ONSITE WATER MANAGEMENT

Emergency Water Supply System Presentation

For

Children's Hospital New Orleans
LCMC Health

June 11, 2021

Company Overview

Onsite Water designs and installs **innovative stand-alone industrial & potable water systems** that ensure an uninterrupted supply of water during municipal water outages due to natural disasters, municipal infrastructure failures and other unforeseen events.

Although our systems are adaptable to any industrial setting they are of particular value to healthcare facilities where continuity of supply and by extension patient care is critical.

Our Healthcare Experience

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Onsite Water has designed and installed over 75 major systems in the Southeastern United States.

Our experience extends from Level I Trauma Centers to Community Hospitals.

Some of Our Healthcare Clients

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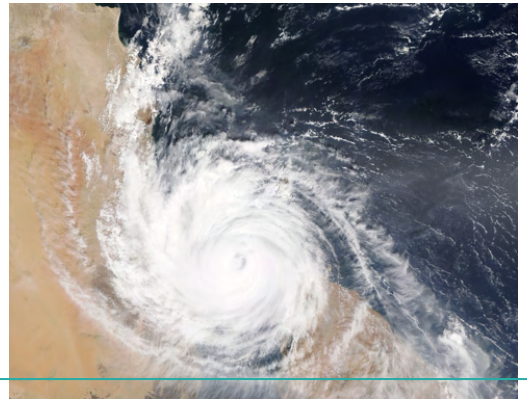
Protecting Your Water Supply in a Healthcare Facility

WHY? To ensure continuity of supply and patient care during:

Natural Disasters

Hurricanes/Tornadoes



Municipal Infrastructure Failures

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Natural Disasters

“The most expensive hospital is the one that fails.”

2008-2009 World Disaster Reduction Campaign

HURRICANE SANDY

“third-world conditions, with no hot water, no lab or radiology services and pails of water hauled up the stairs to use for flushing toilets…“

by Alan Aviles, the president of the Health and Hospitals Corporation, which runs Bellevue.

Source: New York Times, October 31, 2012

NOAA expects 13 to 20 named storms during the 2021 season, including 6 to 10 hurricanes.

Natural Disasters

Excerpts from the Joint Commission "Lessons Learned"

"People will always gravitate to the local hospital during a community crisis."

"For the most part, hospitals were able to quickly obtain water from various public and private sources. However, the challenge came when trying to figure out how to get water from a tanker truck, into their piping system, and up to patient care areas throughout the hospital."

"Whether it was a hurricane, power outage, tornado or act of terrorism, when in need people will follow the blue "H" sign looking for warmth, shelter, food, electricity or in this case, water. Disaster plans need to reflect this inevitability."

Municipal Infrastructure Failure

Natural Disasters Are NOT the Biggest Threat
Aging Infrastructure Is Far More Often the Cause of Outages

“… an average **700 water main breaks** nationwide that experts say occur **each day.**”

