
FACILITIES – MAINTENANCE SERVICES**Ron Umali, Administrator for Maintenance & Custodial Services**

Summary

Maintenance Services is responsible for the repair and maintenance of the district's school buildings, grounds, and support facilities covering over 5.6 million square feet of building space contained in 63 separate facilities on 875 acres of property. Maintenance Services consists of the trade-specific departments HVAC, Plumbing, Electrical, Carpentry, Roofing, Glazing, Painting, and Grounds. Stewardship of our district assets is accomplished with 68 trade-specific professionals, temporary summer help, coordination with our Maintenance Projects Team, Facilities Development, as well as contracted services.

This past year, the department continued focusing on process improvement and efficiency. The Maintenance Department implemented different strategies to adjust to financial challenges, such as reducing non-essential maintenance and self-performing maintenance tasks that would normally be contracted. The shift from contracting to performing tasks in-house means Maintenance staff are expected to be more efficient to accomplish our maintenance goals.

The school district's asset portfolio continues to grow. Along with this growth is the increase in the complexity of building systems. As the systems become more complex, more skilled and technical labor is needed to ensure these systems are maintained properly. Currently, the district relies on contractors to assist BSD staff to make sure systems get the proper attention needed to keep them at optimal operating levels. Maintenance Services is investing in specialized training for staff to reduce the district's reliance on contractors to maintain critical systems.

Accomplishments**1. Streamlined Operations & Response Optimization**

An overhaul of our workflow procedures has significantly improved the prioritization process and has helped reduce response times across the entire district. By implementing a triaging framework directed by the supervisor, we eliminated manual scheduling bottlenecks, allowing high-priority and emergency maintenance requests to be routed expeditiously to the nearest available technician. This optimization has not only maximized our field capacity but has also established a predictable, flexible service model that ensures the district's critical operational needs are addressed faster and more efficiently.

2. Improved Work Order Processing

Work order volume continues to increase year by year. This year the department has made some changes to processes, as well as reorganization of staff to address the increase in workload. So far, the department has been able to keep up with its workload. We continue to improve the time it takes the department to address and resolve work orders. The department will continue to improve its efficiency by making small adjustments to its processes.

3. Enhanced Collaboration with the Bond Team

Maintenance Services has increased strategic collaboration with the bond team to accelerate the successful closeout of projects. By establishing dedicated communication channels, we will bridge the gap between project delivery and final operational handoff. This partnership will focus on streamlining the punch-list resolution process, auditing final deliverables, and ensuring a seamless transfer of documentation and warranties. Strengthening this alliance in the short term will eliminate administrative delays, optimize asset transition, and ensure that all bond-funded initiatives are closed efficiently and transparently.

Challenges

1. Operational Challenges: Standardizing the Service Experience

Our current field operations face an inconsistency in customer service delivery, creating variance in client satisfaction. Without a unified operational framework, the quality of client interactions and maintenance execution fluctuate significantly across the team. We must establish a baseline standard of customer service excellence universally upheld by all maintenance staff. Overcoming this challenge requires a coordinated strategy: first, introducing targeted leadership to enforce accountability and model expectations, and second, implement training that equips every technician with the communication tools and service protocols necessary to deliver predictable, high-quality experience at every visit.

2. Inflation and Increasing Oil Prices

The maintenance and repair industry has seen some of the highest overall inflation percentages in the past 5 years. On top of that, oil prices continue to rise, which means increases in fuel prices. In 2024, the department implemented strategies to shorten drive times and distances. This has helped the fleet drive less than the previous year. The department spent over \$123,000 to fuel its fleet last year. Although the department is using less fuel, our fuel cost is still projected to be above last year at around \$145,000. The increase in oil prices does not only affect fuel costs. All petroleum-based products are also affected by the increase in price. The impact is felt throughout all groups in the department, Maintenance, Custodial, and Projects.

3. Aging Workforce

Maintenance Services has several employees in critical positions that are approaching or at retirement eligibility. Filling these positions has been a challenge in the past and it is anticipated to be a challenge when it is time to recruit for these positions again. The department started two apprenticeship programs to address this concern and is also exploring different options to replace retiring employees.

Short Term Goals

1. Training Employees to Fill Critical Positions

Maintenance Services currently has three positions allocated to the HVAC and electrical apprenticeship program. The department provides on-the-job training, while Portland Community College provides the course work for the programs. The electrical apprentice is scheduled to graduate next year, while the HVAC apprentice will graduate two years later. After graduating from these programs, these employees will immediately fill critical positions in the department.

2. Continuous Process Optimization & Feedback Integration

In the immediate term, we will continue to explore and execute new efficiencies within our work order ecosystem to maximize field productivity. Our focus will center on identifying remaining bottlenecks and leveraging data-driven insights to refine our scheduling and dispatch workflows. Crucial to this effort will be the implementation of a structured feedback loop, actively gathering input from both our field technicians and district stakeholders. By listening to the front line and analyzing service metrics, we can rapidly iterate our processes, ensuring our operational improvements are continuous, impactful, and closely aligned with the district's evolving needs.

Long Range Goals

1. Faster Response and Better Customer Service

The new work order system has given the department better control and prioritization of all work orders. The new system has also provided more transparency, giving our customers access to information on their work orders, such as status and when the work is scheduled. Maintenance is continuously making small changes to its processes for improved customer service.

