastewater) system over the past three years.

(*Water*) Capital expenditures refer to the funds actually spent by the system on capital improvements, major repairs, rehabilitation or replacement of infrastructure like tanks, wells, water lines, treatment plants, and other capital assets.
(*Wastewater*) Capital expenditures refer to the funds actually spent by the system on capital improvements, major repairs, rehabilitation or replacement of infrastructure such as sewer lines, treatment plants, pumps, and other capital assets.

The metric includes debt service on loans as well as cash expenditures also known as "pay as you go."

Capital expenditures show the actual amounts spent on infrastructure upgrades and replacements that can help ensure that water systems are robust and reliable. Because accounting practices vary based on governing structures, comparisons should be made with caution.

Note: The data for this metric are from multiple types of sources. Some utilities provided the data through a survey. Some data was found in documents posted on a utility's website, such as internal budgets or financial statements that included capital investments. Some data was found in the utility's Division of Local Government Services documents, which may or may not have accurate capital budgets, and which do not have actual amounts spent on capital projects. Again, comparisons should be made with caution.

Note: For some wastewater utilities with multiple facilities, this value represents the aggregate for all facilities that the utility operates.

State Level
Calculation: Average annual capital expenditures for (drinking water/wastewater) systems over the past three years.

Data Source: Survey

Utility Survey Question
Please provide the total dollar amount you spent on capital projects in fiscal years 2017, 2018, and 2019.

Percentage of actual expenditures spent on operations and maintenance

Metric Descriptor
At an individual system level, this metric indicates the extent to which a utility's costs are for normal operations and minor repairs and maintenance. Operations and maintenance costs are the daily expenses of running a water system, including salaries, treatment costs, maintenance, laboratory fees, utilities, and insurance. (The other major cost is capital expenditures, addressed elsewhere.) Consistently high values here indicate that the utility either is relatively new (requiring few capital expenditures) or is overly focused on operations and maintenance.

Because the age, condition, and maintenance history of each system is unique, and because the cost of operations is unique to each system, you should be careful to compare your system's percentage to those of other systems. The percentage that is best for one system may be different from the percentage that is best for a different system. This metric helps you understand how much of annual expenditures are going to cover day-to-day expenses, as compared to expenditures related to capital projects. Certainly, O&M expenditures are necessary to protect public health and to keep the system functioning day-to-day. But capital expenditures are needed for the long-term health of the system. Older systems with capital needs are expected to see a relatively lower percentage than newer systems with fewer capital needs would have.

Note: For some wastewater utilities with multiple facilities, this value represents the aggregate for all facilities that the utility operates.

State Level
Calculation: Average percentage of utility expenditures that are for operations and maintenance for utilities (drinking water and wastewater).

Data Source: Survey

Calculation: This metric was calculated using two values provided in the utility survey: capital expenses and operating expenses. The equation is as follows:

$$Operating\ Expenses \div (Capital\ Expenses\ +\ Operating\ Expenses)$$

Operating ratio, which compares operating revenues to operating expenses

Metric Descriptor
This metric shows the comparison or ratio of annual operating revenue to annual operating expense. Operating ratio does not include debt service, grants, loans or capital expenditures. To cover all operating expenses, the ratio needs to be at least 1.0, though a ratio of 1.5 or higher is desirable.

Operating ratio looks at the amount of revenue your system generates in a year relative to its costs. It's important to recognize that because accounting practices vary, some systems will include depreciation as an operating expense, so the ratio of one system should be compared to the ratios of other systems with caution. But what is more important is whether an individual system is meeting accepted benchmarks for the ratio. This metric helps inform communities the degree to which their system is self-sufficient, which is critical to protecting public health and maintaining the system over the long term.

Note: For some wastewater utilities with multiple facilities, this value represents the aggregate for all facilities that the utility operates.

State Level
Calculation: Average of system level values

Data Source: Survey
Calculated from survey responses

Utility Survey Questions

1) What were your operating expenses for the most recent fiscal year? Please provide the amount and the year.

Note: Operating expenses do not include debt service and are defined here as the ongoing expenses of running a water system, including salaries, treatment costs, maintenance, laboratory fees, utilities, and insurance.

2) What were your operating revenues for the most recent fiscal year? Please provide the amount and the year.

Calculation: This metric was calculated using two values provided in the utility survey. The equation is as follows:

$$Operating\ Revenues \div Operating\ Expenses$$

Receives funding from NJ or federal infrastructure programs

Metric Descriptor

At an individual system level, this metric shows if the system receives funding, including low-interest loans, from State or federal drinking water and wastewater infrastructure programs. Data was gathered through a survey as well as through information provided by the New Jersey Infrastructure Bank (I-Bank) on both long-term loans and outstanding short-term construction loans which are converted to long-term loans upon project completion. Based on the I-Bank data, systems with no record of loans are counted as a "No." Additionally, systems with loans that closed before 2019 and without any active loans as of late 2020 are counted as a "No." All other systems are counted as a "Yes."

Note: Not all capital projects are eligible for federal/State funds, and not all eligible projects request funds or are funded if they apply, depending on fund availability. Systems can also finance capital projects using cash flow, special fees, or market-rate bonds.

State Level

Calculation: Percentage of all utility systems (drinking water and wastewater) that receive funds, including low-interest loans, from NJ or federal drinking water and wastewater infrastructure programs.

Data Source: Survey and NJ Infrastructure Bank

Utility Survey Question

In the past 12 months has your utility received funding, including low-interest loans, from state or federal drinking water/wastewater infrastructure programs?

Additional Information

The federal government gives each state funds based on input including a periodic needs survey completed by the systems. New Jersey uses the funds for its Infrastructure Bank (I-Bank), which as the name suggests, issues low-cost loans to systems. Using I-Bank funds is widely considered preferable because it keeps the cost of borrowing lower than it might otherwise be and can therefore help minimize rate increases. However, some systems may finance capital projects using special fees (e.g., the Distribution System Improvement Charge) or by issuing bonds. Other systems finance capital projects through annual revenue, using a “Repair and Replacement” line item in their budget. Note that not all capital projects receive federal and/or state funds.

For drinking water utilities, I-Bank funds are loaned to government units (authorities, municipalities) or corporations (only under certain circumstances). Corporations that borrow funds for water systems only have access to Safe Drinking Water funds, not Clean Water funds.

