



Albuquerque Public Schools



Maintenance & Operations

Our mission is to partner with the schools in creating environments conducive to student success by providing purposeful, comfortable, aesthetic, clean, safe, and accessible learning and activity spaces in meeting academic achievement goals

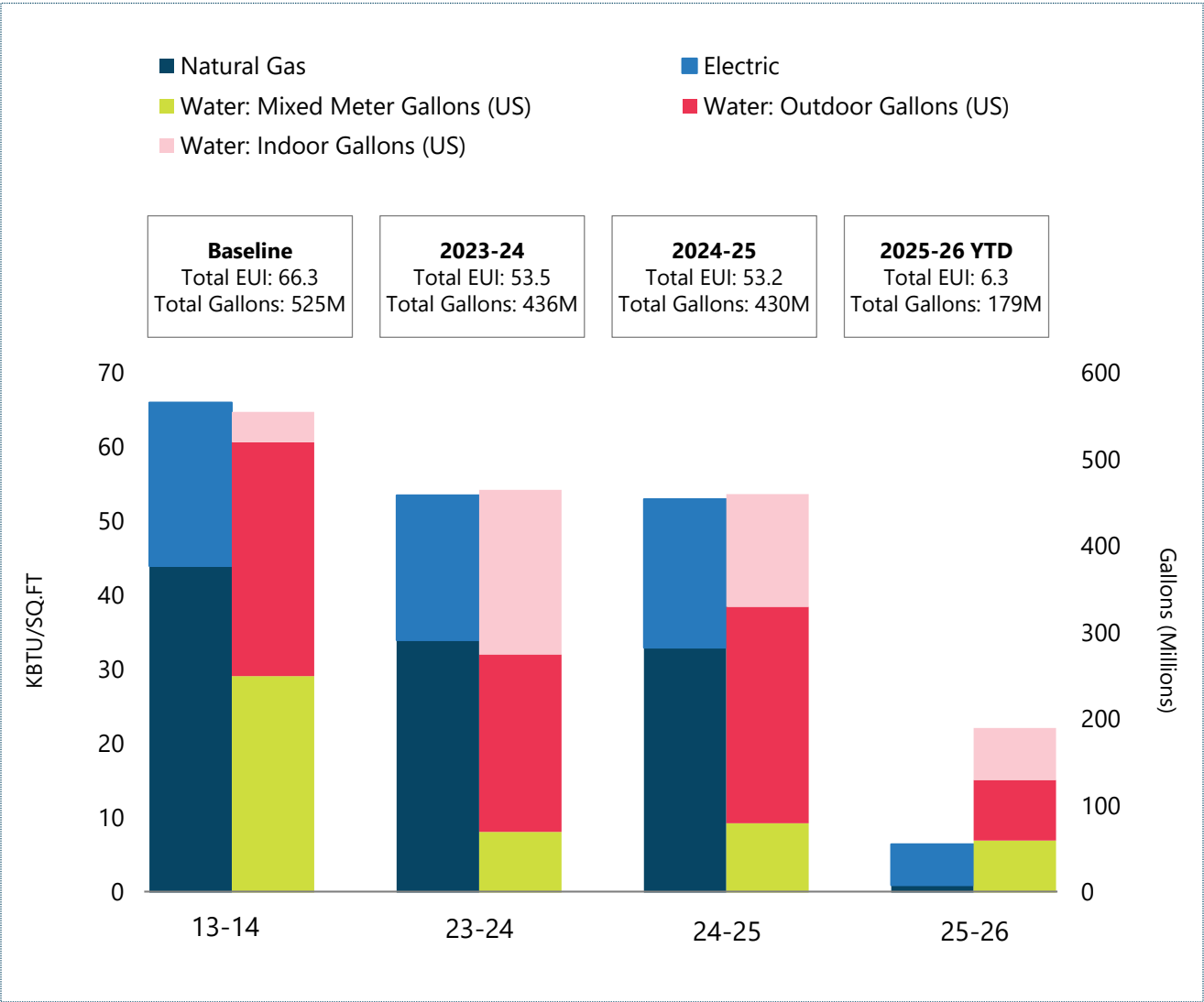




The Journey

- Ten years ago, one of the initiatives APS Maintenance & Operations decided to increase the speed from “data to decision” across all aspects of the M&O organization and business practices
- We now utilize real-time data to drive decision making in the following areas
 - Cost Control
 - Sustainability
 - Student Wellbeing
 - Mitigation and Prevention
 - Building Healthy Environments
- We have also increased transparency with our constituents while continuously improving our Maintenance & Operations Key Performance Indicators or KPIs in enabling student success

