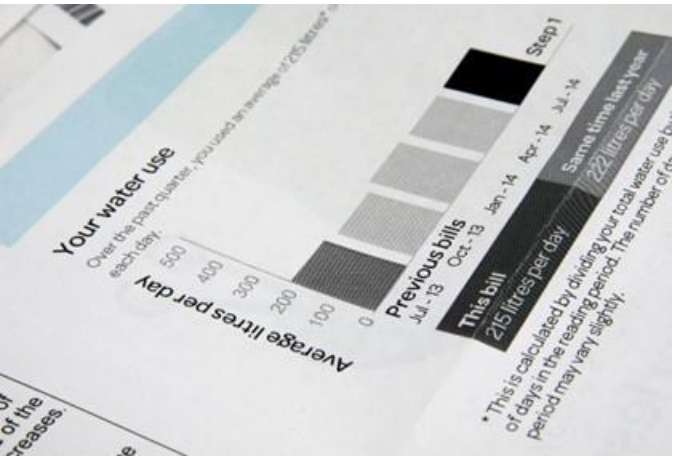
WaterSense at Work

Water Use Monitoring

2.3 Benchmarking



Best Management Practices for Commercial and Institutional Facilities

EPA WaterSense

March 2024

WaterSense® is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA) that seeks to protect the nation's water supply by transforming the market for water-efficient products, services, and practices.

WaterSense at Work is a compilation of water efficiency best management practices intended to help commercial and institutional facility owners and managers from multiple sectors understand and better manage their water use. It provides guidance to help establish an effective facility water management program and identify projects and practices that can reduce facility water use.

An overview of the sections in *WaterSense at Work* is below. This document, covering benchmarking, is part of **Section 2: Water Use Monitoring**. The complete list of best management practices is available at www.epa.gov/watersense/best-management-practices. WaterSense has also developed worksheets to assist with water management planning and case studies that highlight successful water efficiency efforts of building owners and facility managers throughout the country, available at www.epa.gov/watersense/commercial-buildings.

- **Section 1. Getting Started With Water Management**
- **Section 2. Water Use Monitoring**
- **Section 3. Sanitary Fixtures and Equipment**
- **Section 4. Commercial Kitchen Equipment**
- **Section 5. Outdoor Water Use**
- **Section 6. Mechanical Systems**
- **Section 7. Laboratory and Medical Equipment**
- **Section 8. Onsite Alternative Water Sources**

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This document is one section from *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities* (EPA-832-F-23-003). Other sections can be downloaded from www.epa.gov/watersense/best-management-practices. Sections will be reviewed and periodically updated to reflect new information. The work was supported under contract 68HERC20D0026 with Eastern Research Group, Inc. (ERG).

Overview

Benchmarking water use in commercial and institutional facilities is a valuable water management tool that can generate useful information for facility owners and operators. While the term "benchmarking" can be defined in different ways, the U.S. Environmental Protection Agency (EPA) and its ENERGY STAR® program define it as the process of measuring a building's water use and comparing it to its own historical usage, the water use of similar facilities, or a reference performance level.[1,2] By this definition, benchmarking may include the simple measurement and self-comparison of a facility's water consumption over time (e.g., gallons per year). However, benchmarking can be made more powerful by normalizing a facility's water use, thus allowing for comparisons across similar facilities of the same type or function. Normalization can use a meaningful functional denominator (e.g., gallons per gross square foot per year), or involve a multifactor model. The 1-to-100 ENERGY STAR Score (for energy) and the EPA Water Score, described at right and below, are examples of multifactor ratings that can be generated by inputting facility information and utility usage data into ENERGY STAR Portfolio Manager® at www.energystar.gov/buildings/benchmark.

Resources for Multifamily Property Water Use Benchmarking

Property managers interested in benchmarking multifamily building water consumption should use the EPA Water Score. The EPA Water Score is a 1-to-100 rating, generated by entering building and water consumption data into ENERGY STAR Portfolio Manager, that helps compare multifamily building water use to similar properties nationwide. Information about the EPA Water Score, along with additional technical resources intended to help multifamily property owners conduct a property water assessment and identify opportunities to improve their Water Score by reducing water use, can be found at www.epa.gov/watersense/water-score-multifamily-housing.