www.cnn.com/2011/US/01/20/water.main.infrastructure/

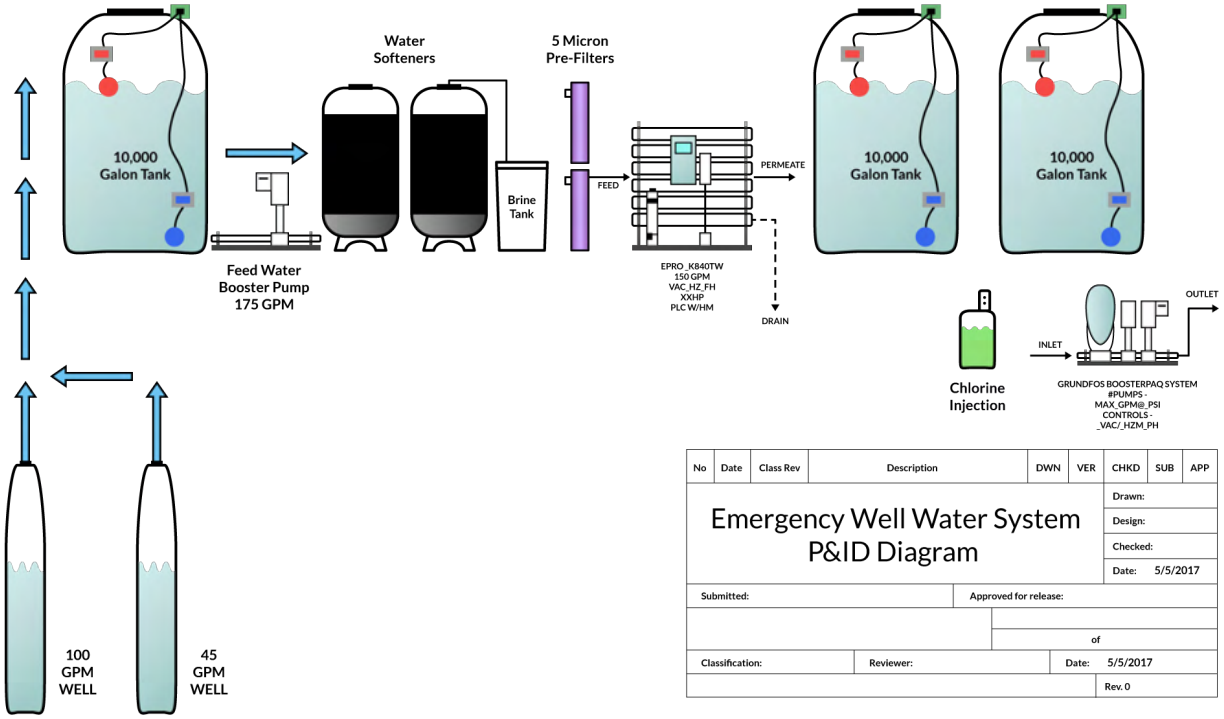
Municipal Infrastructure Failure

“Southside Regional Medical Center in Petersburg, VA is without city water, per a hospital spokesperson. The City notified hospital officials on Monday.

“An Onsite Water Emergency Water Supply System was utilized at SRMC during this crisis allowing the hospital to operate and serve the public during the water outage.”

How Do Our Systems Work?

Example of a Well Based System



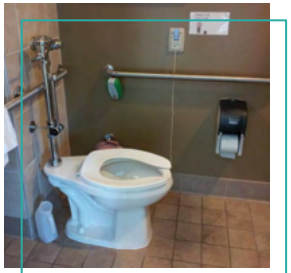
No	Date	Class Rev	Description	DWN	VER	CHKD	SUB	APP
			Emergency Well Water System P&ID Diagram			Drawn:		
						Design:		
						Checked:		
						Date: 5/5/2017		
Submitted:			Approved for release:					
						of		
Classification:			Reviewer:			Date: 5/5/2017		
						Rev. 0		

Potential Applications

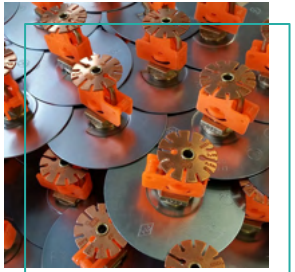
Evaporative Cooling Towers

Decontamination Station

Laundry



Toilet Flushing Station

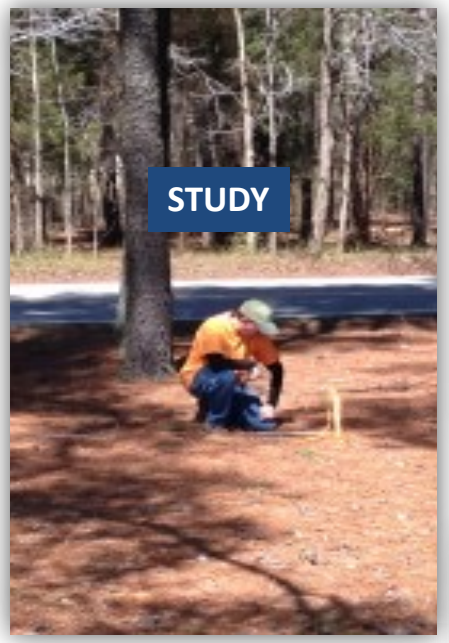


Fire Suppression

Equipment Sterilization

Boilers

Our Exclusive Process



OWM will complete a comprehensive Water Resource Needs Assessment.

OWM not only develops a design to incorporate all potential new viable water sources, including well development, but we listen to our clients and provide aesthetically pleasing designs to fit your unique facility space.

From start to finish, we are committed to remaining engaged in the installation process to ensure your system meets your needs.

OWM is committed to keep your system running optimally by providing contracted maintenance services.

Example Project

CAPE FEAR VALLEY HEALTH

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Cape Fear Valley Medical Center, located in Fayetteville, North Carolina, is the robust, 483 bed regional medical center of Cape Fear Valley Health.

In October 2016, Hurricane Matthew hit southeastern North Carolina and knocked out all water pressure to the medical center for nearly a week. Bottled water was brought in by the truckloads and toilets had to be flushed by hauling buckets of water.

In 2017, Onsite Water began its exclusive process to study, design, install, and maintain (SDIM) an emergency water supply system (EWSS) to provide the complete water needs of the hospital during emergency outages. The installed system is comprised of multiple wells, filtration equipment, disinfection equipment and over 20,000 gallons of potable water storage. It can provide water to the hospital at over 200 gallons a minute.