Annual residential cost/price of drinking water in 2020

Metric Descriptor

At an individual system level, this metric shows the estimated cost of drinking water services in 2020 for a household using 45,000 gallons of water per year. This metric is based on data collected for "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021).

To make tap water potable and deliver it reliably, your drinking water system’s rate structure needs to ensure there is enough revenue to meet all needs. These needs include pumping, treating, distributing, operating and maintaining the system to meet all state and federal regulations. Low rates are not necessarily better than high rates, since water systems need revenues to upgrade and maintain pipes and treatment plants to keep them running as efficiently and reliably as possible, to comply with government regulations, and to meet customers’ expectations. It's important to understand this when looking at individual system response and making any comparisons with other systems and/or personal utility bills. Information in this metric can help convey how the cost of tap water compares to that of bottled water, which is often more expensive and contributes to pollution. Your system should regularly update their rate schedule to reflect the true cost of providing your service.

Note: The costs listed here were current in 2020. However, some utilities have notified Jersey Water Works that a change to the rate schedule has been adopted, which will be reflected in future calculations. Additionally, please note that the reported value is an estimation, based on an annual fixed volume. Thus, a specific household’s utility bill may be different, as their usage may

differ and their bill can include other fees that have not been factored into the research and analysis.

See Methodology document for more details on the calculation for these numbers.

State Level
Calculation: Estimated average weighted cost of drinking water services in 2020 for households using 45,000 gallons of water per year. The weighted average is based on population served for each utility with cost information, which was calculated using 2014-2018 American Community Survey population estimates via a geospatial analysis.

Data Source: Research

Annual residential cost/price of sewer services in 2020

Metric Descriptor
At an individual system level, this metric shows the estimated cost of sewer services in 2020 for a household using 45,000 gallons of water per year. For utilities that serve multiple municipalities, wherein the costs vary by municipality, the value represents a weighted average*, using population estimates from the American Community Survey (2014-2018) for the service area in each municipality. This metric is based on data collected for "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021).

Information from this metric can help convey how a system's rate structures ensure they have enough revenue to operate in a financially sound manner and meet current and future needs. Low rates are not necessarily better than high rates, since the sewer service system's rate structure needs to meet the goals of safe, dependable service to comply with government regulations, and to meet customers' expectations. It's important to understand this when looking at individual system response and making any comparisons to other systems and/or your own utility bill.

Note: The costs listed here were current in 2020. However, some utilities have notified Jersey Water Works that a change to the rate schedule has been adopted, which will be reflected in future calculations. Additionally, please note that the reported value is an estimation, based on an annual fixed volume. Thus, a specific household's utility bill may be different, as their usage may differ and their bill can include other fees that have not been factored into the research and analysis.

*The weighted average is used to obtain a single value for the purpose of this metric, but it can be skewed due to differences in how sewer rates are established by regional treatment plants

and the municipalities it serves (i.e., the collection systems). The Understanding Jersey WaterCheck Data - Data Sources and Methodologies document features tables with more detailed information regarding the regional systems. These tables include the water and sewer rates by the system ID (PWSID and NJPDES, respectively), the municipality served, and the 45,000 gallon cost.

See Methodology document for more details on the calculation for these numbers.

State Level
Calculation: Estimated average weighted cost of sewer services in 2020 for households using 45,000 gallons of water per year. The weighted average is based on average flow rates (million gallons per day) for each utility with cost information, using flow information from NJDEP.

Data Source: Research

How Well Is My System Meeting Drinking Water Regulatory Requirements?

Met drinking water standards that protect against harmful bacteria

Metric Descriptor
At an individual system level, this metric shows whether the drinking water system met monitoring requirements and/or routinely was below the Maximum Contaminant Level (MCL) for E. coli for the Revised Total Coliform Rule (RTCR) regulatory limits according to NJ primary drinking water standards. The primary drinking water standards, also known as Maximum Contaminant Levels (MCLs) under the federal and State Safe Drinking Water Act, are the minimum considered necessary for maintenance of public health and to ensure safe drinking water for consumers. All federal drinking water regulations are automatically adopted into New Jersey regulations by reference. For the purposes of this measure, exceedances of the MCL for E. coli bacteria and major monitoring violations are counted, whereas reporting violations and minor monitoring violations are not.

For the purpose of this dashboard, a “Yes” response indicates that there was neither a major monitoring violation nor an exceedance of the Maximum Contaminant Level (MCL) for E. coli. A “No” response indicates that the system was reported by NJDEP to have had at least one major monitoring violation and/or exceedance of the MCL for E. coli.

Note: All water has bacteria. Presence of bacteria does not mean water is unsafe to drink. Only disease-causing bacteria lead to disease. This metric shows how well your system is meeting regulatory requirements to ensure water is potable and bacteria does not exceed a set limit as

per regulation. All systems have to do testing throughout the year to ensure they are within regulatory limits. The information for this metric is updated annually using data from NJDEP, so it may not represent current conditions. Utilities may have already resolved or started to resolve issues identified.

To learn more, please read the relevant individual system's Consumer Confidence Report (CCR) (found on the system page) or visit NJDEP Drinking WaterWatch for additional updated details that this dashboard does not provide. For additional background information on this metric, click here [link].

State Level

Calculation: Percentage of total NJ drinking water systems that met monitoring requirements and/or routinely were below the Maximum Contaminant Level (MCL) for E. coli for the Revised Total Coliform Rule (RTCR) regulatory limits according to NJ primary drinking water standards

Data Source: NJ Department of Environmental Protection (NJDEP)

Additional Information

To learn more about how public water systems are monitored, please refer to the NJDEP 2019 Annual Compliance Report. Page 19 of the report describes the Revised Total Coliform Rule in detail.

From the NJDEP 2019 Annual Compliance Report (pg. 19): "Total coliform bacteria are generally not harmful themselves, but their presence in drinking water indicates a potential pathway for contamination into the distribution system. However, the presence of E. coli, a type of coliform bacteria, does indicate a health risk. To address this risk, the Revised Total Coliform Rule adopts a "find and fix" approach which requires the water system to conduct an assessment based on the frequency and severity of the contamination to identify problems and take subsequent corrective action within a specified timeframe."

