www.i-qlair.com

University Success Story

Our Client Had a Problem

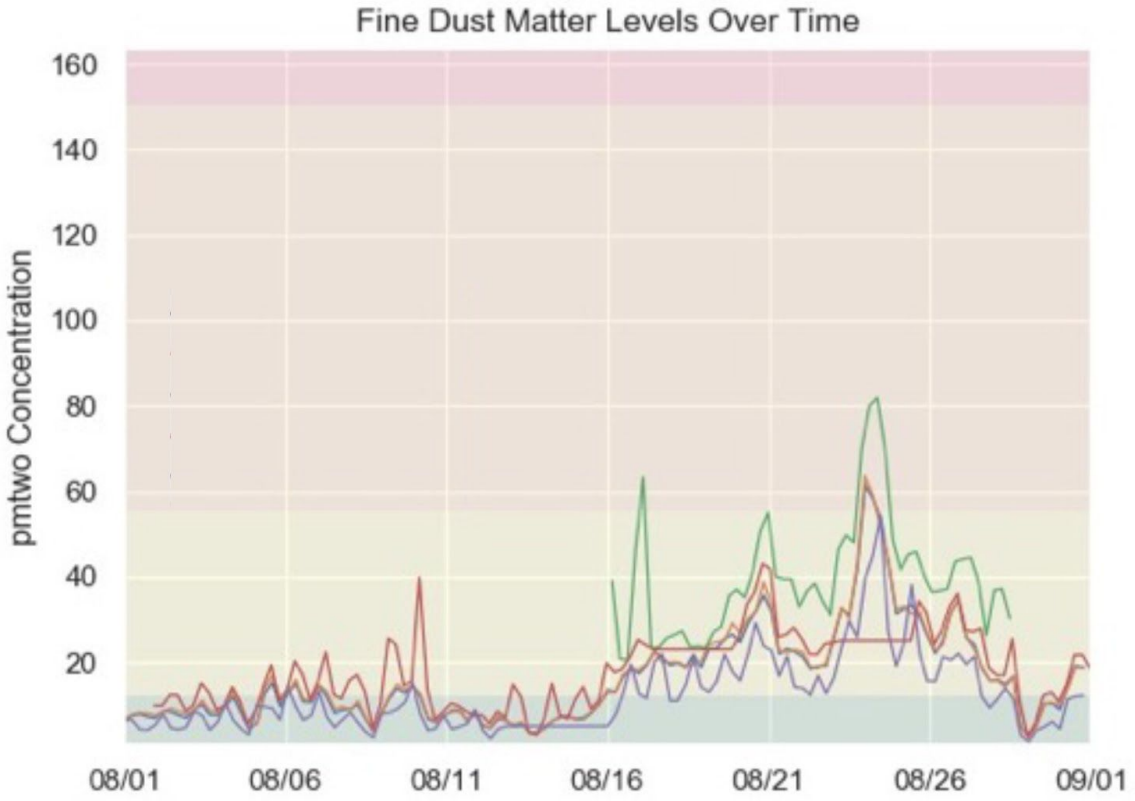
This West Coast University came to our team at qlair with a specific problem, **complaints of poor indoor air quality and ventilation within their athletic facility**. They were determined to focus their attention on green initiatives - from sustainability buildings in general, to energy savings, air quality, and overall health. They spoke with qlair to analyze their current air quality in the gym and studio area; where the weight room, activity rooms and training rooms were a high concern. We also included the conference room, common area, and arena for games and events in our study.

Solving the Problem

Through our discovery session, we determined that the University gym needed 8 air handling units to support the building. We also realized that there is no consistent schedule for managing these units. For example, in the weight room, fresh air was pumped in from 5am until 1am every day, without real knowledge of the actual air quality of the room. It was simply determined by “if the room smells, pump more fresh air into it.” This plan was simple but **wasting a lot of energy.**

We also discovered a wall of filters that are changed when the managers “see that it is dirty.” There was no ability to notice or change it based on a pressure drop, and no indication of when

the filters actually needed to be changed aside from seeing that the front was black and the back was white. This routine was creating an inconsistency with the true air quality of the rooms and the effectiveness of the filters.



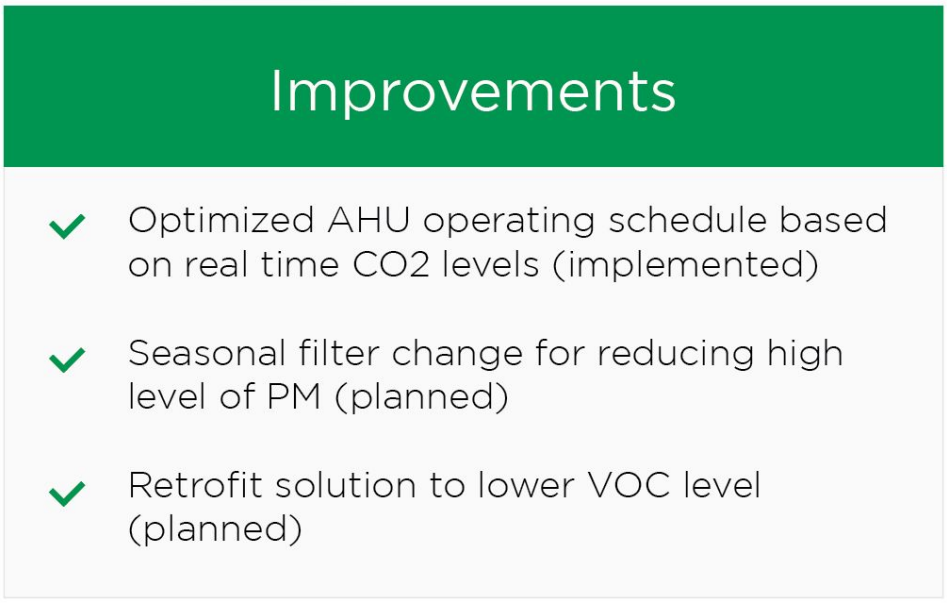
Exploring the rest of the site, we used the above data to see that there are spikes and peaks in the pollutants based on time of day, usage of the rooms, and more. However, the facility managers were still unable to know exactly what was going on, and how to fix it. They told us how many times gym members and other visitors would complain about air quality, smells, or other potential issues, but because there's no transparency with the data, all they can do is wait it out to resolve on its own.

Implementation and Results

After our assessment, we devised a plan. First, the weight room needed an improved schedule for pumping air in. We determined that fresh air being filtered into the room from 7 am until

11pm was plenty of time, and we could save energy this way. We also set up the **qlair app** to help the facility managers understand the spikes and peaks in chemicals in the room. With the app, they were able to read the data, and then receive information about actions to take to improve the issues themselves.

With qlair's ability to visualize air quality data, detect pressure drop across all the filters, and compare it to the energy consumption of the air handling unit (AHU), the University was back in control of their air quality and energy savings. They now know exactly when the pressure drop becomes an issue, and the correct time to change filters in order to avoid high energy consumption.



With qlair, the University is enjoying optimized HVAC control and indoor air quality in their recreation center. They are able to run their HVAC system fewer hours per day, increase the life of their air filters, and save money and energy. The result for the entire year? **Over $7,000 saved in energy costs in their athletic facility alone, with a newfound strategy to ensure proper ventilation and a comfortable environment for tenants.**