“We’re really excited about the new system,” said James Bullard *(pictured)*, Cape Fear Valley Health’s Emergency Management Coordinator, “especially since all the water will be potable.”

BladenOnline.com

Emergency Water Supply System vs. Contracted Tankers

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Advantages

- simple sign up

Disadvantages

- expensive when needed, potentially millions of dollars
- not reliable because you are competing with others for supply and during natural disasters roads may not be open and accessible
- even if you get the water to the hospital you still have to get it into your system

* In 2016 as a result of Hurricane Matthew a well known hospital in North Carolina spent almost $1.5 million in tanker water. Water still had to be manhandled into flushing toilets. The truck almost did not get there because of road conditions.

Onsite Water Offers Both Fixed Site And Mobile Solutions

Advantages of Fixed Site Installations

- Lower Cost compared to Mobile Systems.
- Always Ready- Just turn it on.
- Fast ROI if you choose to use your On-Site water system to regularly supplement your regular water supply.

Advantages of Mobile Solutions

- May be a better choice for facilities with multiple or satellite locations.
- Ideal for hospitals with minimal space for permanent system.

Water Savings Agreement

Hospital agrees to use EWSS for industrial (non-potable) water for determined percentage of time (example, 90% of time)

Water use from EWSS is metered to determine quantity of water saved

Water Savings = Quantity of water saved times water/sewer rate in effect

Hospital pays OW agreed percentage of water savings on monthly basis

OW monitors system remotely and provides all needed maintenance and maintenance instructions

Hospital designates staff member(s) to receive maintenance instructions for minor issues

Water Savings Agreement (WSA) FAQs

Q - What is a Water Savings Agreement (WSA)?

A – A WSA is an agreement between OWM and a client whereby OWM installs an Emergency Water Supply System (EWSS) at no cost to the client. The client operates the EWSS for industrial water on a continuous basis and pays OWM a percentage of the water cost savings for a defined period of time.

Q – How are water cost savings determined?

A – The industrial water processed through the EWSS, which reduces the amount of municipal water used by the client, is metered and multiplied by the current municipal combined water and sewer rate.

Q – What are client requirements to enter into a WSA?

A – Clients must have a well located in reasonable proximity to the space selected for the EWSS equipment. Client must also provide OWM with historical water usage and billing data, requested plumbing and electrical system drawings and cooperate during OWM's Study and Design phases.

Q – What are the upfront capital expenses to the client?

A – If the client has a suitable well, there are no upfront capital costs to the client.

Q - Who bears the development risk of installing the EWSS?

OWM bears all the development risk including permitting requirements, construction costs, and system performance.

Q – Who is responsible for operating, monitoring and maintaining the EWSS?

A – The client is responsible for operating the EWSS on a day-to-day basis. OWM is responsible for monitoring and maintaining (both parts and labor) the system for the term of the WSA. The client must designate an employee(s) to perform routine checks and procedures (including water sampling) as instructed by OWM. The client may enter into a Monitoring and Maintenance Agreement with OWM after the term of the WSA at the cost specified in the WSA.

Q – What are the costs to the client to operate the EWSS on a day-to-day basis?

A – Other than a minimal amount of staff time, the only additional cost is for power used by the EWSS. While it is not feasible to calculate the exact additional power costs, OWM will estimate the amount for the client's specific EWSS prior to providing the client with the WSA.

Q – What effect will the use of the EWSS water have on my industrial equipment and chemical treatment program?

OWM will design the EWSS to deliver water compliant with the intended use, similar or better than the municipal water source. OWM can work directly with your chemical program vendor to ensure maximum system efficiency.

Q – What happens if the system cannot be operated for a period of time or the municipal water system changes their billing structure through no-fault of OWM or the client?

A - In such situations, the term of the WSA will be adjusted to provide for a substantially similar financial outcome for both parties and in no event will the client pay OWM more than the water cost savings.

Summary & Conclusion

What can an Onsite Water Emergency Water Supply System do for your facility?

- Provide you with a **100% reliable source** of industrial and potable water when municipal systems fail ensuring continued operations.
- Our systems are **cost effective and always ready.**
- We offer fixed site and mobile options.
- Our systems can actually **save you money.**

In today's environment of increasingly severe weather and aging infrastructure it's less a question of if but when will your municipal water supply will fail.

Can your facility afford a shut down during normal operating loads let alone during a catastrophic event? Would the community you serve be able to cope with the shutdown of their principal healthcare facility during a natural disaster or other general crisis?

Onsite Water has the solution.

Contact us today to learn more.

Contacts

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