From the NJDEP 2019 Annual Compliance Report (pg. 14): "If a public water system fails to perform the required monitoring for this parameter, it incurs a monitoring violation. If a public water system performs the required monitoring but fails to report the results within the specified timeframe, it incurs a reporting violation. Most rules do not differentiate between monitoring and reporting violations, with the exception of the Revised Total Coliform Rule, which specifically splits a monitoring violation from a reporting violation. This allows the US EPA to better track and address true monitoring violations (not conducting the required monitoring) from late or non-submittal violations, which do not have as detrimental an effect on public health. Monitoring & Reporting (M&R) violations are further defined as major, when none of the required monitoring is performed and reported, and minor, when some, but not all, of the required monitoring is performed and reported."

Submitted acceptable certification form under the Water Quality Accountability Act

Metric Descriptor
At an individual system level, this metric shows whether the highest ranking official (e.g., executive director, mayor, or other top executive) certified to the NJDEP that the drinking water system met all NJ Water Accountability Act (WQAA) requirements. Each system must report annually whether or not the water system complies with all federal and State drinking water regulations and the relevant sections of the WQAA. Note that the Act only applies to drinking water systems with more than 500 service connections. For a more detailed overview of the WQAA, click here.

Note: Systems may have updated results from the latest data shown here. To check for updated results, you can search the system in NJDEP DataMiner. (Report Category > Water Supply and Geoscience > Safe Drinking Water > Water Quality Accountability Act Certification Forms)

State Level
Calculation: percentage of drinking water systems which have submitted certification forms as required by the Water Quality Accountability Act. The percentage was calculated out of the number of systems that reported either a "Yes" or "No" value, rather than out of the total number of systems in New Jersey.

Data Source: NJDEP

Additional Information
It is important to note that the Water Quality Accountability Act is a State statute, as opposed to the water quality regulations that are New Jersey's implementation of the federal standards.

Utility sampling round of residential drinking water did not equal or exceed EPA action levels for lead

Metric Descriptor
At an individual system level, this metric shows whether the system has not exceeded the US EPA Action Level for lead in any sampling round in the most recent calendar year in accordance with the federal Lead and Copper Rule (LCR). The LCR requires that utilities sample drinking water in residences of high risk for lead (or other customers if insufficient high-risk households are available). The utility is required to take action if the 90th percentile result (e.g., for 100 samples, the 10th highest result) exceeds 15 parts per billion (ppb) of lead. Note that a water system can have a small number of samples above the action level, but not incur an action level

exceedance if the 90th percentile level is below 15 ppb. All federal drinking water regulations are automatically adopted into New Jersey regulations by reference.

For the purpose of this dashboard, a “Yes” response indicates that there was no action level exceedance (ALE). A “No” response indicates that the system was reported by NJDEP to have had at least one instance of an ALE.

Note: Data for this metric is only reporting on lead and not copper. The information for this metric is updated annually using data from NJDEP, so it may not represent current conditions. Utilities may have already resolved or started to resolve issues identified. To learn more, please read the relevant individual system’s Consumer Confidence Report (CCR) (found on the system page) or visit NJDEP Drinking WaterWatch for additional details that this dashboard does not provide.

State Level
Calculation: Percentage of drinking water systems with 90th percentile lead levels in any sampling round in the most recent calendar year in accordance with the federal Lead and Copper Rule (LCR).

Additional Information
Some utilities have sampling done more than once a year. For this metric, the sampling result with the highest 90th percentile value (lead concentration in mg/L) was used to determine whether the utility exceeded the 15 parts per billion action level.

Data Source: NJ Department of Environmental Protection (NJDEP)

Number of drinking water service lines reported to be made of or contain lead

Metric Descriptor
At an individual system level, this metric shows the number of service lines within the drinking water system's service area that are comprised of or contain some level of lead in the utility-owned and/or property-owned sections, based on drinking water system reports submitted to NJDEP in 2019. Generally, service lines refer to the pipes that deliver water from the water main to an individual building.

Note: Most drinking water systems are still in the process of completing inventories of service lines and some reported numbers represent estimates; as of late 2020, the status is not yet known for many lines. Generally, an increase in the number of known lead service lines (LSLs) reported over time indicates positive progress by the water system in identifying LSLs.

Generally, a decrease indicates progress in removing LSLs. However, it is important to note that, over the course of one year, the number of known LSLs might increase and some might also be replaced, which could offset the increase. Community water systems submit this information to NJDEP as part of non-regulatory requirements or as requested by the administrative authority. To see more information, visit NJDEP Drinking WaterWatch.

State Level

Calculation: Total number of service lines of NJ's drinking water systems that are comprised of or contain some level of lead in the utility-owned and/or property-owned sections, based on drinking water system reports submitted to NJDEP in 2019.

Data Source: NJ Department of Environmental Protection (NJDEP)

Additional Information

Service lines deliver water from the distribution main to the building/home served. The utility may own none, part, or all of the service line and the property owner may own none, part, or all of the line. Replacement programs aim to replace the full length of service line containing lead regardless of the owner. It is very important to note that understanding how many service lines may need to be replaced due to lead does not necessarily indicate whether the building/residence interior plumbing contains lead. Additionally, water systems do not have responsibility for pipes and fixtures within the home/building.

Reporting: If a drinking water system incurs a lead action level exceedance, has corrosion control treatment, and triggers lead service line replacement, then the count of lead service lines is required to be submitted (along with other replacement information) annually. The NJDEP has also requested LSL inventories from all community water systems once a year for the past two years. There is no specific requirement for this reporting in the current Lead and Copper Rule; however, if a system fails to respond, NJDEP refers them to Compliance & Enforcement for follow-up. Under the Federal Safe Drinking Water Act, water systems are responsible for maintaining their records and providing any drinking water related documentation as requested by the administrative authority.

Number of lead service lines replaced in previous year(s)

Metric Descriptor

At an individual system level, this metric shows the number of lead service lines that were replaced in the previous year as reported through a voluntary utility survey. Currently, utilities do not need to replace lead service lines if they are in compliance with the federal Lead and Copper Rule, which may change with future legislation under consideration in 2021.

Note: The data only shows actual numbers, rather than percentages, which can provide more context. To see more information, visit NJDEP Drinking WaterWatch.

State Level
Calculation: Total number of lead service lines replaced by drinking water systems in the previous year in the entire state as reported through a voluntary utility survey.

Data Source: Survey

Utility Survey Question
What is the number of complete lead service line replacements your utility has done in the previous year (2019)?

Note: You can also respond with the number to date in 2020 - if so, please specify.