Benchmarking requires the choice of both metrics and benchmarks. A metric (sometimes referred to as a performance indicator) is a unit of measure that can be used to assess the rate of water use.[3] Examples include water use per year, water use per capita per day, and

[1] U.S. Environmental Protection Agency (EPA). Energy Resources for State and Local Governments. Benchmarking and Building Performance Standards Policy Toolkit. www.epa.gov/statelocalenergy/benchmarking-and-building-performance-standards-policy-toolkit.
[2] ENERGY STAR Portfolio Manager. February 2021. *Benchmarking and Building Performance Standards Policy Toolkit. Section 1: Building Energy Benchmarking and Transparency: Overview for State and Local Decision Makers*. www.epa.gov/sites/default/files/2021-02/documents/benchmarking_building_performance_standards_section1.pdf.
[3] A&N Technical Services, Inc. March 1, 2013. *Analysis of Water Use Efficiency Metrics and Benchmarking*. Prepared for Mesa Water District. www.usbr.gov/lc/socal/reports/MesaWDBenchmarks.pdf.

water use per gross square foot per year. A benchmark is a particular numerical value of a metric that allows for the comparison of a facility to itself or to other buildings of similar function and operating characteristics.[4] As an example of a metric, a facility can collect its water use per year or water use per occupant per year. Collection and comparison of that water use metric over multiple years would constitute benchmarking.

There are many advantages to benchmarking commercial and institutional buildings for water use. Determining how a facility is performing compared to similar facilities can help facility managers prioritize which facilities or building systems to upgrade or justify increased attention on water efficiency goals. In addition, by characterizing how facilities use water and incorporating efficiency improvements, it is possible to offset rising water and sewer costs, improve resilience to water shortages, and potentially save energy (and associated energy costs).

How to Benchmark Your Facility

The following sections detail the basic steps to benchmark your facility or portfolio of facilities.

Track Water Use and Prepare for Benchmarking

If you are not already doing so, you should be collecting, reviewing, and recording bills for all water and wastewater sources onsite. A minimum of one year will help identify and understand seasonal trends, but three or more years is preferable. These records should include utility bills, as well as any self-supplied or alternative water sources (e.g., reclaimed water, water from on-property wells, harvested rainwater, onsite recycled water).

If utility bills are not readily available, facility managers can contact their utility to request copies of previous bills or install and monitor their own building-level water meters or other water monitoring devices in preparation for benchmarking. Submetering large subsystems may also be beneficial. Advanced metering systems may include analysis software or portals to monitor facility water use and possibly allow for comparison with other customers. Refer to *WaterSense at Work Section 2.2: Metering and Submetering* at www.epa.gov/watersense/best-management-practices for additional guidance.

Proper characterization of the facility to identify operating characteristics and factors that can influence water use is essential, because it limits comparisons to other properties with similar operating characteristics. Examples of facility information that may be important to understand include:

[4] *Ibid.*

- Building identifying information: This includes the location, year of construction, and year of major renovation (if applicable).
- Building areas, dimensions, and facility type: Water use characteristics can vary significantly based on the facility's principal use. Some examples of commercial and institutional building types include education, foodservice, healthcare, lodging, manufacturing, office, public assembly, retail, service, and warehouse. A single property may contain multiple facility types.
- Unique features that may impact water use: Some water-intensive operations include commercial kitchens, foodservice, medical facilities, laundry operations, cooling towers, irrigation systems, pools, and spas.
- Irrigated area: When irrigation is used, large landscapes tend to use more water than small ones.
- Number of operational days: Not all facilities are in use 365 days per year. For public schools, most U.S. states require 180 instructional days per year but might require additional professional days for faculty and staff. Commercial and office buildings might be in use between 250 and 260 days per year, accounting for weekends and the number of holidays recognized.
- Number of occupants: Accounting for the number of building occupants can sometimes prove complex. For certain facility types that employ people hourly, such as office buildings and retail, it is helpful to calculate the number of full-time equivalent (FTE) employees. While definitions vary, FTE can be calculated by dividing an employee's scheduled hours by the employer's hours for a full-time work week. Other examples include calculating the number of full-time students enrolled at a school, the number of patients served by a hospital, or the number of visitors/customers seen on an average day.