2. Improved Employee Satisfaction

Employee surveys of Maintenance Services staff revealed areas for improvement in the department. The key areas the leadership team will focus on are communication, transparency, and inclusion.

3. Optimization and Standardization

Maintenance Services is working to increase optimization and standardization. The goal is to optimize to have a ratio of 80% for planned maintenance to 20% or lower for reactive maintenance. The lack of critical information leads to wasted time and resources. By standardizing and maintaining comprehensive records of assets, the department can potentially lower the average time it takes to fix critical equipment and reduce down times.

FACILITIES – CUSTODIAL SERVICES

Summary

The custodial team is responsible for providing a level of cleaning that will result in a clean, safe, and secure environment for district students and staff. This group is currently configured with 54 building foremen and 202 custodians deployed to 53 schools, with 10 centralized roving custodial teams to respond to vacancies and absences. Within this group are four Maintenance Custodians (MC3), who are tasked with minor maintenance repairs, as well as custodial duties. To minimize the impact on our schools, the MC3 team works in the evening. They do similar work that a “handyman” would do. Custodial Services makes up over two-thirds of the total staffing of the Maintenance Services Department and has five supervisors to oversee their work.

The Custodial Services Supervisor also oversees the surplus material management team. It is composed of a foreman, a shipping clerk and seven courier staff. This staff manages the removal, warehousing, and final disposition of the district’s surplus curriculum, technology, furniture, and equipment. This staff also manages relocation of teachers throughout the district.

Accomplishments**1. Development of Floor Care Plan**

The custodial group allocates approximately \$50,000 annually for waxing to maintain and protect hard surface floors across the district. To optimize both budget and labor, we implemented a new floor care program utilizing four recently acquired high-speed burnishers. Supervisors have successfully trained each custodial foreman on the process and utilization of the newly acquired burnishers. This strategy allows for consistent maintenance throughout the year, enabling us to wax only half of the district's floors each year.

2. Update Custodial Handbook, SOP, Routes, and Scope of Work

Custodial work requires constant pivoting from vacancies, absences and leaves. With the reduction in staff, larger new buildings such as Raleigh Hills and Beaverton High School, and to ensure the most efficiency out of staff, over 75% of new routes for the custodians have been implemented. Additionally, the custodial group has implemented 12 new standard operating procedures (SOPs) to assist custodial staff with clear expectations, standardized practices, and consistent guidance for completing essential job functions. These SOPs have helped establish consistency, improve accountability, and give the employees a clear understanding of district and custodial standards.

3. Improved Employee Retention

Through improved onboarding processes, we have successfully dropped custodial turnover rate from approximately 15% in the 2024-25 school year to approximately 5% in the 2025-26 school year. Each field supervisor meets with a new employee and starts Vector training on the first day and then meets with them throughout the next few weeks to ensure new hires are comfortable with their new assignments. Custodial foremen have been working with their new employees with approved overtime to ensure they are getting the required training and empowering our employees to take ownership.

4. Improved Custodial/Maintenance Collaboration

Since the implementation of the new work order system, Incident IQ (IIQ), custodial foremen have taken on a pivotal role in ensuring work orders move through the different phases in the system for timely and efficient completion by the maintenance team. Improvements in communication and collaboration between the custodial and maintenance teams improved the department's ability to address maintenance issues throughout the district. Custodial foremen address minor maintenance issues immediately, while routing work orders that require more extensive work to the maintenance team. This team collaboration and communication is resulting in quicker responses to maintenance issues, as well as improved customer service.

Challenges

1. Employee Injuries

Custodial work is highly labor-intensive and is physical in nature, creating ongoing workplace safety challenges. The most common employee injuries continue to be slip, trip, and fall incidents due to slippery floors and tripping, which can result in staff members being temporarily unable to perform their regular duties and requiring placement on light-duty assignments. Custodial continues to work closely with Risk Management to support employee recovery and facilitate safe and timely return-to-work opportunities. While these collaborative efforts have proven effective in reducing extended time away from work, light-duty restrictions and injury-related absences continue to present operational challenges that impact staffing flexibility, building coverage and overtime utilization.

2. Absences

On any given day, the custodial team will have absences due to illness, paid time off (PTO), or vacation. The custodial team has 13 custodial rovers to cover planned absences, five during the day and eight dedicated to cover evenings. While current custodial rover staffing helps address planned leave coverage, we currently do not have dedicated staffing capacity to address unplanned absences such as PTO or employee sick leave. On average, the department manages approximately 200 sick days per month, requiring daily operational adjustments through overtime assignments and the reassignment of custodial staff between buildings to maintain service levels and meet cleaning standards.

Short Term Goals

1. SOP for HVAC Filters

The district uses thousands of HVAC filters every year. HVAC filter orders are currently managed through a reactive process, and filters are ordered using an outdated inventory sheet. Tracking and identifying incorrect or missing shipments has been challenging, inefficient and sometimes costly. To improve operation efficiency and inventory accuracy the custodial team has developed an SOP designed to better manage HVAC filter inventory district-wide. This SOP will help to reduce ordering errors, improve accuracy, maintain correct shipments and reduce overall costs. The goal is to have all current HVAC filters identified, inventoried and tracked through a standardized process by summer of 2027.