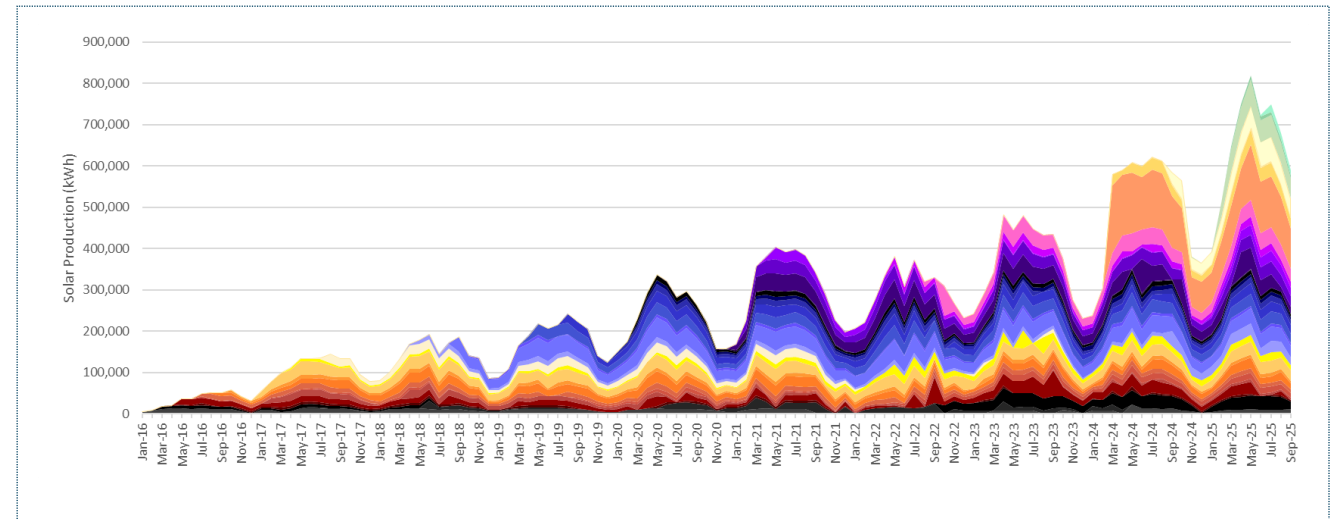
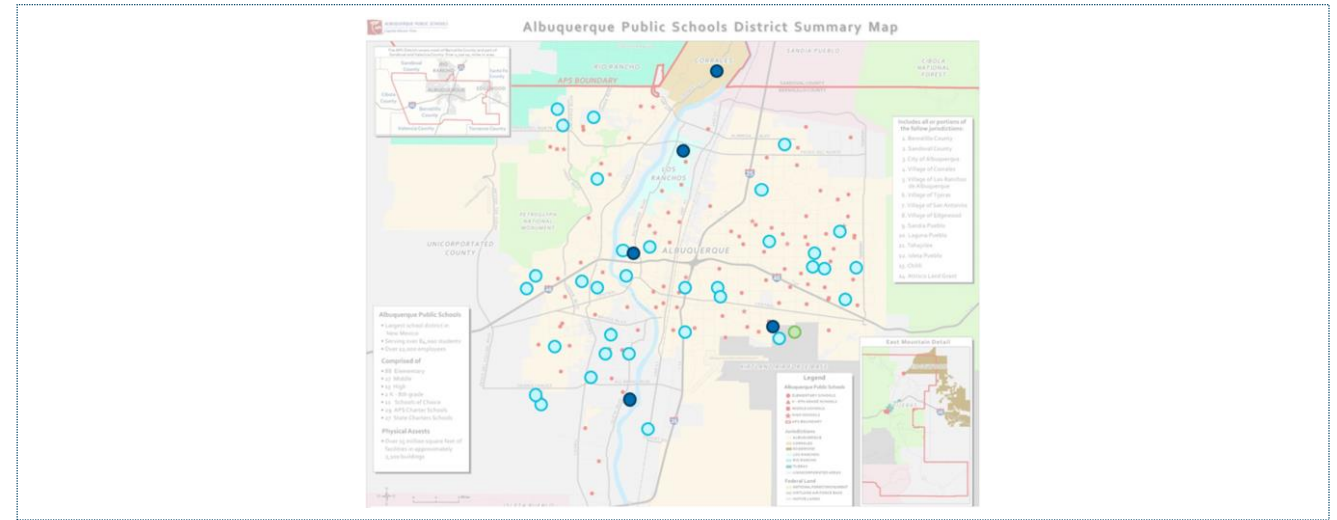
Cost Control