Refer to *WaterSense at Work Section 1.2 Water Management Planning* at www.epa.gov/watersense/best-management-practices for more information on tracking water use.

Select Appropriate Metrics

The choice of appropriate metrics is critical—particularly when comparing across facilities with similar operations—and varies depending on the facility type. The most widely reported metric is gallons of water used per square foot per year. ENERGY STAR Portfolio Manager refers to this as water use intensity (WUI). However, floor area may not be the best metric to understand water use. People, equipment, operations, and landscape area are all primary drivers of water use. While WUI serves as a common metric across most facility types in water benchmarking, metrics specific to the property that reflect the activity of the facility rather than its size are often preferable. Metrics could be:

- Functional metrics: These metrics are based on the intended purpose of the facility (e.g., water use per guest-night, water use per meal served, water use per pound of laundry).
- People metrics: These metrics are based on the number of people that interact with the facility (e.g., water use per employee, water use per customer, water use per student).
- Facility metrics: These metrics are based on the physical characteristics of the facility (e.g., water use per square foot, water use per seat, water use per dwelling unit).

The best choice of metric varies depending on the purpose of the facility. In addition, data availability and data consistency are important considerations in selecting metrics. If it is not possible to track the ideal metric due to data limitations, proxy metrics can be substituted. Some examples of appropriate metrics for various facility types are included in Table 1 on the next page.

The same water use data normalized by different functional denominators can often tell different stories. If the facility is looking to compare a metric with other facilities within your portfolio or elsewhere, try to match benchmarking metrics to ones commonly used in the industry so that direct comparisons can be made. Developing metrics and benchmarks based on several different denominators may be beneficial (e.g., gallons per day per occupied room AND gallons per day per total rooms). It is good practice to carefully describe how your denominators were derived so that others can adjust their data accordingly to develop meaningful comparisons.

Once you have selected your metric(s), do not just maintain records of water use over time, but track additional information needed to support each functional, people, and/or building metric. For example, building occupancy or number of employees may vary over time, so it is important to obtain and track this information regularly.

Table 1. Examples of Metrics for Various Facility Types[5]

Facility Type	Facility Purpose	Appropriate Metric(s)	Proxy Metric(s)
Data Centers	Store and support data servers	• Water use effectiveness	
Education	Educate students	• Water use per student	• Water use per square foot • Water use per employee
Foodservice	Produce meals for people	• Water use per meal • Water use per customer	• Water use per seat • Water use per square foot • Water use per employee
Healthcare	Assist and care for people	• Water use per patient	• Water use per bed • Water use per employee
Lodging	Provide rooming accommodations for people	• Water use per visitor • Water use per room	• Water use per square foot • Water use per employee
Retirement Homes	Provide rooming accommodations for people	• Water use per resident • Water use per bed	• Water use per square foot • Water use per employee
Manufacturing	Produce raw materials and products	• Water use per physical unit produced	• Water use per square foot • Water use per employee
Offices	Provide space for people for desk work	• Water use per employee	• Water use per square foot
Public Assembly	Provide meeting space for people	• Water use per visitor • Water use per square foot	• Water use per employee
Retail	Sell products	• Water use per customer • Water use per transaction	• Water use per square foot • Water use per employee
Service	Provide services (e.g., repair cars)	• Water use per service provided (e.g., water use per car repaired)	• Water use per square foot • Water use per employee
Warehouses	Provide storage space	• Water use per square foot	• Water use per employee

[5] Water Research Foundation. 2015. *Methodology for Evaluating Water Use in Commercial, Institutional, and Industrial Sectors*. Table 6.1.

Identify Benchmarks and Track Performance

Once appropriate metrics have been chosen, benchmarks must be established or identified as the basis for comparison of building performance. The simplest benchmark is self-referential, where a facility is comparing a current water use metric to a historical baseline. Refer to *WaterSense at Work Section 1.2 Water Management Planning* at www.epa.gov/watersense/best-management-practices for more information on establishing a water baseline.

