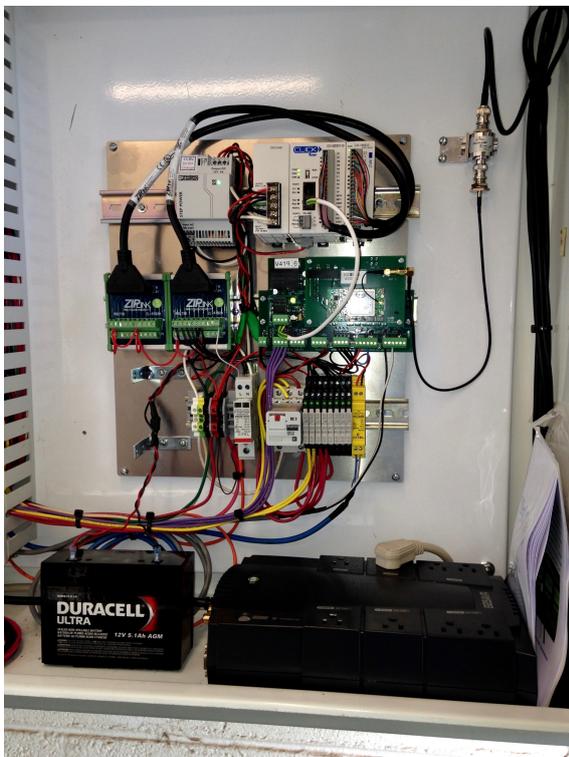


White Deer, TX

Flexible Chlorine Injection Pacing
Using **Cloud-Based SCADA**

The City of White Deer, Texas is located in North Texas and serves approximately 500 water taps.



The water distribution operation includes a flow-pacing chlorine injection valve. For the past 10 years, the utility had a custom-programmed, radio-based SCADA system in place and it worked the way the operators needed it to. After several years, the radio communications became unreliable and the system experienced several connection drop-outs. The system relied on constant connectivity to ensure functional controls and proper chlorine injection rates. On the rare occasion that their SCADA system sent alarms, the utility operators were required to drive out to one of the sites where the local HMI screen was to determine what the problems were. Only after that could they determine what tools or personnel were needed to correct the problem.

Because of this development, the City of White Deer went through the process of seeking alternative technologies to facilitate their needs. One of the key criteria of this search was that the SCADA vendor would be able to handle controlling the chlorine injection system that was in place so the utility did not have to completely replace the existing infrastructure. The City of White Deer examined vendors from the radio and cellular backgrounds and determine that High Tide Technologies, a cloud-based SCADA system, would fit their needs as well as their budget

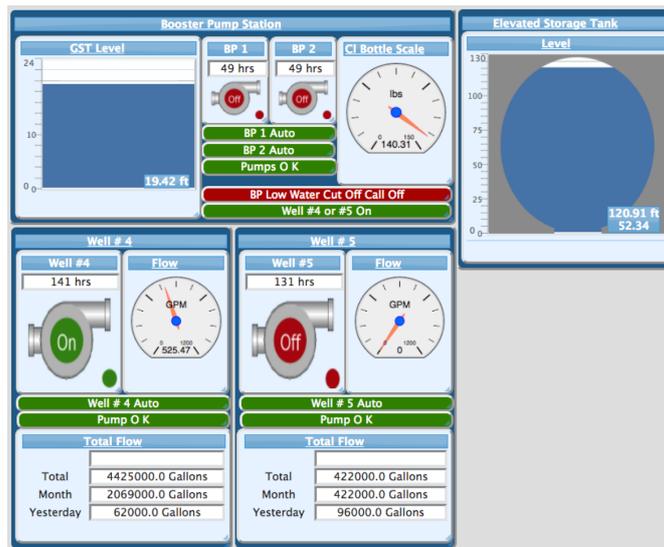


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- Bryan Hughes, an installer for Texas distributor DistributionNOW

The system needed to function as follows: a 4-20ma analog output signal is used to pace the chlorine injection. The injection rate needs to be paced proportionally based on total flow from all the well pumps that are running. For example, if there are 3 well pumps, Well 1 is 100 GPM, Well 2 is 200 GPM and Well 3 is 300 GPM the chlorine injection should be proportional to not only the number of wells running, but the flow rate of each well pump. If Well 1 and Well 2 are running then the chemical injection should be paced for 300 GPM, but if Well 2 and Well 3 are running then it should be paced for 500 GPM.

At the time of purchase, these control conditions were not something that High Tide Technologies offered as a part of their standard system. However, in 3 days, the High Tide personnel configured the server controls module so that it could handle this process. No programming was required at the actual well sites or injection stations. Once the server was configured, the system was tested in the field and the City of White Deer's automated flow-pacing chlorine injection system was working in 15 minutes.



"The changeover was flawless. It was much easier than I expected, especially with us creating a brand-new control scheme for this customer," said Bryan Hughes, an installer for Texas distributor DistributionNOW.

Overall, the low-cost, flexibility, and speed to installation were all factors that made cloud-based SCADA the best fit for the City of White Deer. The ability of High Tide Technologies to configure a customized control scheme in just a few days at no extra charge was a bonus. With this solution, the city could keep their existing controls in place, and their water customers did not have to experience a service interruption -- a smooth transition for everyone involved.

David Mundie, Ph.D. is President of High Tide Technologies.

High Tide Technologies is a cloud-based SCADA company that enables you to monitor & control your system from anywhere without spending a fortune. The simple & secure solution uses field units, satellite, cellular or Ethernet communications, and the Internet to monitor and provide automatic control of your system.