Met primary drinking water standards

Metric Descriptor
At an individual system level, this metric shows whether the drinking water system has no known violations of primary drinking water standards (i.e., maximum contaminant levels (MCLs) established by the U.S. Environmental Protection Agency or the NJ Department of Environmental Protection) for the most recent complete calendar year. Note that testing frequency can vary (e.g., triennial, quarterly, etc.). Public water systems must not exceed any MCL under the federal and State Safe Drinking Water Act (SDWA). To see all contaminants with MCLs monitored in New Jersey, click here.

For the purpose of this dashboard, a “Yes” response indicates that there was no exceedance of the Maximum Contaminant Levels (MCLs) established by the US EPA and NJDEP primary drinking water standards. A “No” response indicates that the system was reported by NJDEP to have had at least one instance of an MCL exceedance.

Note: The information for this metric is updated annually using data from NJDEP, so it may not represent current conditions. Utilities may have already resolved or started to resolve issues identified. All water has minerals and inorganic compounds in it. Potable water is treated to ensure levels of contaminants meet regulatory requirements so that they do not cause harm. All systems have to do testing throughout the year to ensure they are within regulatory limits. To learn more, please read the relevant system’s Consumer Confidence Report (CCR) (found on the system page) or visit NJDEP Drinking WaterWatch for additional details that this dashboard does not provide.

State Level
Calculation: Percentage of NJ drinking water systems that have no known violations of primary drinking water standards (i.e., maximum contaminant levels (MCLs) established by the U.S. Environmental Protection Agency or the NJ Department of Environmental Protection) for the most recent calendar year.

Data Source: NJ Department of Environmental Protection (NJDEP)

Additional Information
To learn more about how public water systems are monitored, please refer to the 2019 Annual Compliance Report from NJDEP.

To What Extent Can Everyone in My Community Afford Utility Services?

Monthly residential cost/price of drinking water in 2020

Metric Descriptor
At an individual system level, this metric shows the estimated cost of drinking water services in 2020 for a household using 45,000 gallons of water per month. This metric is based on data collected for "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021).

To make tap water potable and deliver it reliably, your drinking water system's rate structure needs to ensure there is enough revenue to meet all needs. These needs include pumping, treating, distributing, operating and maintaining the system to meet all state and federal regulations. Low rates are not necessarily better than high rates, since water systems need revenues to upgrade and maintain pipes and treatment plants to keep them running as efficiently and reliably as possible, to comply with government regulations, and to meet customers' expectations. It's important to understand this when looking at individual system response and making any comparisons with other systems and/or personal utility bills. Information in this metric can help convey how the cost of tap water compares to that of bottled water, which is often more expensive and contributes to pollution. Your system should regularly update their rate schedule to reflect the true cost of providing your service.

Note: The costs listed here were current in 2020. However, some utilities have notified Jersey Water Works that a change to the rate schedule has been adopted, which will be reflected in future calculations. Additionally, please note that the reported value is an estimation, based on an annual fixed volume. Thus, a specific household's utility bill may be different, as their usage may

differ and their bill can include other fees that have not been factored into the research and analysis.

State Level
Calculation: Estimated cost of drinking water services in 2020 for a household using 45,000 gallons of water per month.

See Methodology document for more details on the calculation for these numbers.

Data Source: Research

Monthly residential cost/price of sewer services in 2020

Metric Descriptor
At an individual system level, this metric shows the estimated cost of sewer services in 2020 for a household using 45,000 gallons of water per year. For utilities that serve multiple municipalities, wherein the costs vary by municipality, the value represents a weighted average*, using population estimates from the American Community Survey (2014-2018) for the service area in each municipality. This metric is based on data collected for "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021).

Information from this metric can help convey how a system's rate structures ensure they have enough revenue to operate in a financially sound manner and meet current and future needs. Low rates are not necessarily better than high rates, since the sewer service system's rate structure needs to meet the goals of safe, dependable service to comply with government regulations, and to meet customers' expectations. It's important to understand this when looking at individual system response and making any comparisons to other systems and/or your own utility bill.

Note: The costs listed here were current in 2020. However, some utilities have notified Jersey Water Works that a change to the rate schedule has been adopted, which will be reflected in future calculations. Additionally, please note that the reported value is an estimation, based on an annual fixed volume. Thus, a specific household's utility bill may be different, as their usage may differ and their bill can include other fees that have not been factored into the research and analysis.

*The weighted average is used to obtain a single value for the purpose of this metric, but it can be skewed due to differences in how sewer rates are established by regional treatment plants and the municipalities it serves (i.e., the collection systems). The Understanding Data document [link] features tables with more detailed information regarding the regional systems. These tables

include the water and sewer rates by the system ID (PWSID and NJPDES, respectively), the municipality served, and the 45,000 gallon cost.

State Level
Calculation: Estimated average weighted cost of sewer services in 2020 for households using 45,000 gallons of water per month.

Data Source: Research

See Methodology section for more details on the calculation for these numbers.

Percentage of households in the service area that may struggle to pay water and sewer utility bills

Metric Descriptor
At an individual system level, this metric shows the percentage of households in the system's service area that may have difficulty paying water and sewer bills in the absence of subsidies. This metric is based on research from "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021) comparing 2020 water and sewer rates for both systems to the income of households at the top of the lowest quintile (20th percentile) of household incomes for each area, recognizing the cost of other typical household expenses. Information in this metric can help systems and communities to identify opportunities to provide assistance to low-income customers.

State Level
Calculation: Percentage of NJ households that may have difficulty paying water and sewer bills in the absence of subsidies.

Data Source: Research

See Methodology section for more details on the calculation for these numbers.

Offers residential drinking water/sewer service for essential demands at a special rate or with discounts

Metric Descriptor
At an individual system level, this metric shows if the (drinking water/wastewater) system offers a special rate for low-volume residential customers and/or discounts for low-income seniors and

customers with disabilities in order to improve household affordability. Data is self-reported via utility survey.

Note: Municipal Utility Authorities have explicit authority to offer discounts for low-income seniors and customers with disabilities. However, their authority to offer low-income discounts more generally is ambiguous. A yes/no response should be read with these legal limitations in mind. See the financial assistance metric which describes other forms of customer assistance.

State Level
Calculation: Percentage of (drinking water/wastewater) utilities that offer a special rate or discounts for low-volume residential customers and/or discounts for low-income seniors and customers with disabilities in order to improve household affordability.