Where data is available, it can also be beneficial to compare water use metrics to the performance of other facilities. Organizations responsible for numerous facilities can compare water use metrics across their portfolios. For example, a hotel chain may be able to compare water use per occupied room across its portfolio of hotels in a region. Facility owners may also be able to identify external benchmarks to use to compare their water use metrics. While the availability of water use benchmarks is generally limited for commercial and institutional buildings, facility managers should consider contacting their water utility or a local green building or sustainable business organization to determine if benchmarks are available.

How Water Utilities and Local Governments Can Gather Data to Support Benchmarking

Facility managers are often interested in benchmarking their own facilities or facilities within their portfolio, but other groups may be interested in benchmarking as well. Benchmarking can be a helpful tool for utilities and local governments that are interested in working with commercial and institutional buildings to better understand their water consumption and reduce demands on local water supplies. Those looking to developing local or regional benchmarks may need to identify accurate facility characteristics and demographic data. This information may be available through different government or institutional organizations, including:

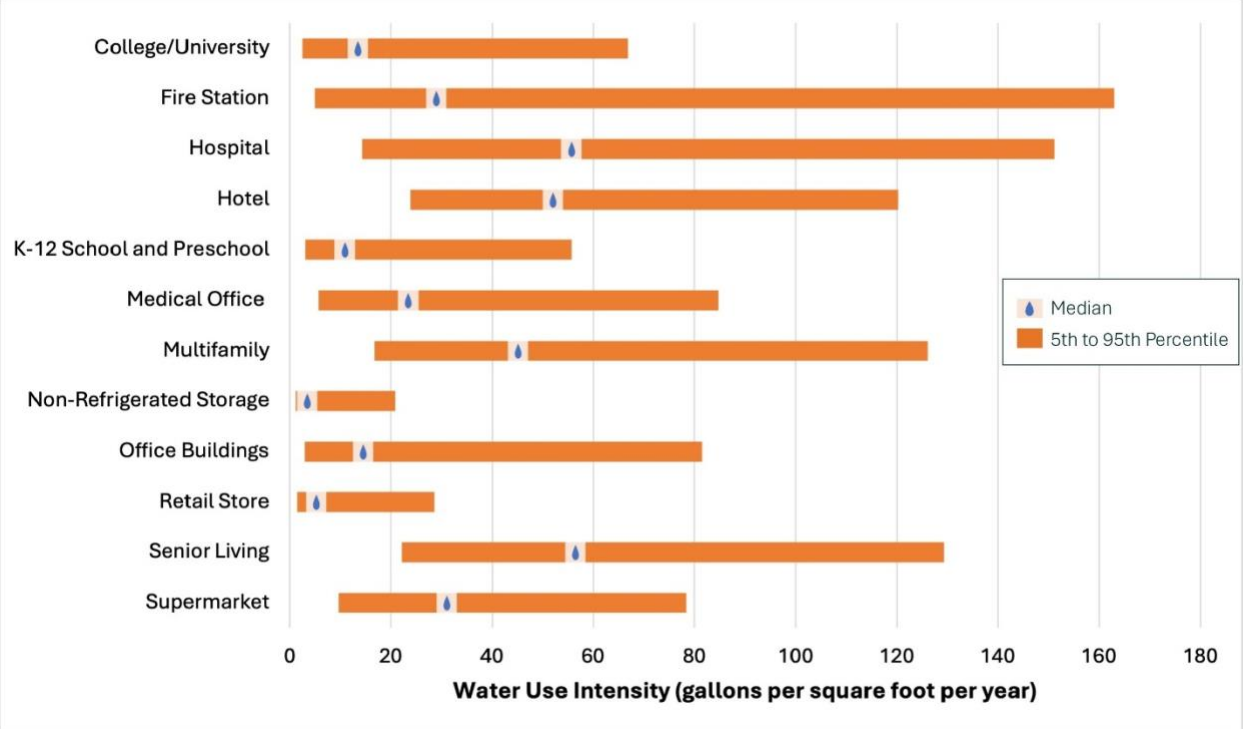
- Local health and fire departments, which can provide data such as the number of seats in a restaurant, the number of rooms in a hotel or nursing home, maximum occupancy rates, and other useful operational information.
- Local property taxing authorities, which maintain complete lists of all commercial facilities along with their classifications and square footage.
- School districts and state education agencies, which can provide information on the number of students and faculty for schools.
- State boards or bureaus of higher education, which can provide detailed information on university and college campus facilities, resident population, and enrollment.
- State health and/or human services agencies, which can provide information on occupancy and staffing of nursing home and rehabilitation facilities.
- State and local health departments, which can provide information on hospital facilities and number of patients. The American Hospital Directory and/or the American Hospital Association may also have helpful data.