- APS Board of Education Conservation Policy EC-1 called for a 20% energy and water reduction over a 10-year period
- APS Maintenance & Operations manages 214 facilities, 1,117 connected IoT devices, 1,581 utility accounts across 17.4M square feet with 73,152 students
- We achieved our 20% reduction goal for electric and gas and we are slightly over goal in water. Despite ever increasing utility costs, our empirical savings over 10 years is \$3,062,553, on average \$306K per year
- In real time, we are notified immediately on our devices for water leaks, peak demand spikes, systems offline, systems running when unoccupied and sensors over threshold as defined by our benchmarks

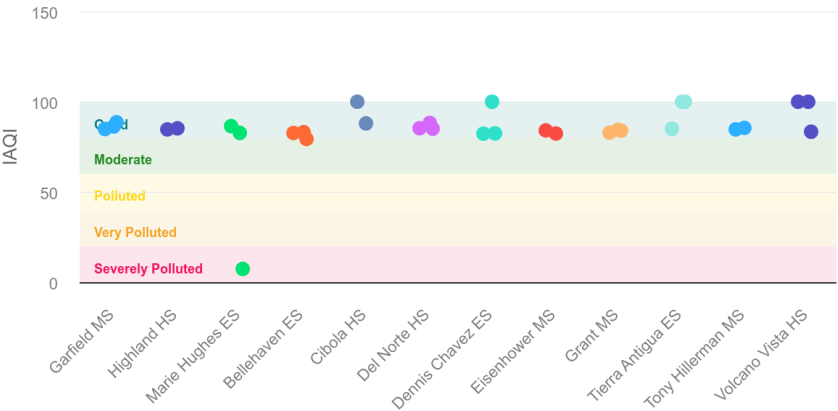
- Sustainability is a focus for the APS Maintenance and Operations team both in execution and planning for the future
- APS has increased our solar production to over 5 Megawatts of generation across 41 facilities. This has offset the energy equivalent of 310 gas powered passenger vehicles for 1 year. We are continuing to expand the district's solar footprint with five additional locations and one pending final design
- This school year APS will be launching 30 electric school buses into the district's transportation fleet. We will be measuring the savings and carbon offset performance of those busses closely
- We actively quantify Scope 1,2,3 emissions for the district live in our utility management software. This allows us to measure the district carbon reduction in parallel to our energy optimization efforts