2. Min/Max Orders

For the past two years, the custodial team has worked with all custodial foremen along with suppliers to help control inventory levels of custodial supplies in district buildings. In the past year, the team has worked hard to deplete excess inventory and tracked monthly supply expenses. The goal is to create minimum and maximum levels for consumables to help level out monthly cost on supplies while keeping the school ready for educators each day.

3. New Scrub and Recoat (Wax) Process

The custodial group allocates approximately \$50,000 annually for waxing to maintain and protect hard surface floors across the district. Each school currently has a process to scrub and recoat (wax). The team is working with industry experts to find the best products to be the most efficient while driving down costs, to have uniformity across the district.

Long Range Goals

1. Transform Schools into Community-Ready Facilities

Custodial Services is working to position itself as a key contributor to creating welcoming, event-ready, and community-centered schools that support student pride, family engagement, and expanded district use of facilities. The goal is to collaborate with the Facilities Use team to create a higher facility readiness for school and community events, by building a stronger partnership between schools and operations. Additionally, create an improved constancy in facility appearance across all campuses for afterhours support and community use for district facilities.

2. Create a Future-Ready Operations

With continual changes to the maintenance department, we plan to build a long-term operational strategy that prepares the custodial team for changing workforce expectations and evolving facility demands. Continual cross-training of employees across sites and functions will facilitate keeping up standards and improved efficiency. Along with advancement in technology, investigate the integration of emerging cleaning technologies and automation, such as automated scrubbers and vacuums to alleviate the added workload to custodial staff.

FACILITIES – MAINTENANCE PROJECTS TEAM

Summary

The Maintenance Project Coordinator Team, operating within the Maintenance Services Department, is dedicated to conducting essential annual compliance inspections, executing related repairs and upgrades, overseeing safety inspections, managing general work orders, and facilitating facility improvement projects (FIP) across all district buildings. Our primary focus lies in the upkeep of buildings, ensuring they meet regulatory standards, and safeguarding the well-being of district students and staff. Approximately 80 percent of our efforts are directed towards maintenance and compliance tasks, with the remaining focus dedicated to accommodating facility improvement projects (FIP) to enhance our facilities.

The team consists of eight dedicated individuals, each specializing in a specific program area. Their responsibilities encompass essential annual compliance inspection programs, including stormwater treatment (such as bioswales, LIDA swales, filtered and unfiltered catch basins), underground and above-ground fuel storage tanks (UST/AST), generators, fat/oil/grease interceptors, backflow device testing, asbestos inspections and abatement, ADA barrier removal, radon, and lead in drinking water. Additionally, we manage integrated pest management (IPM) initiatives and conduct safety measure inspections, covering areas such as stage rigging, bleachers and backstops, Skyfold partitions, fire systems, fire door drop testing, distributed antenna systems (DAS), turf fields, crane and winch operations, and all elevators and lifts district-wide.

Accomplishments**1. Improved Nutrition Services Support**

Kitchen equipment used by Nutrition Services are crucial to ensuring students are provided the proper meals during the day. Because these repairs are contracted to firms specializing in kitchen equipment, the time it takes from reporting the issue to resolution can be long. Through adjustments of processes, we significantly improved response and resolution times. The average response time decreased from 8.9 days in 24/25 to 2.5 days in 25/26, and resolution time improved from 31.7 days to 15.9 days. The faster service and reduced equipment downtime ensures that Nutrition Services kitchens remain fully operational with minimal disruption to daily meal service and significant reduction in food loss.

2. Enhanced Asset Implementation and Tracking in the Work Order System

We have expanded asset implementation within the district's work order system to better leverage its tools and drive operational efficiencies across district equipment and infrastructure. Starting with accurate information improves visibility and enables more accurate reporting, supporting streamlined maintenance scheduling and capital planning. Assets are tagged with QR codes, allowing staff to quickly access asset information, track repairs, and update records directly from mobile devices with just a few clicks. This functionality reduces manual processes, minimizes data entry errors, ensures consistent, up-to-date life-cycle documentation, and accelerates response times all within maintenance work orders.

3. Reduced Facility Improvement Project (FIP) Wait Times

The facility improvement projects (FIP) program was created in the Maintenance Department to assist schools wishing to do projects at their facility. In the past, the large number of requests through this program resulted in exceedingly long wait times before a project could start. Maintenance and repair of assets always take priority before school projects. We understand the importance of these projects to schools and through process improvements and enhanced coordination among teams, we were able to reduce FIP wait times by 30% compared to the previous year. These efficiencies were achieved by refining request workflows and prioritizing critical needs. This reduction allows for quicker response to project requests by schools, minimizing disruption and improving service delivery across District sites.

4. Increased Project Completion and Faster Resolution Times

By optimizing scheduling, enhancing communication, and leveraging performance data, our projects team was able to deliver more projects in less time. We increased the number of completed projects compared to the prior year, while also improving average resolution time by 19%. These improvements reflect a continued focus on operational efficiency and timely service for staff and students.

5. Reduction in Pest Issues Through Education and Management Practices

In collaboration with custodial and facilities teams, we implemented enhanced pest management protocols and increased staff education efforts. As a result, there is better reporting and pest management, with faster resolution times across the district. These proactive measures, combined with improved response tracking and prevention strategies, contribute to healthier and safer learning environments, while also minimizing the pest impact to schools.