Data Source: Survey

Utility Survey Question
Does your (drinking water/wastewater) utility offer a special rate for low-volume residential users or discounts for low-income seniors and customers with disabilities as a method to improve household affordability?

Has residential customer assistance programs to address short-term water or wastewater affordability

Metric Descriptor
This metric is outside of government requirements.

At an individual system level, this metric shows if the drinking water or sewer system offers any type of financial assistance to help customers pay their bills. This can include payment plans, bill forgiveness, referral to social services, water conservation program subsidies, etc. Data for this is self-reported through a utility survey.

State Level
Calculation: Percentage of utilities that offer any type of financial assistance to help customers pay their bills.

Data Source: Survey

Utility Survey Question
Does your utility offer financial assistance programs for your customers? Select all that apply.

- We do not have any customer assistance programs.

- Payment plans. A negotiated payment plan that allows customers to become current after the normal due date.
- Penalty forgiveness. The forgiveness of penalty or other fee(s) to allow a customer to become current.
- Crisis assistance program. A temporary assistance given to customers who experience an unexpected challenge to paying their utility bill.
- Arrearage forgiveness. The forgiveness of past billed amounts to allow a customer to become current.
- Lifeline rates. This is a low-cost rate applied to a small first block (or tier) of water consumption. Lifeline rates are available to all customers within the same customer class.
- Low-income rates. These are special rates that apply only to customers that meet certain income qualification standards (implemented in the past year)
- Low-income rates. These are special rates that apply only to customers that meet certain income qualification standards (implemented in the last 1 to 5 years)
- Low-income rates. These are special rates that apply only to customers that meet certain income qualification standards (in place for more than 5 years)
- Low-income discounts. For water bills based on a utility's standard rates, these are discounts applied to qualifying customers' bills.
- Payment leveling
- Leak adjustments or forgiveness
- Water conservation or plumbing assistance
- Other (Please specify)

Utilities that chose any option other than "We do not have any customer assistance programs" were marked as a "Yes" for this metric.

How Does My System Protect the Environment?

Met NJ effluent discharge quality requirements

Metric Descriptor

At an individual system level, this metric shows whether the wastewater (sewer) system has met New Jersey Pollution Discharge Elimination system permit limits for effluent quality from 2017-2019. Effluent is an outflow discharged from the wastewater (sewage) treatment plant. Discharge from a sewer treatment plant has been through a process that removes harmful bacteria and other pollutants. Discharge from each sewer treatment plant is regulated via a New Jersey Pollution Discharge Elimination System (NJPDES) permit. If the plant is meeting its permit requirements (which are highly individual to the plant), the treated water is considered sufficiently

treated for release into the river, stream, bay, or ocean where the outfall (discharge) pipe emerges.

Note: The information for this metric is updated annually using data from NJDEP, so it may not represent current conditions. Utilities may have already resolved or started to resolve issues identified.

State Level
Calculation: Percentage of wastewater (sewer) system that complied with New Jersey Pollution Discharge Elimination System (NJPDES) permit limits for effluent quality from 2017-2019.

Data Source: NJDEP

Percentage of energy used that comes from a renewable source

Metric Descriptor
This metric is outside of government requirements.

At an individual system level, this metric shows the percentage of energy obtained from renewable energy sources. Renewable energy is defined here as energy from a source that is not depleted when used, such as wind or solar power (onsite or offsite) or biogas from utility operations. This metric helps convey a utility's commitment to sustainability and environmental protection. In some cases, renewable energy may have other advantages, including providing power during power outages and lowering costs. New Jersey's Clean Energy Plan encourages use of renewable energy and reduction of energy demands.

State Level
Calculation: Average percentage of energy obtained from renewable energy sources for utilities by utility size.

Data Source: Survey

Utility Survey Question
What percentage of the energy used by your utility comes from renewable energy sources?

Note: Renewable energy is defined here as energy from a source that is not depleted when used, such as wind or solar power (onsite or offsite) or biogas from utility operations. This metric is outside of government requirements.

Green Infrastructure Metrics - Municipalities Only

Completed Sustainable Jersey's Green Infrastructure Planning Action

Metric Descriptor
At an individual system level, this metric shows whether a municipality has implemented the Sustainable Jersey action for Green Infrastructure Planning, which helps municipalities to make a plan to use green infrastructure best management practices to manage stormwater. Sustainable Jersey's Green Infrastructure Planning Action includes conducting an impervious cover assessment and identifying immediate plus short term GI projects to manage stormwater runoff from impervious surface. (It does not indicate certification by Sustainable Jersey.)

State Level
The number of NJ municipalities that have implemented the Sustainable Jersey action for Green Infrastructure Planning, which helps municipalities to make a plan to use green infrastructure best management practices to manage stormwater.

Data Source: Research

Additional Information
This information can be found on this page on Sustainable Jersey's website (Filter by Certified Action > Land Use & Transportation > select Green Infrastructure Planning > click "Filter" button")
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Has completed an impervious cover assessment

Metric Descriptor
At an individual system level, this metric shows if the municipality has completed an impervious cover assessment. An impervious cover assessment measures the acreage of impervious area in the municipality that generates stormwater runoff. Impervious area is land that stops water from infiltrating into the ground, including surfaces made of asphalt, concrete, brick, or stone as well as building roofs. During small and large rainfall events, areas with more impervious surfaces experience more runoff. By completing impervious cover assessments, municipalities can understand which areas experience excessive runoff and are therefore in need of green infrastructure.

State Level
Calculation: Number of NJ municipalities that have completed an impervious cover assessment.

Data Source: Survey

Municipal Survey Question
Has your municipality completed an impervious cover assessment?

Note: An impervious cover assessment measures the acreage of impervious area in the municipality that generates stormwater runoff. Impervious area is land that stops water from infiltrating into the ground, including surfaces made of asphalt, concrete, brick, or stone as well as building roofs. During small and large rainfall events, areas with more impervious surfaces experience more runoff. By completing impervious cover assessments, municipalities can understand which areas experience excessive runoff and are therefore in need of green infrastructure.

Has completed a green infrastructure feasibility study

Metric Descriptor
At an individual system level, this metric shows if municipalities have studied how to implement green infrastructure for stormwater management by doing a complete green infrastructure feasibility study. These studies assess a municipality's stormwater management needs, highlight potential sites for green infrastructure, and recommend implementation steps.

