



UTILITIES

City of Kingsport, Tennessee

Memo

To: Chris McCartt, City Manager
From: Niki Ensor, Utilities Director
Date: May 26, 2026
Re: Water Plant High Service Pump #2 Repair

This memorandum serves as justification for the emergency repair of High Service Pump No. 2 at the Kingsport Water Treatment Plant.

On March 17, 2026, plant staff identified a critical operational issue involving High Service Pump No. 2 after observing an approximate reduction in flow output of 2,000 gallons per minute (GPM) prior to removing the unit from service for inspection and evaluation. In addition to the reduced flow, staff also observed a visible and abnormal level of vibration when the pump was operating at or near full speed. These conditions indicated a serious mechanical issue and created an immediate threat to the reliable operation of the water treatment and distribution system, requiring immediate corrective action to maintain continuous service.

At the time High Service Pump No. 2 was removed from service, High Service #3 motor locked up. Leaving the plant with only two operating pumps - #1 and #4. Plant maintenance swapped motor #2 to pump #3 to put a 3rd pump back in operation. However, the installation of High Service Pump No. 4 had only recently been completed and the unit had not yet been operated extensively under normal plant operating conditions. Due to the limited operational history of this newly installed pump, maintaining reliable pumping capacity and system redundancy was a significant operational concern.

High Service Pump No. 2 is a critical component of the water system and is necessary for maintaining:

- Adequate distribution system pressure
- Reliable delivery of treated water to customers
- Fire protection capability throughout the distribution system
- Operational redundancy and system reliability
- Compliance with regulatory and operational requirements

The combination of significant flow reduction and visible vibration indicated a substantial mechanical or operational failure that risked catastrophic equipment damage, loss of pumping capability, operational instability, and possible interruption of water service. Continued operation under these conditions could have resulted in accelerated equipment failure and additional damage to the pump and associated system components. Delaying repairs until completion of normal procurement procedures would have significantly increased operational risk and repair costs.



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Due to the urgent nature of the situation, system staff determined that immediate repair services is necessary to restore the pump to reliable operating condition and maintain uninterrupted system operations. S&W Services quote for repair work includes:

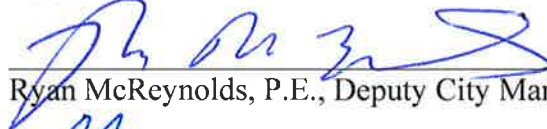
The total cost associated with this emergency repair is \$103,950.00.

This emergency action is necessary and appropriate to protect public health and safety, maintain regulatory compliance, preserve system reliability, and minimize the risk of additional infrastructure damage or water service interruption.

City Code Section 2-605 authorizes purchases in and for apparent or actual emergencies affecting the immediate health, safety and general welfare of the City.

If you are in agreement with this recommendation, your signature of approval is needed for file documentation. Please feel free to contact me should you have any questions.

Approval



Ryan McReynolds, P.E., Deputy City Manager

Date: 5-27-26



Chris McCart, MPA, City Manager

Date: 5/28/26