Challenges

1. Reliance on Contracted Services

This group relies primarily on contracted services to accomplish its maintenance mission. With the maintenance and repair industry seeing some of the highest overall inflation percentages in the past 5 years and contractors raising prices, it is increasingly becoming more difficult to meet the district's maintenance goals. To address this problem, there has been increased collaboration between the Maintenance Department leaders to perform most of the work in-house to offset the increase in contractor cost.

2. Limited Historical Asset Data and Documentation

A significant challenge across the district is the lack of complete and reliable historical asset information. Many systems and pieces of equipment do not have consistent records for installation dates, maintenance history, repairs, or prior replacements. This gap in documentation limits visibility into asset conditions, performance trends, and true lifecycle costs.

Without accurate historical data, it becomes more difficult to proactively plan maintenance, forecast capital replacements, and prioritize resources effectively. As a result, teams may rely on reactive approaches or manual verification, which can increase downtime and inefficiencies. Establishing comprehensive and standardized asset records remains a critical need to support data-driven decision-making, improve long-term planning, and maximize the lifespan of district assets.

Short Term Goals

1. Standardized Asset Data Collection

Develop and implement a consistent process for capturing critical asset information—such as installation date, condition, and maintenance history. This effort will be strengthened through improved coordination with the Facilities Development closeout process to ensure accurate and complete records for newly completed projects. In addition, standardizing data collection for new equipment purchases will ensure assets are properly documented from the point of acquisition, improving overall data accuracy and long-term tracking.

2. Asset Tagging

Along with standardizing asset data collection, the department will continue to tag district assets with a QR code, giving maintenance staff easy access to important information about the asset such as, model number, manufacturer, age, maintenance history, and other pertinent information that is useful to prolong the life of the asset.

3. Audit and Update District Facility Maps and Records

Conduct a comprehensive audit of all district facility maps, floor plans, and building records to ensure accuracy and consistency across systems. Update and standardize mapping data to reflect current building conditions, space usage, and infrastructure changes, with a goal of achieving X% accurate and verified map coverage across all sites. This effort will improve emergency response coordination, project planning, and day-to-day operational efficiency by ensuring staff have access to reliable and up-to-date spatial information.

Long Range Goals

1. Implement a Fully Data-Driven Maintenance Program

Transition to a fully integrated, data-driven maintenance model that leverages our current asset management system and asset data to guide decision-making. The goal is to reduce reactive maintenance and increase preventative and predictive work, resulting in improved system reliability, reduced costs, and extended asset life across the district.

2. Strengthening District-Wide Operational Efficiency and Service Standards

Establish consistent, district-wide standards for work order response, resolution, and communication across all departments and sites using and tracking through the work order system. The goal is to ensure equitable service delivery, improve transparency, and maintain sustained performance benchmarks (e.g., response time under 2 days and resolution time under 15 days) through continuous improvement, staff development, and system optimization.

FACILITIES – Energy and Resource Conservation

Summary

The Energy and Resource Conservation (E&RC) department's primary mission is to incentivize, fund, and implement energy-efficient building systems for schools and supporting facilities. These energy investments save utility costs while simultaneously improving thermal comfort, ventilation, and lighting quality in the learning environment. Our department continues to work closely with Facilities Development and Maintenance Services to deliver cost-effective high-efficiency HVAC systems and controls, lighting, and roof insulation upgrades. Energy Trust of Oregon (ETO) incentives and SB1149 funding administered by the Oregon Department of Energy (ODOE) provide considerable funding to these cost-effective upgrades.

The total 2024-25 utility spend on electricity, natural gas, water, and waste/recycling was \$11.3 million — \$565,000 over the 2023-24 comparative year primarily due to utility rate increases across the board.

The primary building metric for energy performance is the Energy Use Index (EUI) defined as kBtu/SF/YR. The lower the value the better. District-wide our portfolio average dropped to 40.7, 7% lower than last year's average of 43.7. This was primarily due to tightening our HVAC operation schedule. ODOE's recommended EUI value range is 47–61 and the national school building EUI average is 49. Additionally, BSD has 33 EPA-recognized Energy Star schools.

BSD solar systems generated over 900,000 kWh last year for a lifetime total of 6.8 gigawatt hours (million kWh) of electricity, enough to power 650 average-sized homes for a year.

Looking ahead, E&RC predicts the biggest challenge for the district is offsetting energy and water usage in the face of steadily rising utility rates across the board.

Energy Funding

E&RC program funding is derived from Senate Bill 1149 which mandates a public purpose charge (PPC) by Portland General Electric and Pacific Corp electric utilities. The PPC funds the Energy Trust of Oregon (ETO) and the first 10% is directed at school districts in these utility service areas. School districts are also eligible for separate ETO incentive dollars in addition to SB1149 program dollars. E&RC utilizes ETO Existing Building (EB) retrofit and ETO New Building (NB) construction programs to leverage the following resources:

- Strategic Energy Management (SEM) Program
 - ETO provides a team of coaches to assist with energy policy and plan development focused on low-cost/no-cost energy saving measures. However, cash incentives are provided to the district for achieving program milestones.

- Free Facility Audits
 - ETO EB funds site-specific energy efficiency audits with qualified 3rd party Trade Ally energy engineers.
 - The energy audit is delivered to the Oregon Department of Energy to streamline the process of approving high payback energy measures.
- Equipment Incentives
 - ETO EB provides incentive dollars for approved and implemented EEMs in addition to SB1149 project funds.
 - ETO NB incentivizes early commissioning, energy modeling, and installed energy efficient equipment that exceeds baseline Oregon energy standards.
 - Incentives may cover up to 50% of project costs.