State Level
Calculation: Number of NJ municipalities that have studied how to implement green infrastructure for stormwater management by doing a complete green infrastructure feasibility study.

Data Source: Survey

Municipal Survey Question
Has your municipality completed a green infrastructure feasibility study?

Note: Green infrastructure feasibility studies show how you can implement green infrastructure for stormwater management. They primarily assess the municipality's stormwater management needs, highlight potential sites for green infrastructure, and recommend implementation steps.

Acres of land that are currently managed with green infrastructure

Metric Descriptor
At an individual system level, this metric indicates how many acres of land the municipality currently uses to manage stormwater with green infrastructure.

State Level
Calculation: Total number of acres of land municipalities in New Jersey currently uses to manage stormwater with green infrastructure.

Data Source: Survey

Municipal Survey Question
How many acres of public land does your municipality currently use green infrastructure on to manage stormwater?

Acres of land the municipality plans to use green infrastructure on for stormwater management

Metric Descriptor
At an individual system level, this metric indicates acres of land on which the municipality plans to use green infrastructure for stormwater management, according to the goal in the Master Plan. It is a best practice for towns to include green infrastructure in their master plans. Green infrastructure manages stormwater runoff in a way that reduces flood risk, improves water quality, and increases groundwater recharge. Having a target is a good first step for municipalities to make green infrastructure their go-to solution.

State Level
Calculation: Total number of acres of land on which municipalities plan to use green infrastructure to manage stormwater, according to the Master Plan.

Data Source: Survey

Municipal Survey Question
How many acres of public land has your municipality targeted to use green infrastructure on to manage stormwater?

Municipal Stormwater Control Ordinance calls for green infrastructure in new development

Metric Descriptor
At an individual system level, this metric shows if the municipality's Municipal Stormwater Control Ordinance includes green infrastructure for new development. Completing this by March 2021 would fulfill the requirements of the updated Stormwater Rules, NJAC 7:8.

State Level
Calculation: Percentage of municipalities with Municipal Stormwater Control Ordinances that call for green infrastructure for new development.

Data Source: Survey

Municipal Survey Question
Does your Municipal Stormwater Control Ordinance require green infrastructure for new development?

Note: Completing this by March 2021 would fulfill the requirements of the updated NJDEP Stormwater Rules (NJAC 7:8).

Municipal Stormwater Control Ordinance calls for green infrastructure in redevelopment

Metric Descriptor
At an individual system level, this metric shows if the municipality's Municipal Stormwater Control Ordinance applies the requirements of the ordinance to redevelopment. This action goes above and beyond the requirements of NJDEP's Stormwater Management Rules (NJAC 7:8).

State Level
Calculation: Percentage of municipalities with Municipal Stormwater Control Ordinances that call for green infrastructure for redevelopment.

Data Source: Survey

Municipal Survey Question
Does your Municipal Stormwater Control Ordinance require green infrastructure for redevelopment?

Note: This action goes above and beyond the requirements of the updated NJDEP Stormwater Management Rules (NJAC 7:8).

Municipal Master Plan specifies a goal for green infrastructure

Metric Descriptor
At an individual system level, this metric shows if the municipality's Master Plan specifies a goal for the acres of land on which green infrastructure will be used to manage stormwater. It is a best

practice for towns to include green infrastructure in their master plans. Green infrastructure manages stormwater runoff in a way that reduces flood risk, improves water quality, and increases groundwater recharge. Having a target is a good first step for municipalities to make green infrastructure their go-to solution.

State Level
Calculation: Percentage of municipalities that specify a goal for the acres of land for which stormwater will be managed using green infrastructure in their master plans.

Data Source: Survey

Municipal Survey Question
Does your municipality specify a goal for green infrastructure in its Master Plan?

Combined Sewer Overflow Metrics - CSO Permittees Only

Note: More information about the CSO permits and the plans for all 24 permittees that submitted Long Term Control Plans (LTCPs) in October 2020 can be found here.

Annual amount of stormwater and sewage discharged by the permittee's combined sewer outfalls (CSOs)

Metric Descriptor
At an individual system level, this metric shows the annual amount of combined sewer overflows (million gallons) for the permittee in a typical year under existing conditions, as reported in the permittee's Long Term Control Plan (LTCP).

Note: The values listed for Camden County Municipal Utilities Authority, Camden, and Gloucester represent the regional value, as the LTCP does not report values by permittee.

State Level
Calculation: Annual amount of combined sewer overflows (million gallons) from all of New Jersey's CSO permittees in a typical year under existing conditions, as reported in the Long Term Control Plans (LTCPs).

Data Source: Research - CSO Long Term Control Plans

Percentage of CSO volume reduction expected with the implementation of the Long Term Control Plan (LTCP)

Metric Descriptor
At an individual system level, this metric shows the expected reduction in volume (million gallons) of annual combined sewer overflows (CSOs) for the permittee based on the proposed Long Term Control Plan (LTCP). This percentage is calculated based on two values reported in the LTCP: A) the baseline annual volume of CSOs and B) the anticipated annual volume of CSOs after LTCP implementation. The equation used is: 1 - (B/A). Given that all permittees will meet the minimum requirement of the CSO permit, which is 85% capture* (a separate calculation that factors in the wet weather flow volume at the treatment plant), this metric gives a sense of how far away the permittee is from achieving 85% capture.

Note: The values listed for Camden County Municipal Utilities Authority, Camden, and Gloucester represent the regional value, as the LTCP does not report values by permittee.

*The "Presumption Approach" in US EPA's CSO policy requires "...the capture for treatment of no less than 85 percent by volume of the combined sewage collected in the combined sewer system during precipitation events on a system-wide annual average basis."

State Level
Calculation: Expected reduction in volume (million gallons) of annual combined sewer overflows (CSOs) across all 24 permittees based on the proposed Long Term Control Plans (LTCPs).

Data Source: Research - CSO Long Term Control Plans

Number of annual CSO events

Metric Descriptor
At an individual system level, this metric shows the number of times that the permittee's combined sewer system discharges a combination of sewage and stormwater into local water bodies on an annual basis. For cases like the North Hudson Sewerage Authority (NHSA), which reports its combined sewer overflow (CSO) events by outfall, this metric reports the highest value, rather than the sum, of the events. This is because "events" refer to days of overflows, which can represent overflows across multiple outfalls, rather than instances of overflows at individual outfalls. Thus, to add up these numbers would not be accurate, as there may be overlap among the days of overflows reported for the various outfalls (e.g., With 60 events for outfall 1 and 70 events for outfall 2, perhaps 50 of these happen on the same day).