Typical WUIs and Other Metrics for Select Property Types

Typical water use information is often difficult to find, especially on the local level. In the absence of local data, it can still be helpful to compare your facility's water use to other representative data available. EPA has developed a technical reference on median WUI values and other metrics observed in a variety of facility types based on water use data entered into ENERGY STAR Portfolio Manager (Table 2 on the next page).

Property types exhibit a range of median WUIs, with some property types exhibiting larger ranges of typical (5th to 95th percentile) WUI. These ranges, shown in Figure 1 below, speak both to the savings potential and the potential influences of different operating characteristics. Property types with higher median WUIs will generally offer more opportunities for savings. Property types with larger ranges of typical WUI will likely exhibit more influences from operating characteristics and features (e.g., climate, size, density).

Figure 1. Range (5th to 95th Percentile) and Median Water Use Intensity (gallons per square foot per year) for Selected Property Types



Factors Impacting Benchmarking

When benchmarking a facility against others locally or nationally, there are a few factors to keep in mind, including climate, equipment use, and facility type and subtype. Multifactor ratings can use models that normalize for several of these factors at once.

Table 2. Water Use Intensity Reference Values for Select Property Types *W*ithin ENERGY STAR Portfolio Manager[6]

Portfolio Manager Property Type	Number of Observations	WUI (gallons/square foot/year) Percentile					Median Property Type Specific Metric
		5th	25th	50th/Median	75th	95th	
College/University	590	2.48	6.20	13.40	28.34	66.92	N/A
Fire Station	126	5.00	13.95	28.90	54.29	162.95	N/A
Hospital (General Medical and Surgical)	347	14.30	38.28	55.71	77.44	151.18	107,000 gallons/ hospital bed/year
Hotel	1,488	23.94	40.06	52.02	69.28	120.23	33,500 gallons/ guest room/year
K-12 School and Preschool (includes Daycare)	1,588	3.04	6.88	10.84	19.71	55.69	11,200 gallons/worker/year
Medical Offices (includes Urgent Care/Clinic/Other Outpatient)	1,177	5.73	12.86	23.40	38.82	84.71	N/A
Multifamily*	258	16.76	31.71	45.15	65.56	126.14	43,600 gallons/unit/year
Non-Refrigerated Warehouse (includes Self-Storage Facility and Distribution Center)	1,675	1.15	1.84	3.43	6.69	20.88	N/A
Office (includes Bank Branch, Financial Office, and Other Offices)	9,627	2.93	7.83	14.48	29.41	81.52	6,020 gallons/worker/year
Retail Store	4,382	1.41	2.84	5.24	8.99	28.59	N/A
Senior Living Community	1,232	22.18	39.80	56.41	77.69	129.26	39,800 gallons/resident/year
Supermarket (includes Grocery Store, Wholesale Club, and Supercenter)	432	9.65	21.03	31.00	45.58	78.42	N/A
* Data Source: 2012 Fannie Mae Energy and Water Market Research Survey							

[6] WaterSense and ENERGY STAR. June 2023. U.S. Water Use Intensity by Property Type: Technical Reference. www.energystar.gov/buildings/tools-and-resources/u_s_water_use_intensity_property_type_technical_reference

It is important to recognize that without normalizing for climate, benchmarks from one region may not be representative of or comparable to benchmarks within another region due to variations in weather and climate. Different climates have different heating and cooling requirements, which can have significant impacts on the water used in steam boilers and cooling towers. Similarly, weather conditions and climate zones impact outdoor water used for irrigation and operation of fountains and swimming pools.

In addition, differences within a particular facility type may significantly affect water use. A resort hotel with recreational facilities and dining, for example, may exhibit different water usage patterns compared to a budget motel.

In general, comparisons of benchmarking data will be more meaningful if they are within the same climate zone and include similar facility types with similar equipment. A multifactor model (such as those used by ENERGY STAR or for the EPA Water Score) can also account for this variability.