Sustainability



Student Wellbeing

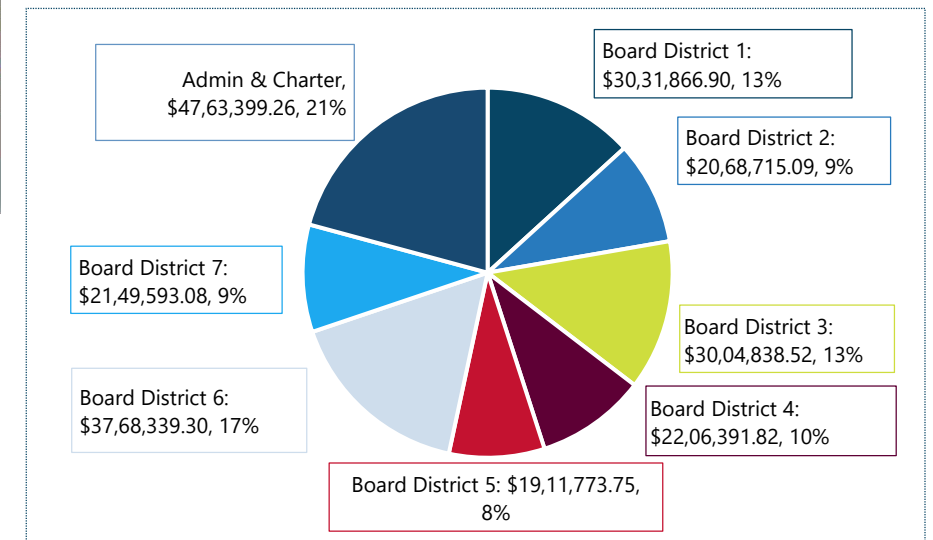
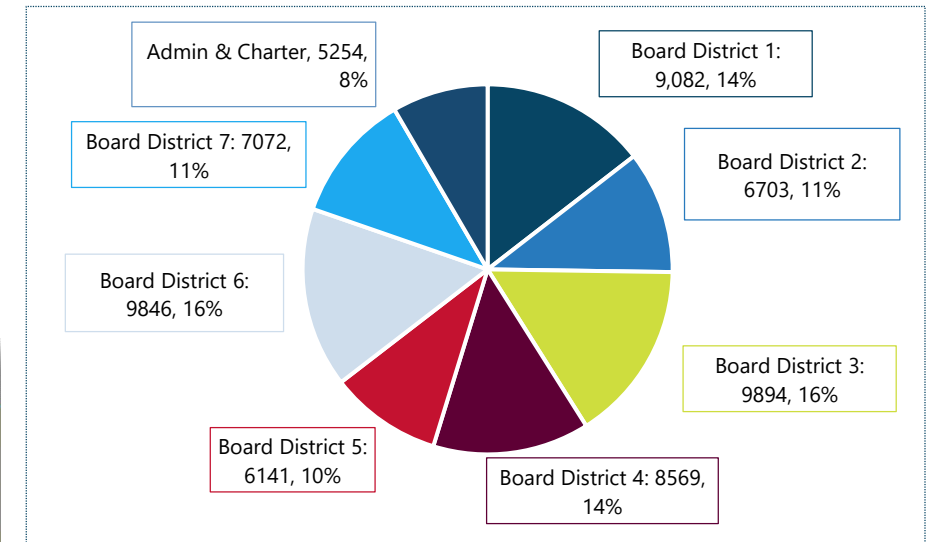
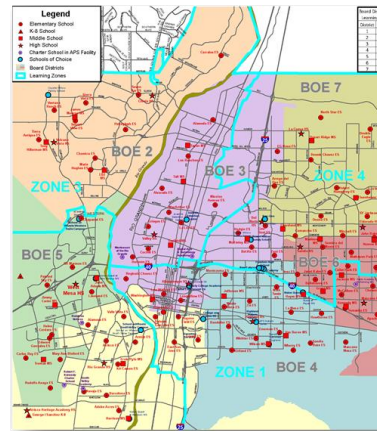
Live Indoor Air Quality Score



