

# Technology Statement



**ZAPS Technologies produces the most advanced water monitoring instruments in the world.** We provide rugged, networkable water monitoring solutions capable of generating highly accurate, real-time data for a broad spectrum of specific parameters. Our systems use a unique Hybrid Multispectral Analysis (HMA) optical approach developed by our founder and Chief Science Officer Dr. Gary Klinkhammer to characterize chemical bonding and molecular structure. Our instruments are precise, reliable, and able to perform these analyses continually at extremely low cost and with great efficiency. This breakthrough technology disrupts the paradigm of conventional chemistry-based testing processes by analyzing the entire makeup of the water being monitored, rather than looking only for a narrow range of compounds. By using high intensity light, any compound contaminating the water can trigger a warning virtually instantly. With access to this real-time and immediate data our customers enjoy security and peace of mind that comes with being able to detect and respond to critical events with safe, informed, effective, and even automated solutions on an ongoing basis.

## ZAPS Technologies - What sets us apart from conventional water monitoring methods?

**Accuracy and Security** - Our technology combines monitoring and event detection to prevent catastrophic events as well as provide ongoing information necessary to make water safer and cleaner all the time. Testing is purely optical and involves no reagents, no filtering and no alteration of the sample, in turn eliminating chemical maintenance, human error, and endurance issues.

**Reliability** - Our instruments are built for long-term use in harsh environments, indoors or out. All measurements are made using the same optical probe, eliminating maintenance required to sustain a multi-probe network, while also eliminating cross-correlation issues between parameters inherent in multi-probe systems. Fully automated self-cleanings and self-calibrations maintain data quality without human intervention over longer periods of time, up to one year when monitoring clean water.

**Speed** - ZAPS' proprietary methods allow for instant identification of bacterial compounds including E. coli and other biochemical agents, versus conventional testing. Measurements are made directly, not by proxy methods that can take days. ZAPS devices conduct millions of automated measurements each day, thereby reducing contamination event warnings to minutes.

**Efficiency and Cost Savings** - A typical LiquID station requires nominal operating cost equivalent to the energy consumption of a 100 watt incandescent bulb, versus prohibitively expensive conventional chemistry-based processes which provide less monitoring.

**Flexibility and Automation** - Our 21st century technology is designed to continuously monitor any water supply before, during, and after treatment. Programmable alerts allow real-time broadcasting of events to individuals via text message, email, or upload to an existing warning system. Further, devices can independently initiate process responses, e.g. to shut off pumps or switch intake valves.

**Usability** - Our customers enjoy secure access to real-time and historical data through a web-user interface via any Internet connected device and/or through a users' local network. Familiar computer interface enables devices to be managed by existing water plant personnel with just two hours of training.

**Continuous monitoring to protect your water. ZAPS Technologies. Detect. Respond.**

ZAPS Technologies, Inc. - 2016

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