Note: The values listed for Camden County Municipal Utilities Authority, Camden, and Gloucester represent the regional value, as the LTCP does not report values by permittee.

State Level
Calculation: Average number of times that New Jersey's CSO permittees with combined sewer outfalls discharge a combination of sewage and stormwater into local water bodies on an annual basis.

Data Source: Research - CSO Long Term Control Plans

Number of CSO outfalls

Metric Descriptor
At an individual system level, this metric shows the CSO permittee's number of combined sewer outfalls.

State Level
Calculation: Total number of combined sewer outfalls across New Jersey.

*This value does not include Trenton's single outfall, as Trenton submitted its LTCP in 2018 before all other permit holders.

Data Source: Research - CSO Long Term Control Plans

CSO permittee plans to use green infrastructure (GI) in the Long Term Control Plan (LTCP)

Metric Descriptor
At an individual system level, this metric shows if the permittee plans to use green infrastructure in the Long Term Control Plan (LTCP). GI practices include, but are not limited to, pervious paving, bioretention basins, vegetated swales, and cisterns.

State Level
Calculation: Number of permittees that plan to use green infrastructure in the Long Term Control Plans (LTCPs).

Data Source: Research - CSO Long Term Control Plans

Annual amount of stormwater planned to be managed with green infrastructure by the CSO permittee

Metric Descriptor
At an individual system level, this metric shows the annual amount of stormwater (million gallons) that is planned to be managed using green infrastructure (GI) practices, as reported in the permittee's Long Term Control Plan (LTCP). GI practices include, but are not limited to, pervious paving, bioretention basins, vegetated swales, and cisterns.

Note: The values listed for Camden County Municipal Utilities Authority, Camden, and Gloucester represent the regional value, as the LTCP does not report values by permittee.

*Very few permittees reported this value in their LTCPs.

State Level
Calculation: Annual amount of stormwater (million gallons) planned to be managed with green infrastructure (GI) across all LTCPs.

Data Source: Research - CSO Long Term Control Plans

CSO permittee calls for customer assistance or rate affordability in the Long Term Control Plan (LTCP)

Metric Descriptor
At an individual system level, this metric shows whether the permittee calls for customer assistance or rate affordability in the financial capabilities section of the LTCP.

State Level
Calculation: Number of permittees that call for customer assistance or rate affordability in the financial capabilities section of the LTCP.

Data Source: Research - CSO Long Term Control Plans

Minimum number of years required for completion of the CSO permittee's Long Term Control Plan (LTCP)

Metric Descriptor

At an individual systems level, this metric shows the minimum number of years required to complete all of the projects reported in the permittee's LTCP. It is important to note that most plans give a range of years.

State Level
Calculation: Average minimum number of years required for the completion of all the LTCPs.

Data Source: Research - CSO Long Term Control Plans

CSO permittee considered climate change impacts in its Long Term Control Plan (LTCP)

Metric Descriptor
At an individual system level, this metric shows whether the permittee considered the effects of climate change impacts, particularly sea level rise and/or increased precipitation intensity, in the LTCP.

State Level
Calculation: Number of permittees that considered the effects of climate change impacts, particularly sea level rise and/or increased precipitation intensity, in their LTCPs.

Data Source: Research - CSO Long Term Control Plans

CSO permittee described some comments from the public in its Long Term Control Plan (LTCP)

Metric Descriptor
At an individual system level, this metric shows whether the CSO Long Term Control Plan described at least one comment from the public that was received at public participation events such as Supplemental CSO Team meetings.

State Level
Calculation: Number of permittees that described at least one comment from the public that was received at public participation events such as Supplemental CSO Team meetings.

Data Source: Research - CSO Long Term Control Plans

The Long Term Control Plan (LTCP) is readily available on the CSO permittee's website

Metric Descriptor
At an individual system level, this metric shows whether the permittee has made the LTCP available on its website in an easily-identifiable location.

State Level
Calculation: Number of CSO Long Term Control Plans posted clearly on the respective permittees' websites.

Data Source: Research - CSO Long Term Control Plans

How Customer-Friendly is My System?

Regularly surveys their customers for service satisfaction

Metric Descriptor
This metric is outside of government requirements.

At an individual system level, this metric shows whether a utility conducts a regular customer satisfaction survey to get feedback on their service. The term "customer "is used very broadly here to denote someone who receives their water or sewer service from their utility. Data for this metric was based on a self-reported survey. Note that there are many mechanisms utilities have that provide opportunities to individuals to give feedback and input (public meetings, correspondence, etc.).

State Level
Calculation: Percentage of utility systems (drinking water and wastewater) that conduct regular customer satisfaction surveys to get feedback on their service.

Data Source: Survey

Utility Survey Question
Does your utility conduct a regular (i.e., annual) customer satisfaction survey to seek feedback on service?

Note: There are many mechanisms utilities have that provide opportunities to individuals to give feedback and input (public meetings, correspondence etc). This measure is going above and

beyond any government requirements. The term "customer "is used very broadly here to denote someone who receives their water or sewer service from your utility.

Additional Information

Customer satisfaction surveys are mostly a private-sector tool a best practice. Government utilities are units of local government. Voters (constituents/ratepayers) have mechanisms in their status as members of the public that provide them with opportunities to provide feedback and input.

- Public meetings
- Local access: offices are not far and managers more accessible.
- Elections: municipal systems that are run by municipalities have governing bodies that directly control the budgets and hiring etc. Authority officials are appointees of municipal government.
- OPRA – Members of the public have wide latitude to request information
- Web posting and Open Public Records Act provisions

Corporate utilities no doubt have obligations about information they must post and they may have requirements to survey customer satisfaction. They are required to post tariffs.

Has an online presence and makes contact information available online

Metric Descriptor

At an individual system level, this metric shows whether the utility has an online presence and makes contact information available online. An "online presence" is defined here as including a dedicated webpage/website or social media sites such as Facebook and Nextdoor. In this case, contact information refers to a phone number, email address and/or contact portal. This metric helps convey how easy it is to find critical information about the utility.