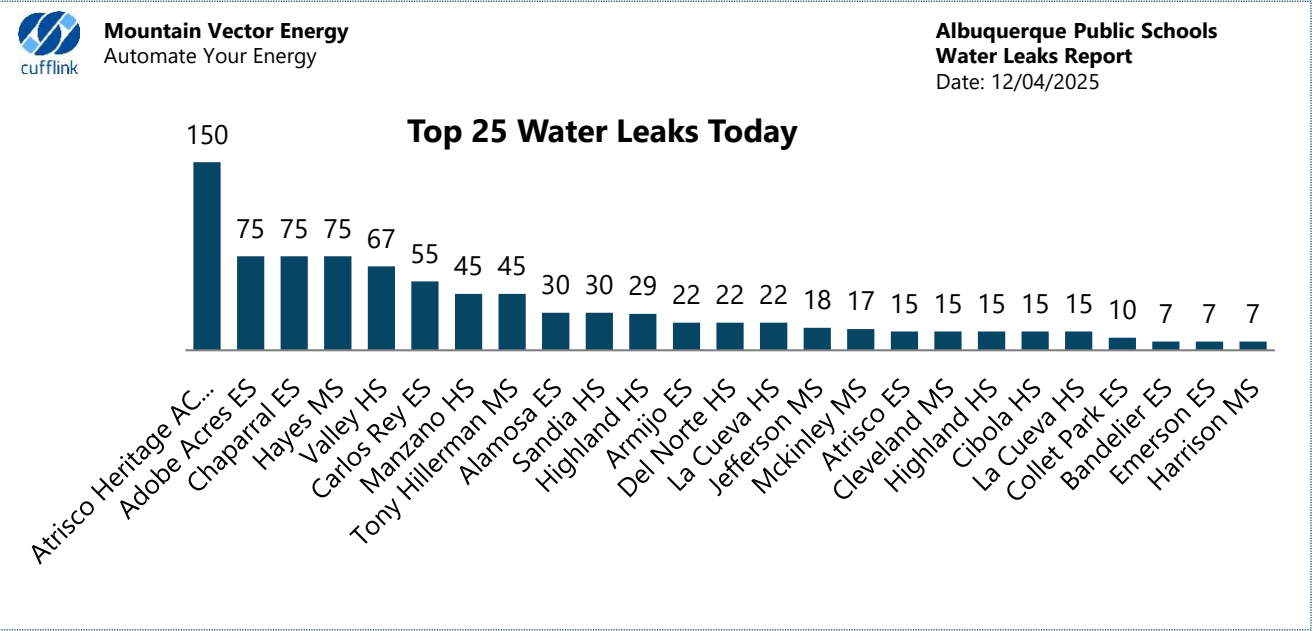
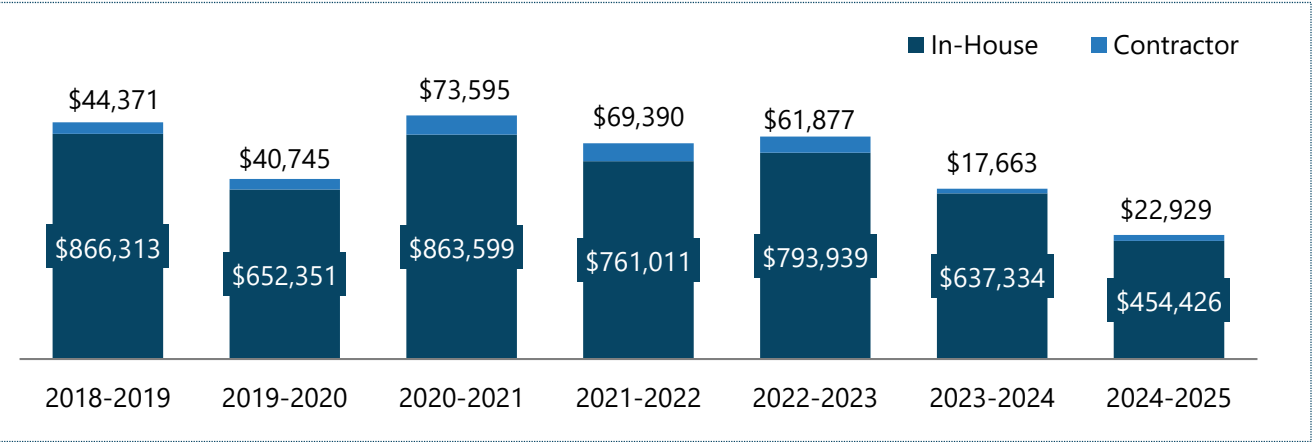
- Interacting with air quality in the classroom helps APS M&O deliver the best learning environments
- From particulates to CO2 to pollutants and noise, we can interact with the learning environment to ensure students are comfortable and in a healthy learning environment
- We are actively notified on our devices of air quality excursions in the classroom so that we can address issues quickly
- Additionally, we have utilized air exchange analyses on new construction and retrofits with safe traces, and we incorporate UV air purifiers in classrooms

District Representation

- M&O is leading by example in data-driven operations & transparent reporting with 62,561 work orders costing \$22.9M in the 24-25 school year
- We monitor our work by board district for equity across and fairness to ensure all student facility repairs are addressed
- We compare data such as work order quantity by district and the resulting spending. As our work and data shows, the board districts with the newer facilities experience less issues and need for repairs, ex: BOD2. The aging facilities that have been significantly remodeled also show less work required, ex: BOD 5