Current Bond Contributions

E&RC secured over \$2.4 million in SB1149 contributions and over \$670k in ETO EB program incentives this year toward facilities projects alone that invested in new energy-efficient building systems. Please see project funding breakout in Table 1 below.

Additionally, over \$500k in ETO New Building Incentives applied to new square footage projects are expected.

Installed energy-efficient building system equipment includes but is not limited to:

- HVAC direct digital control systems,
- Condensing boilers and hot water heaters,
- Variable frequency pumps and fans,
- High-efficiency heat pumps and variable refrigerant flow systems,
- Interior and exterior LED lighting and control upgrades,
- Envelope upgrades such as roof/ wall insulation and windows, and
- Building automation system retro-commissioning.

Total utility savings are estimated at nearly 2.8 million kWh and 100,000 therms per year for a total annual cost savings of over \$400,000.

Table 1. 2025-2026 SB1149 and ETO Project Funding

Project Energy Efficiency Measure	Max Reimbursable Amount	
	SB1149	ETO
Capital Center BASE (2024) - \$400,740		
HVAC RTU and DDC	\$ 318,420	\$0
Café Roof Insulation (2026)	\$ -	\$15,000
SB1149 RCx (82,320)	\$ 82,320	\$0
Mountain View MS (2024-2025) - ~\$825,000		
HVAC DDC	\$ 285,085	\$139,980
LED Lighting Phase 1 (2024)	\$ 193,558	\$4,650
LED Lighting Phase 2 (2025)	\$ 150,000	\$0
Upgraded windows	\$ 51,700	\$0
BHS (2025) - \$60,000		
LED Stadium Lights (est.)	\$ 60,000	\$0
AHS HVAC (2025-2026) - ~\$1,100,000		
AHU Upgrades	\$ 134,880	\$0
DDC Upgrade	\$ 285,797	\$86,118
New Condensing Boilers (est.)	\$ 200,000	\$78,000
Heating Water Pumps	\$ 33,420	\$7,231
Chilled Water Pumps	\$ 15,080	\$0
Interior LED Lighting	\$ 250,000	\$0
Meadow Park (2025) - ~\$650,000		
LED Lights Upgrade	\$ 300,000	\$37,145
New Roof Insulation Phase 1 (est.)	\$ -	\$150,000
New Roof Insulation Phase 2 (est.)	\$ -	\$150,000
West TV (2025) - \$30,000		
HVAC Upgrade	\$ 25,000	\$5,000
SRHS Auditorium (2025) - \$35,000		
Theater Lights Upgrade	\$ 35,000	\$0
2025-2026 Subtotal	\$ 2,420,260	\$673,124

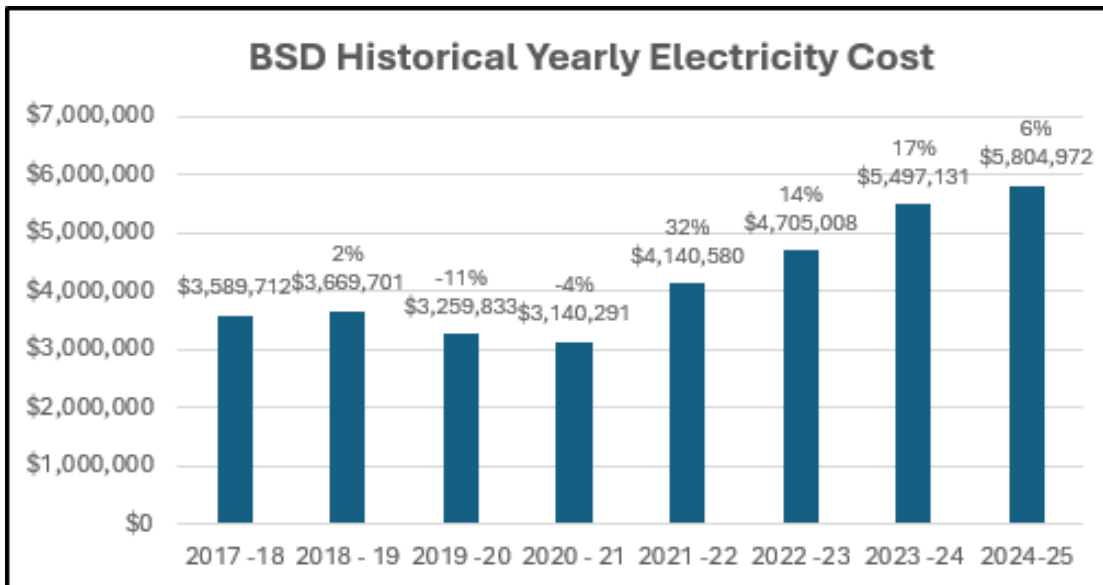
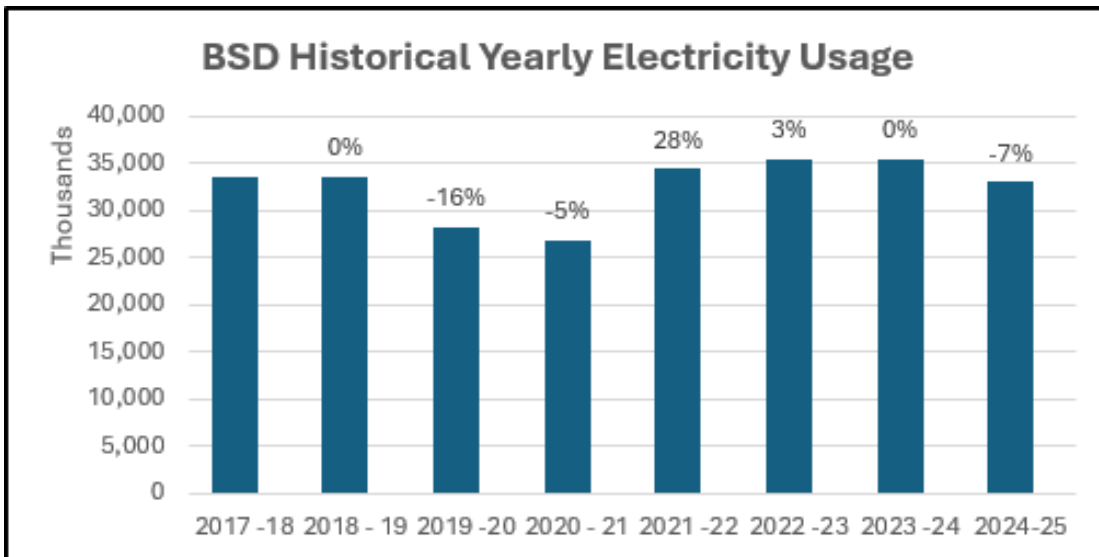
Utility Analysis

