TOTAL DYNAMIC STORAGE



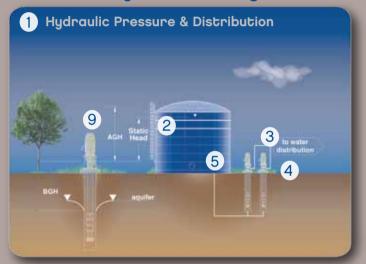
Total Dynamic Storage[™] is a pumped storage solution that offers a method for providing daily storage and system pressures for your customers.

The Total Dynamic Storage[™] solution utilizes:

- A low maintenance, expandable ground storage tank
- Engineer-applied pumps coupled with emergency power
- Instrumentation control to meet the daily and peak water demands
 - of your system while also providing constant pressure

Total Dynamic Storage is a method of meeting daily water system demands by utilizing a ground storage tank and achieving the required gradient/pressure zone through the application of energy head or pump power. Using expandable ground storage tanks, pumps and emergency power, water systems can utilize Total Dynamic Storage[™] to meet storage needs today, tomorrow and into the future - without the construction of an elevated tank, future tank painting expense and the need for an expanded footprint.

How Total Dynamic Storage Works:

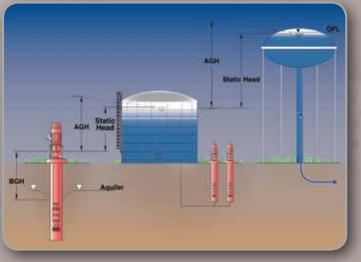


- Total Dynamic Storage[™] (TDS) System EXPANDABLE low-maintenance tank, variable flow pump(s), generator with automatic transfer switch, electrical and SCADA.
- 2. <u>Expandable Tank</u> Low-maintenance tank designed to meet today's storage requirements and have the capability for future expansion with NO increase in footprint, no requirement for future painting and a minimal capital cost.
- 3. <u>Variable Flow Control</u> Using multiple pumps controlled by variable frequency drives, TDS incorporates a pumping solution to meet the varying flows during low-, average- and peak-demand periods.
- 4. <u>Constant Pressure</u> By maintaining control of the system with variable flow pumps, the TDS system can maintain a consistent and steady pressure in the distribution system while working with existing tanks to compliment current capabilities.
- Quality By building only the storage required to meet the needs of the system TODAY, the tank can be sized to maintain the necessary turnover of water in storage and reduce the water quality issues related to age of water in the distribution system.

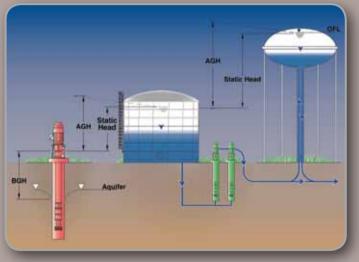


- 6. <u>Static System</u> In a fixed overflow system (e.g. elevated tank), pressure variances occur as the level of water in the tank changes. With a TDS System operating in a fixed overflow system, the operator can allow their existing tank(s) to properly cycle while knowing the availability of additional ground storage to meet demands through the variable flow control pumps.
- 7. Quality in Existing Tanks Age of water and temperature are major components that lead to the formation of disinfection by-products (DBP) in drinking water. With the TDS System, cycling of the existing tanks can be achieved without the fear of losing pressure in the distribution system. Reducing the age of water in existing tank(s) reduces formation of DBP's.
- Maintenance of Static Storage During the long down-time required to fully maintain/refurbish a static storage tank (e.g. multi-leg elevated), TDS can operate as a constant pressure system. Flow and pressure demands of the distribution system will be met through ground storage and variable flow control pumps.
- <u>Electrical</u> Reduce horsepower of your source (e.g. well motor) by pumping to a ground storage tank and removing the above ground head. Distribution head is achieved by smaller and more efficient pumps. With the ability to vary flows to meet demand, electrical cost and demand charges can be reduced.

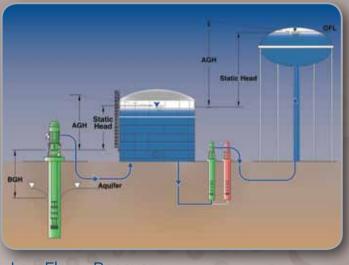
Total Dynamic Storage[™] Operating Cycles:





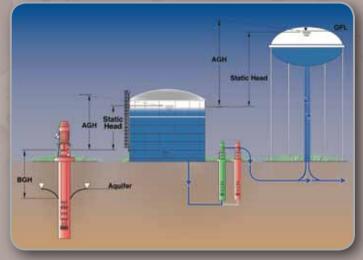


Peak Demand • Multiple Pumps / Source

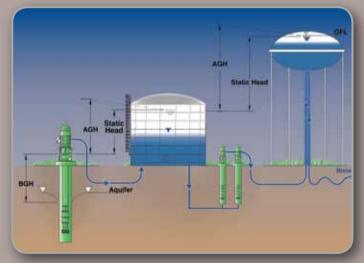


Low Flow • Recovery

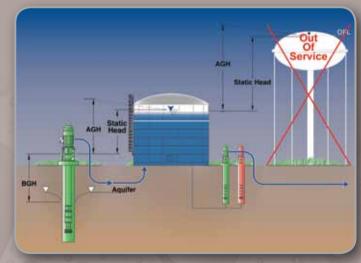
= Water Level



Normal Demand • TDS Just Initiated



Peak Demand Period • Recovery





= Pump in Operation

= Pump out of Operation

Key Total Dynamic Storage[™] System Benefits

- 1. Optimized water storage and flow
- 2. Expandability with no additional footprint needed
- 3. Utilizes sound engineering principles
- 4. Adaptive to system needs for flexibility in operations
- 5. Improvement in Water Quality (Quick Tank Turnover)
- 6. Low maintenance
- 7. Treatment options easily achieved
- 8. Economical
- 9. All components sold and serviced from a single source
- 10. A Total Dynamic Solution!



COMPARING THE DEFINITION OF DYNAMIC VS STATIC

DYNAMIC

dy∙nam·ic

- 1. Of or relating to energy or to objects in motion.
- 2. Characterized by continuous change, activity, or progress.

dy nam ic

- 1. Characterized by energy or effective action.
- 2. Physics.
- a. pertaining to force or power.
- b. pertaining to force related to motion.

adjective

1. Characterized by constant change, activity, or progress

STATIC

adjective

- 1. Lacking in movement, action, or change, especially in a way viewed as undesirable or uninteresting.
- 2. (of a process or variable) Not able to be changed during a set period, for example, while a program is running.
- 3. Concerned with bodies at rest or forces in equilibrium.

Economic challenges, ever-increasing need for capital improvements and growing governmental regulations are requiring municipalities and utilities to take prudent and necessary steps to provide customers water system needs while maintaining fiscal responsibility. When it comes to planning for additional water storage in your system, consider a solution that can meet all financial, regulatory and engineering challenges - Total Dynamic Storage[™].

SOUTHEASTERN TANK

Southeastern Tank, Inc. | 615-466-5220 | 60 Vesta Road | Lebanon, TN 37090 www.southeasterntank.com | info@southeasterntank.com