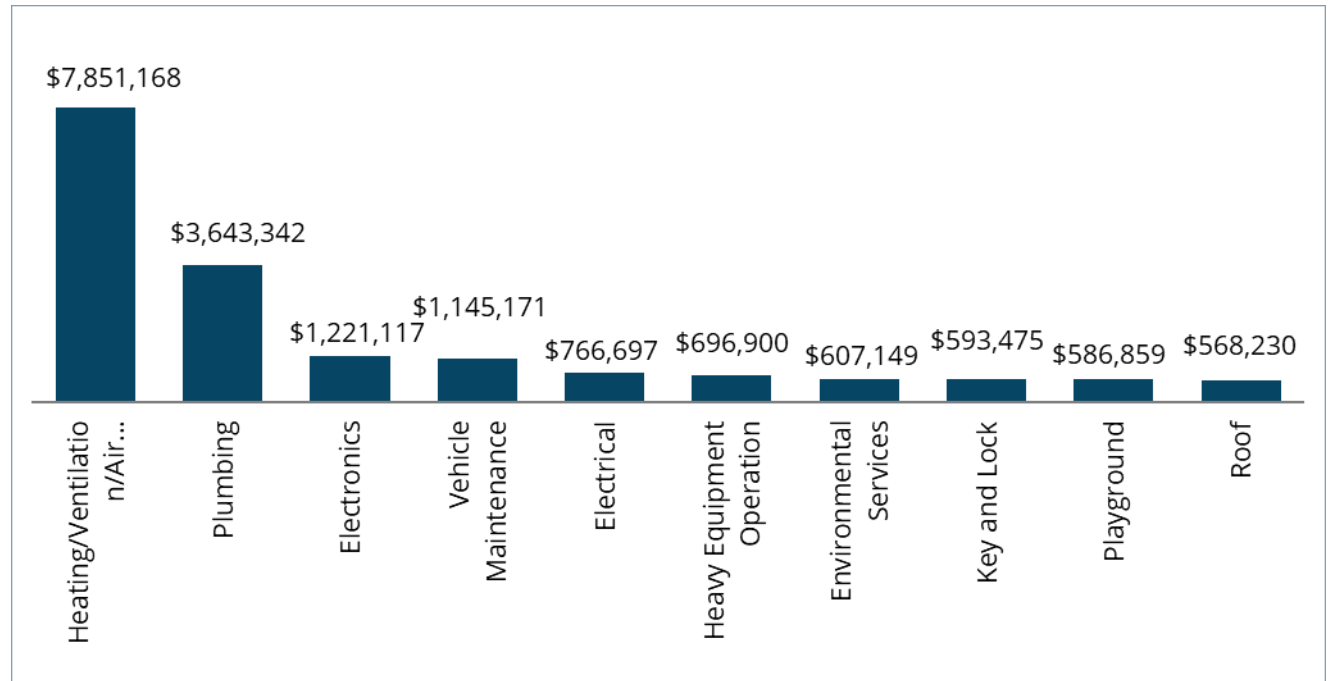
Mitigation & Prevention



- In 2022, we began replacing our irrigation controllers across our facilities. Since the completion of the controller replacements, contractor work order costs have been reduced by two thirds. Today, less than 10% of the total work order costs for the Irrigation Department are from work performed by contractors. In addition, total work order counts and costs for the Irrigation Department have been steadily decreasing in recent years
- Real time water leak detection enables APS to shift from reactive to proactive maintenance and problem-solving. Each time a water leak is detected, a notification is provided so the leak may be quickly addressed
- Irrigation controller upgrades plus real-time leak notifications enable faster resolution, fewer work orders and a saving of ~\$100k annually

- We share our [APS School Facilities Upgrades Dashboard](#) plan with the community so that they can see specific projects underway that support the health and wellbeing of our students and staff
- Over \$42 Million of ESSER and ARPA funding was deployed from 2023 to 2025 enabling the district to improve plumbing, HVAC and APS Health Clinics.
- John Dufay said, "With the injection of ESSER funds, M&O has been able to do far more improvements to the student learning environment in the last 3 years than with the standard annual budget allocation."
- The majority of M&O workorder spending continues to be associated with HVAC. With the bond approval, we look forward to begin replacing the highly problematic and intensive maintenance of inefficient evaporative coolers