Electricity

BSD Historical Usage and Cost Profiles July 2017 through July 2025

Electricity usage decreased last year by nearly 7% primarily due to global HVAC scheduling modifications, however, rates increased 12%. This has resulted in a 6% cost increase and \$300k more spent. PGE announced a 6.0% average rate increase in January 2025 and another 5.4% average rate increase in April 2026. Rates are projected to steadily increase as PGE invests in carbon neutrality and infrastructure resistant to extreme weather events. Continued investment in energy efficiency equipment and staff to service and optimize equipment is critical to driving savings.

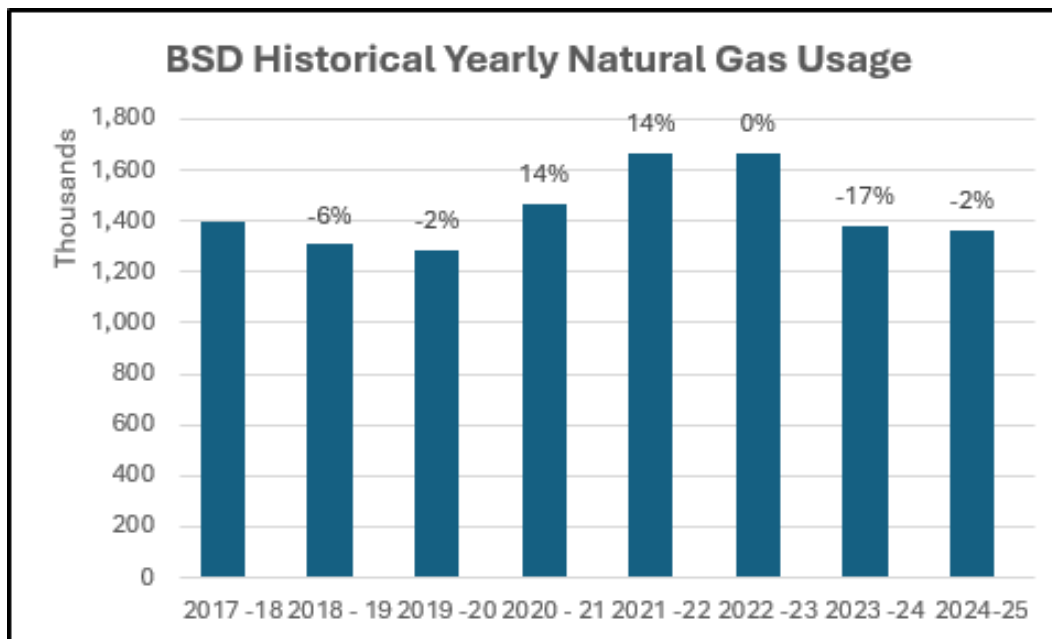
Note: Full 2025-26 utility data is not available until after 6/30/26.

