Security Cameras

Safety and Security are major concerns of Water Districts and Authorities as the threat of aggression, violence, criminal activity, and sabotage seems to be on the rise locally and nationally. What measures can districts take to help prevent actions threatening the safety of staff and of water supplies? Security cameras are one measure that may help depending on how they are employed. Most districts/authorities have at least some cameras, usually on the perimeter of their buildings. To be effective, security cameras should meet placement, performance, and monitoring considerations that we'll discuss in this article.

Security cameras should be placed where they will have both preventive and observational effectiveness. The preventive value may be that people who know they are being observed may not continue actions that might be criminal or trespassing. A camera can also provide a record of an event that can be helpful in criminal prosecution. A camera's most effective characteristic is its ability to detect ongoing actions and help employees take action to intervene. To be most effective, the activity must be seen in real time.

Many of the camera systems currently in use merely record and store what they record. This archive has value when reviewing an event to furnish identifying information to police. The video record should have a date and time stamp, reference to a location or way to identify where the observation was made. Image storage should also be long enough to be useful. Systems that re-use tape or delete images after less than 24 hours have limited usefulness. Newer systems now store images digitally allowing for longer retention and easier recall.

Most systems in use have real-time monitoring capability that often goes unused. A display of screens monitoring the feed from several cameras at a member site was found on top of a hot water heater in a locked closet. Another recent find was in an office that was only occupied for less than an hour a day. Neither of these setups afforded an ability to see something in real time.

Some large and sophisticated security operations have monitoring rooms that are manned 24 hours a day to protect numerous high traffic locations, high value equipment, or areas vulnerable to vandalism or worse. This is an expensive, labor-intensive process that is not possible for all districts to employ. The Fund recommends that monitoring stations be set up in reception or fully staffed office areas where someone can see the monitors in real time. We don't suggest that watching the monitors full time is someone's job, just that they be able to see them and be able to notice people approaching their location or exhibiting signs of questionable activity at or near district/authority property.

When potentially dangerous activity is noticed, the monitoring personnel can notify others of the event and initiate intervention or call 911, depending on the circumstances.

Camera systems should also have effective connectivity to monitoring stations and central recording locations. Some systems now allow individual camera control that will focus, magnify images, track, and illuminate a subject. This feature can be effective in deterring some subjects from continuing their threatening actions.

As we have seen with the proliferation of videos on the internet, the quality of camera feed has improved tremendously over the last few years. Image clarity, color, and low light capability have all improved and as with most technology, the cost of cameras has also come down. The expense may have dropped; however, the complexity of the overall system has increased with the new capabilities. Another intricacy may be introduced with the inclusion of artificial intelligence in the operating system. This could improve function, notifications, and the evaluation of images.

The Fund recommends seeking professional consultants and contractors for the choice of systems and installation process. With any new and complex system, implementation should include comprehensive training and ongoing support as the system is put into use. A new system may be able to incorporate existing cameras, integrate fire and intrusion alarms, support emergency alert capability, and have access control communications to improve the interoperability. Make sure that any request for proposals includes current ANSI standards for architectural graphics in the design of the system and incorporates measures to decrease false alarms.

(American National Standards Institute [ANSI]standards can be found at securityindustry.org)