Note: Utilities may be either governed by regulatory obligations and/or guided by professional best practices to make their information accessible. For the purpose of this dashboard, this metric only shows a simple yes/no response without going into these details.

State Level

Calculation: Percentage of utilities that have an online presence and make contact information available online.

Data Source: Research

Lists their governing body's members online

Metric Descriptor
At an individual system level, this metric shows utilities that list their governing body members on their website. The governing body may be a board, commission, municipal administrator/manager or mayor for a government-owned utility; or an executive management team for an investor-owned utility. This metric helps show how easy it is to know or contact utility leadership, which can help empower community stakeholders.

Note: Utilities may be either governed by regulatory obligations and/or guided by professional best practices to make their information accessible. For the purpose of this dashboard, this metric only shows a simple yes/no response without going into these details.

State Level
Calculation: Percentage of utility systems (drinking water and wastewater) that list their governing body members on their website.

Data Source: Research

Posts utility rates online

Metric Descriptor
At an individual system level, this metric shows whether a system posts its utility rates for residential and commercial customers online. Data was collected as part of "A New Jersey Affordability Methodology and Assessment for Water and Sewer Utility Costs" (Van Abs, 2021).

Note: Utilities may be either governed by regulatory obligations and/or guided by professional best practices to make their information accessible. For the purpose of this dashboard, this metric only shows a simple yes/no response without going into these details.

State Level
Calculation: The percentage of NJ utilities (drinking water and wastewater systems) that post their utility rates for residential and commercial customers online.

Data Source: Research

Number of clicks to reach consumer confidence report on website

Metric Descriptor
This metric is outside of government requirements.

At an individual system level, this metric shows how many clicks it takes to access the Consumer Confidence Report from the home page on the utility website. The Consumer Confidence Report is an annual drinking water quality report required by the federal government, which must be provided to all utility customers. Fewer number of clicks indicates easier accessibility.

Note: To specify, the final click is the one that opens (or otherwise downloads) the document.

State Level
Calculation: Average number of clicks it takes to access the Consumer Confidence Report on the utility website for all drinking water utilities in NJ.

Data Source: Research

Number of clicks to reach financial information on website

Metric Descriptor
This metric is outside of government requirements.

At an individual system level, this metric shows how many clicks it takes to access a utility's financial information in the form of a document on its website. "Financial information" is defined here as an annual budget and/or annual audit report. Fewer clicks indicates easier accessibility.

Note: To specify, the final click is the one that opens (or otherwise downloads) the document.

State Level
Calculation: Average number of clicks it takes to access financial information in the form of a document for all utilities (drinking water and wastewater) in NJ.

Data Source: Research

State Level Only

Amount of money received from the federal government that is used to provide project funding support for NJ drinking water utilities, by year

Metric Descriptor
This metric shows how much funding the state of New Jersey received from the federal Safe Drinking Water Act State Revolving Fund (DWSRF) and US Department of Agriculture. DWSRF funds are primarily used through the New Jersey Water Bank for low interest loans to public community water systems (both government-owned and privately-owned) and non-profit public noncommunity water systems to finance capital projects that upgrade, rehabilitate, or replace components of drinking water systems. Some small systems (i.e., serving municipalities with less than 10,000 people) are eligible for and receive funding through the U.S. Department of Agriculture instead of the NJ Water Bank.

Note: Not all capital projects are eligible for federal/State funds, and not all eligible projects request funds or are funded if they apply, depending on fund availability. Systems can also finance capital projects using cash flow, special fees, or market-rate bonds.

Data Source: NJ Department of Education (NJDEP) and US Department of Agriculture (USDA)

Amount of money received from the federal government that is used to provide project funding support for NJ wastewater utilities, by year

Metric Descriptor
This metric shows how much funding the state of New Jersey received from the federal Clean Water Act State Revolving Fund (CWSRF) and US Department of Agriculture. CWSRF funds are primarily used through the New Jersey Water Bank for low interest loans to public community water systems (both government-owned and privately-owned) and non-profit public noncommunity water systems to finance capital projects that upgrade, rehabilitate, or replace components of wastewater and stormwater systems. These loans can also be used to reduce nonpoint source pollution. Some small systems (i.e., serving municipalities with less than 10,000 people) are eligible for and receive funding through the U.S. Department of Agriculture instead of the NJ Water Bank.

Note: Not all capital projects are eligible for federal/State funds, and not all eligible projects request funds or are funded if they apply, depending on fund availability. Systems can also finance capital projects using cash flow, special fees, or market-rate bonds.

Data Source: NJ Department of Education (NJDEP) and US Department of Agriculture (USDA)

Number of full-time equivalent staff positions at the NJ Department of Environmental Protection that are dedicated to water issues

Metric Descriptor
This metric shows the number of full-time equivalent staff in the NJDEP Divisions of Water Supply, Water Quality and Water Monitoring, including successor operations. "Full-time equivalent" refers to the ratio of total number of paid hours during full time divided by number of working hours in the full time period (usually Monday-Friday). This metric provides insight into the state's staff capacity to implement and enforce regulations on water and wastewater infrastructure. (Note that some NJDEP employees in other divisions have water resources functions, such as for cleanup of hazardous waste sites, but are not responsible for water utility or water resources management functions. Information technology also affects capacity.)

Data Source: NJ Department of Education (NJDEP)

Percentage of New Jerseyans that support additional investment in water infrastructure

Metric Descriptor
Investing more in infrastructure maintenance, rehabilitation, and replacement costs requires public support. This metric assesses the extent to which that support exists in NJ, based on statewide surveys conducted in 2017 and 2020.

Data Source: Survey
(New Jersey Opinions on the State of Our Water Systems, the Environment and Infrastructure, 2017) and (An Update to New Jersey Opinions on the State of Our Water Systems, the Environment and Infrastructure, 2021)

Number of bioretention/rain garden projects designed and constructed by the Water Resources Program at Rutgers University Cooperative Extension

Metric Descriptor
This metric counts the total number of bioretention/rain garden projects completed in New Jersey that have been designed and constructed by the Water Resources Program at Rutgers

University Cooperative Extension. The number was obtained from the National Low Impact Development (LID) Atlas, which is an online resource providing geo-referenced examples of innovative stormwater practices across the country. Rain gardens are just one of a variety of green infrastructure projects that slow the flow of stormwater in order to improve water quality, increase infiltration, and/or reduce flood risk.

Data Source: Research