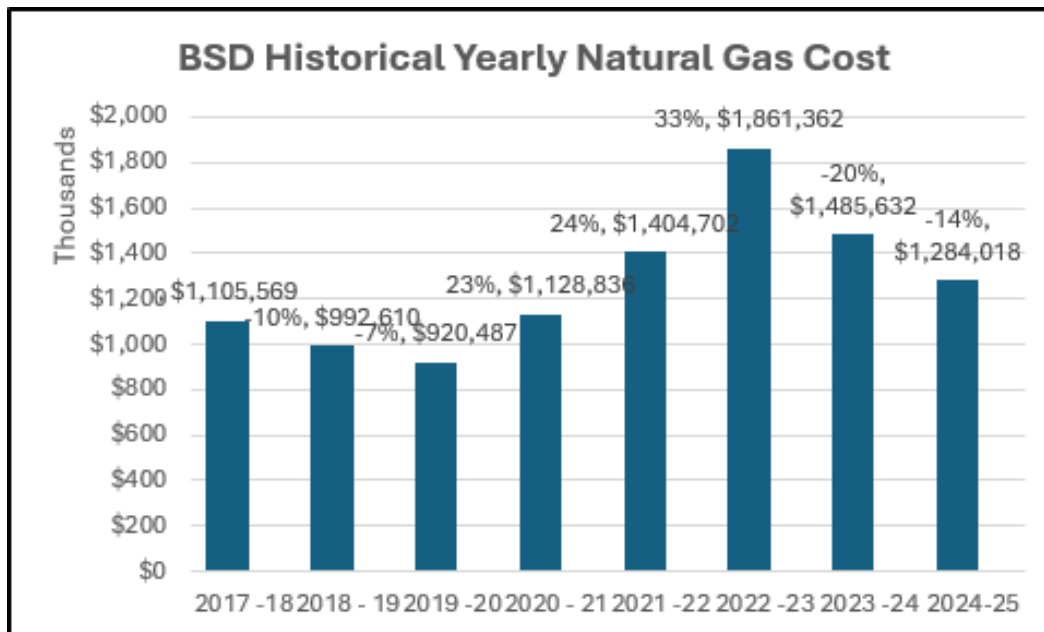


Natural Gas

BSD Historical Usage and Cost Profiles through July 2025

The 2024-25 winter realized milder temperatures, similar to 2023-24, decreasing by 2% primarily due to less annual heating-degree days. Usage generally follows the weather and varies year by year. The colder the outdoor air the more therms consumed and vice versa. After a couple of years of rate decreases, rates increased by 10% in November 2025 and we expect double-digit annual rate increases to continue for the foreseeable future. The district will continue to invest in high-efficiency natural gas HVAC and water heating equipment and monitor our sites to operate as efficiently as possible.

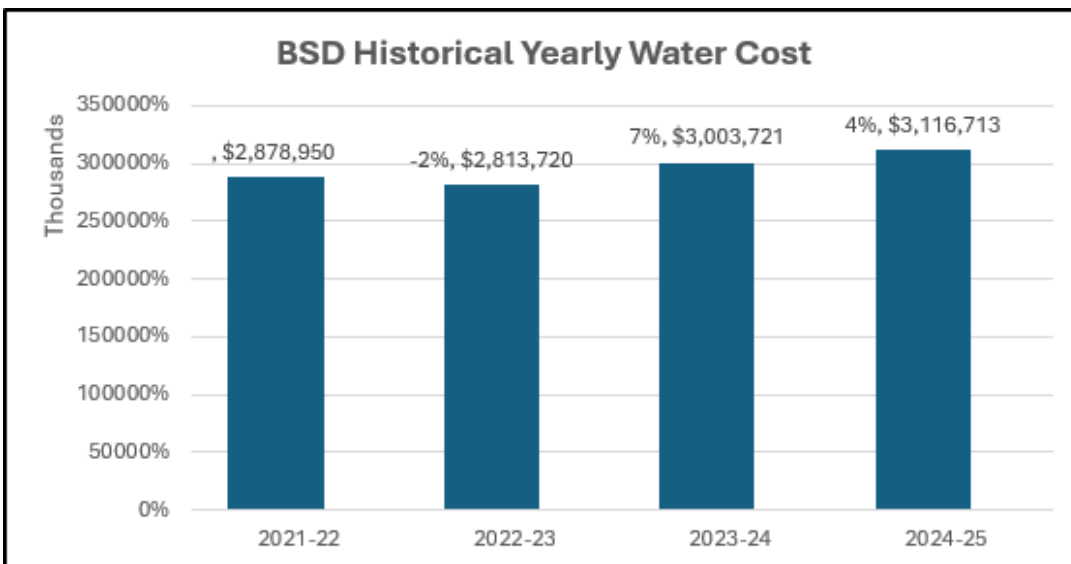
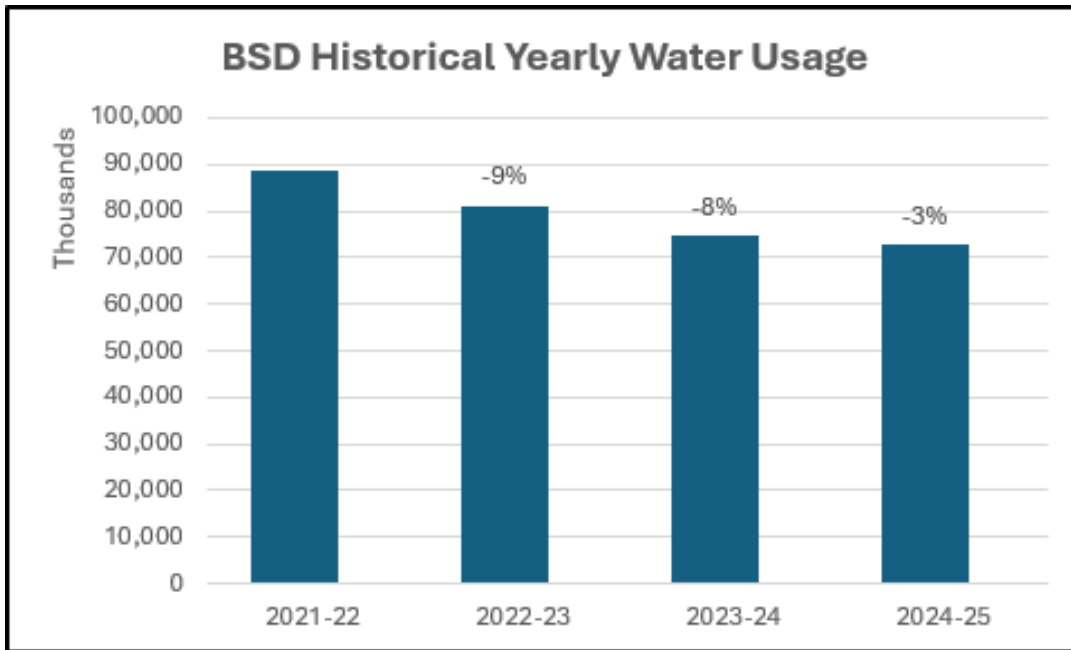




