



AMERICAN WATER SOLUTIONS LLC

Introducing the **ISOS™**

Intelligent Storage and Optimization System

Mitigate Wastewater Overflow Frequency and Duration!

Save Energy!



The AWS ISOS™ incorporates high quality microprocessor based components from ACT Inc. for reliability and durability. Our systems provide a touchpad and display for easy operator interface.

Minimize Overflows!

The patent pending AWS ISOS™ Intelligent Storage and Optimization System has been developed for the wastewater industry to cost effectively utilize available collection system storage to mitigate occurrence of unnecessary collection system overflows. Additionally, the ISOS™ can provide optimum energy usage and pumping efficiency for pump stations connected with a common manifold.

AWS and AWSE utilize state of the art sewer modeling software and techniques to develop critical operating thresholds that take advantage of available system storage. With local pump station control and the robust ACT communications data hopper, ISOS™ can communicate with most any existing SCADA system in virtually any communication format to immediately signal pump station status or trouble. This affords crucial improvements in response time for both repairs and bypass pumping for maintenance crews. Under final development and pilot testing now, the ISOS™ is scheduled for release in spring 2008.

<u>Conventional Systems</u>	<u>AWS ISOS™</u>
Typical PS's have independent wet well level control without consideration of upstream PS flow patterns, rates or downstream PS impacts.	Master control for downstream PS communicates its status to other PS's to intelligently alter upstream PS control for maximum pump efficiency and use of system storage.
Independent manifold pump control doesn't consider changes in manifold pressures which can drastically affect pump efficiencies and runtimes.	Synchronized pumping between PS's on common manifolds allows optimum energy usage and efficiency, reducing pump run times and mechanical wear.
Typical PS's do not communicate with other PS's in collection system to manage overall collection system storage volumes relative to flow.	Communication between PS's allows optimum changes in local control to best utilize available system storage thereby minimizing occurrence of unnecessary overflows.
Typical indication of high alarm is via PS audio and/or visual alarm after reaching predetermined wet well level. No communication w/ SCADA.	Downstream PS problems can be detected and communicated immediately to upstream PS's and available SCADA to alter upstream local PS control buying crucial time for pump repair and bypass pumping.

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