Benchmarking Tools

There are several web-based tools available that can be used to help track water use and benchmark performance.

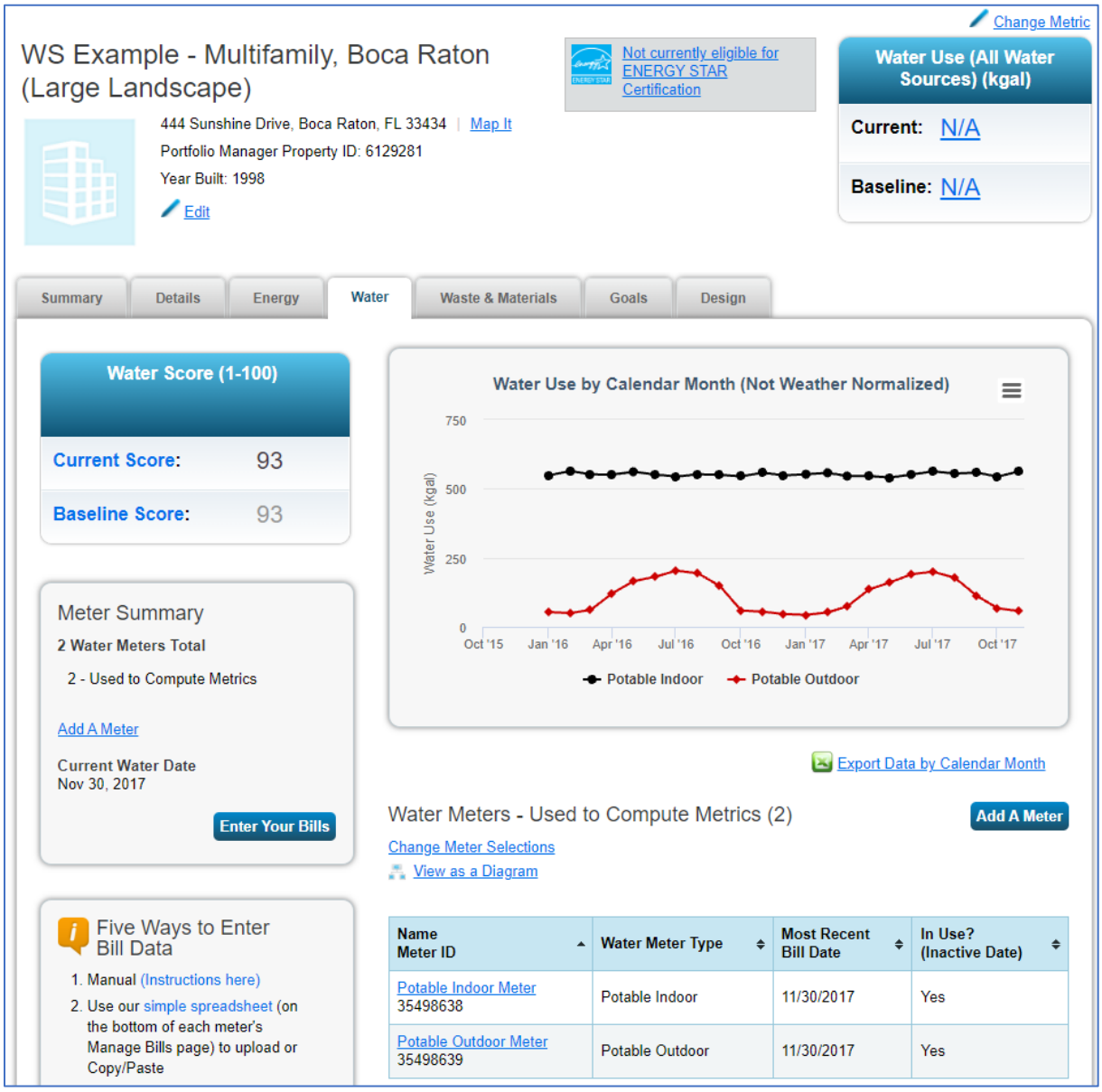
ENERGY STAR Portfolio Manager

ENERGY STAR Portfolio Manager (www.energystar.gov/buildings/benchmark) is a free resource for tracking of energy use, water use, waste, and greenhouse gas emissions for any type of building. It is an interactive resource management tool that offers the ability to benchmark commercial buildings. More than 300,000 properties, comprising more than 25 percent of commercial floorspace in the United States, have used ENERGY STAR Portfolio Manager to measure and track their energy use, water use, and/or waste and materials.[7] More than 130,000 of these properties used ENERGY STAR Portfolio Manager to track water use.