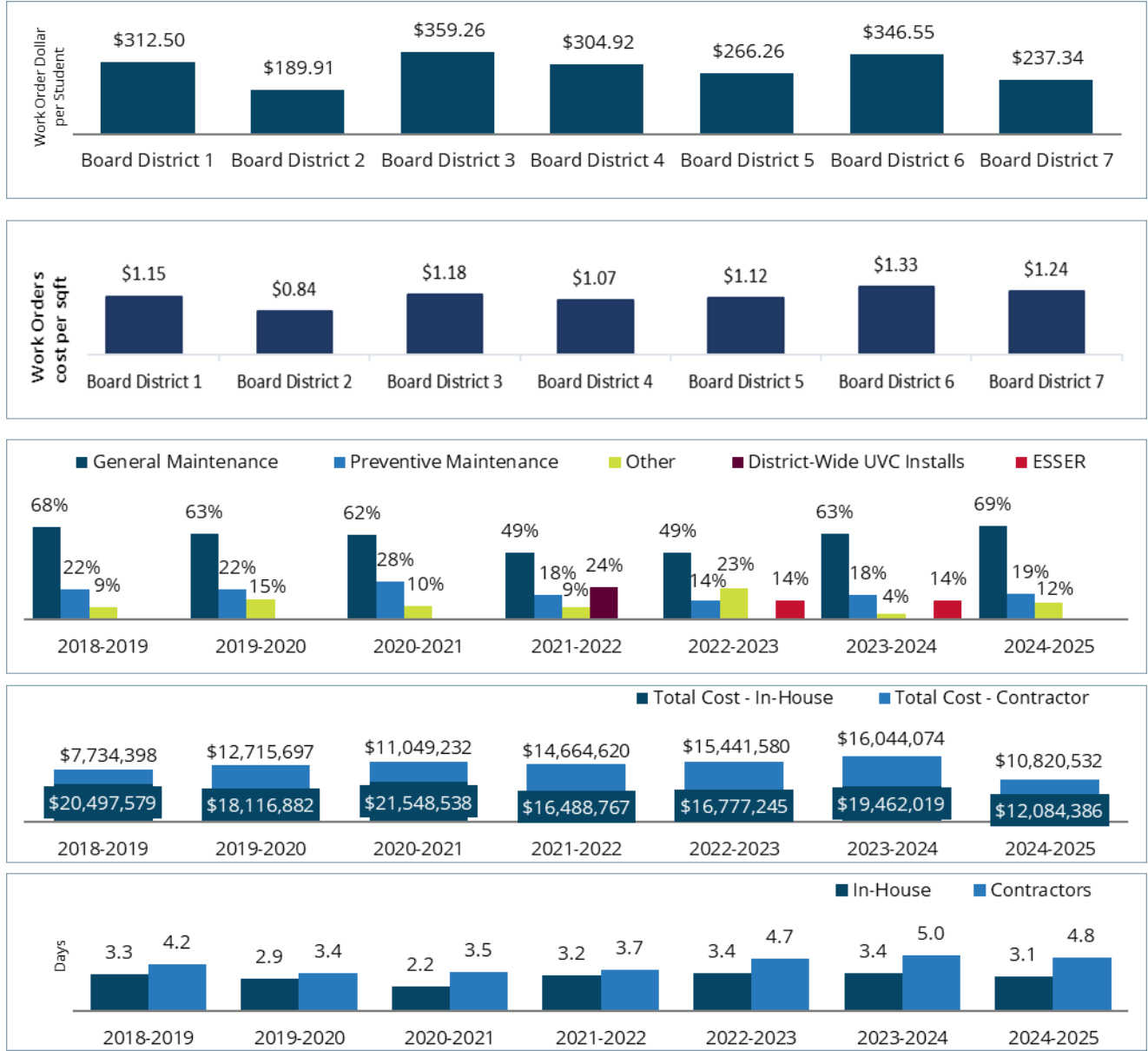
Building Healthy Environments



Total Work Orders Submitted 2024-2025	62,516
Closed Work Orders	58,408
Duplicate/Pending/Void/... Work Orders	4,153

Utilizing the data, in house maintenance work order completed in 3.1 days; contractor in 4.8 days

Additional KPIs



- M&O has a standard set of KPIs that are updated and monitored regularly. These indicators guide our work, as well as our planning
 - 2024-2025 work order spending per student per board district (does not include burden & overhead)
 - 2024-2025 work order spending per square foot per board district (does not include burden & overhead)
 - General maintenance, preventative maintenance and other important work order volumes
 - Total in house and contractor work order costs
 - Average in house and contractor work order days to complete