Water

BSD Historical Usage and Cost Profiles through July 2025

Water usage decreased 3% compared to the prior year primarily due to lower irrigation volumes driven largely by milder summer weather conditions. Over the last several years rising water costs have been concerning. Rates increased nearly 20% in 2021-22 and rate increases have averaged 10+% annually since. Our usage has mostly stabilized but large reductions in water usage are still possible, especially irrigation. Approximately 70% of BSD water usage occurs in the irrigation months June–September. E&RC recommends investing in smart irrigation technology that detects leaks and irrigates as efficiently as possible.



Garbage and Recycling

Waste and recycling costs were up 8% compared to the year prior with an increased cost of \$73,000. E&RC will continue to advocate for waste reduction and increased recycling and composting. We will also continue to ensure that our sites' waste hauling is right sized.

Renewable Energy

BSD has 10 solar schools with photovoltaic (PV) systems ranging from 100-190 kW in size. Solar electricity

production reached just over 900,000 kWh for the 2024-25 school year at a cost benefit of \$170,000. This value will only increase as electricity rates increase. District solar generation capacity is expected to increase by over 30% as new Beaverton High and Raleigh Hills schools come online.

Accomplishments

1. E&RC continued to work closely with Facilities Development, Maintenance and Transportation Departments to deliver \$2.4 million in SB1149 contributions and \$650k in ETO Existing Building Incentives this year toward facilities projects that invested in new energy efficient building systems.
2. Total utility savings are estimated at nearly 2.8 million kWh and 100,000 therms per year for a total annual utility cost saving of over \$400,000.
3. E&RC has secured over \$670k in ETO EB program Incentives this year toward facilities projects that invested in new energy efficient building systems. ETO NB Program is expected to provide over \$500k in incentives towards new construction projects. These incentive dollars offset bond and SB1149 project expenditures.
4. BSD solar systems are now on pace to generate over 1 million kWh of electricity annually as new Beaverton High School and Raleigh Hills Elementary School systems come online. Not only does this lower our district's carbon footprint but it is a hedge against raising electricity rates.
5. E&RC has partnered with the transportation department to provide funding for 4 total electric vehicle (EV) buses funded through SB1149. E&RC fully funded the district's first EV charging station for 6 fleet EVs at the Transportation Support Center. Currently construction is underway for an 8-vehicle EV charging station at the District Support Center which houses the facilities and maintenance departments.
6. E&RC has proactively replaced many of the district's older high-intensity discharge (HID) lamps found in stadiums and parking lots with newer, more efficient LED fixtures and systems. All high schools currently have full LED parking and stadium light systems that are estimated to save the district over 395,000 kWh per year at a utility cost savings of over \$70,000 annually.

Challenges

1. Utility rates are projected to increase across the board into the foreseeable future. Water costs pose the highest level of concern due to the most aggressive rate increases of all the utilities. Unfortunately, E&RC has no budget mechanism to purchase water conserving irrigation equipment which poses an extremely high return on investment.
2. Energy savings is directly tied to our ability to service, maintain, optimize, and continuously commission HVAC, plumbing, and lighting systems. Operation and maintenance (O&M) and preventative maintenance greatly impact utility usage, costs, and equipment life. Adequately resourced HVAC, plumbing and electrical departments are critical to reducing energy and water usage and maintaining expensive and sophisticated building system infrastructure. Research suggests that new trades positions can pay for themselves in as little as 6 months with realized utility savings, equipment life-cycle extension, reduced emergency system repair, and less reliance on costly third-party contractors.

Short-Term Goals

1. Coordinate with HVAC and plumbing departments, when their limited time allows, to optimize building operation to drive down building EUI values. E&RC will monitor usage closely, reduce consumption where possible, and provide monthly use and cost updates.
2. Continue to deliver cost-effective energy-efficient HVAC and lighting systems that align with the bond renovation effort and maintenance needs. This will be achieved by contracting additional energy audits as needed, offering cost-effective SB1149 program measures, pursue ETO incentives, and collaborate to ensure continued success of all capital projects.
3. Assist the Maintenance Grounds department in evaluating smart irrigation system technology such as real-time irrigation flow meters.

Long Range Goals

1. Implement a fleet EV charging station for up to 25 additional EV fleet vehicles for Maintenance Services over the next 5 years.
2. Expand BSD's Energy Star Certification Portfolio and re-establish certified Oregon Green Schools.
3. Pursue Energy Management Information System (EMIS) software enhancements that will tie lighting and HVAC controls along with solar production and continuous commissioning for building performance optimization.