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Hospital Savings Plan:

Water Cost Savings and Emergency Operations

Readiness at a Reduced Rate

The Filtration System Pay-Back Model

Hospitals are perhaps the most critical facilities in any municipality at any time, especially during community emergencies. The critical nature of hospital operations is underscored by the requirement of credentialing organizations calling for hospitals to have a credible, implementable plan to be able to remain open when most or all other local businesses cannot ... and to be able to do so for up to 96 hours.

The cost of having emergency systems in place to supply the massive water demands of a facility's industrial operations can be daunting, especially since such emergencies occur only rarely. Onsite Water Management (OWM) was faced with this reality as it designed and implemented 64 emergency systems within the Virginia's hospital system (see "Water Resiliency - Emergency Water Supply Systems").

What we learned – and, quite frankly, what we expected to learn – was that the systems could and should be designed to pay for themselves over time ... and then help hospitals realize real savings following that pay-back period. And why not? Water for facility industrial uses, such as cooling tower, boiler, and chiller make-up feed, is a necessary operational requirement. And therefore a necessary expense.

The keys to unlocking system payback are twofold: designing systems specifically for continuous operation and finding available alternative water sources. The diagram provided suggests several potential alternative water sources. In fact, several of the hospitals at which OWM installed emergency systems (and where the alternative water supply required little filtration) use those systems in continuous operation, thereby realizing the additional benefit of water cost savings. Consider that replacing just ten (10) gallons per minute with on-site and available water replaces 5,256,000 gallons/year. In a locality charging \$8.00/1000 gallons for water and sanitary sewer, this amounts to annual savings of \$42,048.



Facilities that implement such a system, operating on a daily basis, will also satisfy the emergency water operation requirement of hospital credentialing organizations. Most importantly however, facilities that have this type of system will be able to maintain critical operations during times when the local community needs its hospital the most.