Portfolio Manager allows users to enter meter-level data, track data trends, set baselines and targets for properties, and compare performance across similar facilities. Data can either be entered manually, uploaded using a spreadsheet template, or exchanged through a utility or third-party provider via web services. Figure 2 on the next page shows an example of the Portfolio Manager dashboard.

[7] ENERGY STAR. ENERGY STAR Impacts. www.energystar.gov/about/origins_mission/impacts.

Figure 2. Example ENERGY STAR Portfolio Manager Dashboard



For multifamily properties with 20 or more units, Portfolio Manager can generate a 1-to-100 EPA Water Score indicating how the building uses water compared to similar properties nationwide. EPA provides tools and resources for how to reduce water use and improve a multifamily building's EPA Water Score at www.epa.gov/watersense/water-score-multifamily-housing. The score provides a statistical evaluation of whole-property water use—including both indoor and outdoor use—normalized for weather and multiple operational parameters (such as size, density, and irrigated area). A score is calculated by comparing the true WUI of the property to a similar building's predicted WUI with average efficiency. The result is a 1-to-100 number that identifies how efficient a property is relative to similar facilities given its location and operating characteristics. For example, a building

with a score of 25 is more efficient than 25 percent of multifamily properties and less efficient that 75 percent. Therefore, a higher EPA Water Score is representative of a more efficient property.

Although ENERGY STAR Portfolio Manager only offers an EPA Water Score for multifamily properties, it can still be a helpful tool for tracking the water use of other commercial property types and comparing water use across a portfolio of facilities.

Laboratory Benchmarking Tool

The International Institute for Sustainable Laboratories (I2SL) Laboratory Benchmarking Tool (LBT), developed by Lawrence Berkeley National Laboratory and I2SL, allows users to compare the energy and water use of laboratory buildings across the United States. The LBT is mostly advertised as an energy benchmarking tool for lab buildings, which are unique in terms of energy intensity and cannot receive an ENERGY STAR benchmarking score. However, the LBT also includes the WUI of laboratories in gallons per square foot per year. The LBT can be accessed at https://lbt.i2sl.org/.

Current Initiatives and Programs

Water use benchmarking is an ever-growing practice, and there are many ongoing governmental, academic, and private-sector initiatives and programs that support benchmarking data sets that allow building owners and managers to assess water performance compared to similar facilities.

Federal Initiatives

The U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey (CBECS, www.eia.gov/consumption/commercial/) is a national sample survey that collects information on U.S. commercial buildings, including energy and water use data. The 2018 survey provides building characteristics information for nearly six million U.S. commercial buildings. While CBECS mostly emphasizes building energy consumption, water use data are available dating back to 2012.

The U.S. Department of Energy (DOE) Better Buildings® Initiative (https://betterbuildingssolutioncenter.energy.gov/) is a voluntary program that aims to accelerate the adoption of efficient building technologies in homes, commercial buildings, and industrial plants. Its Better Buildings Water Savings Network brings organizations together to discuss and demonstrate approaches to conserve water in buildings, plants, and multifamily housing. Water Savings Network partners commit to sharing water use information across their portfolio of buildings.

State, City, and Municipal Initiatives

There are multiple U.S. states and dozens of cities and municipalities in the U.S. and Canada that have mandatory or voluntary energy and/or water benchmarking efforts targeted towards certain subsets of their building sector (e.g., commercial and multifamily buildings greater than 50,000 square feet). Along with benchmarking mandates, some cities also require either water reduction targets be met and/or periodic water audits be performed. For example, Los Angeles requires buildings to document a 20 percent reduction in WUI over the prior five years or undergo a water audit.[8] To learn more about location-specific benchmarking programs or ordinances, the Institute for Market Transformation (IMT) maintains a map related to benchmarking programs and policies in place throughout the United States at www.imt.org/resources/map-u-s-building-benchmarking-policies/.

The 2030 Districts Network is a non-profit organization with the goal of establishing a global network of high-performing districts and cities to mitigate and adapt to climate change. Each District is a designated urban area dedicated to meeting 50 percent reductions in energy, water, and greenhouse gas emissions by 2030. There are currently 23 established districts in the United States and Canada, representing 520 million square feet of commercial building space. Members have access to resources on establishing baselines, toolkits for conducting comparative analyses, and case studies on properties that have successfully improved their resource efficiency.[9]

Other Programs

There are several programs designed to help colleges and universities track and reduce their resource consumption. The Sustainability Tracking, Assessment & Rating System® (STARS) is a self-reporting framework, sponsored by the Association for the Advancement of Sustainability in Higher Education, that allows colleges and universities to measure their sustainability performance, including water use. Institutions are awarded points towards an overall rating system for their ability to reduce potable water use per person, potable water use per unit of floor area, and total water withdrawal per unit of vegetated grounds. Over 1,000 institutions have registered to use to the STARS reporting tool.[10] In 2020, ENERGY STAR launched the Higher Education Benchmarking Initiative (HEBI), a free and voluntary program designed to help colleges and universities understand how the energy and water performance of their campuses compare to those of peer institutions. HEBI allows institutions to track absolute water use and WUI through ENERGY STAR Portfolio Manager.

[8] Retrofit.LA. https://retrofit.la.

[9] 2030 Districts Network. www.2030districts.org/.

[10] Association for the Advancement of Sustainability in Higher Education (AASHE). The Sustainability Tracking, Assessment & Rating System (STARS). https://stars.aashe.org/.

The Cornell Hotel Sustainability Benchmarking (CHSB) study is an annual study that collects energy and water data from thousands of hotels around the world, including from major international hotel brands. This tool allows hotels to evaluate energy and water performance compared to average performance for different types of hotels in different regions.[11]

While not necessarily a benchmark to evaluate facility-level water use performance, the Carbon Disclosure Project (CDP) collects corporate disclosures on water data from companies worldwide and subsequently issues an annual Global Water Report. This represents a growing trend among companies to better manage their water use and disclose water issues.[12]

Additional Resources

Association for the Advancement of Sustainability in Higher Education (AASHE). The Sustainability Tracking, Assessment & Rating System (STARS). https://stars.aashe.org/.

City Energy Project. May 2019. *Water Audit Guidance for Commercial Buildings*. www.cityenergyproject.org/resources/water-audit-guidance-for-commercial-buildings/.

ENERGY STAR. Benchmark Your Building Using ENERGY STAR Portfolio Manager. www.energystar.gov/buildings/benchmark.

ENERGY STAR. What is Water Use Intensity (WUI)? www.energystar.gov/buildings/benchmark/understand_metrics/what_water_use_intensity_wui.

Greenview. Cornell Hotel Sustainability Benchmarking (CHSB) Index. https://greenview.sg/services/chsb-index/.

Institute for Market Transformation (IMT). Map: U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond. www.imt.org/resources/map-u-s-building-benchmarking-policies/.

International Institute for Sustainable Laboratories (I2SL). Welcome to the Laboratory Benchmarking Tool. https://lbt.i2sl.org/.

Texas Water Development Board. May 2018. *Best Management Practices for Commercial and Institutional Water Users*. www.twdb.texas.gov/conservation/BMPs/CI/index.asp.

[11] Cornell Hotel Sustainability Benchmarking Index. https://greenview.sg/services/chsb-index/.
[12] The Carbon Disclosure Project (CDP). Why disclose as a company. www.cdp.net/en/companies-discloser.

U.S. Department of Energy. Better Buildings Initiative. https://betterbuildingssolutioncenter.energy.gov/.

U.S. Energy Information Administration. Commercial Buildings Energy Consumption Survey (CBECS). www.eia.gov/consumption/commercial/.

U.S. Environmental Protection Agency (EPA) WaterSense program. Water Score for Multifamily Housing. www.epa.gov/watersense/water-score-multifamily-housing.

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