



MEMORANDUM

To: Mayor and Council

From: Greg Meszaros, Director, Austin Water

Date: March 28, 2016

Subject: Davis Water Treatment Plant Treated Water Discharge System Project on March 31 Agenda (Item # 11)

At the Thursday, March 31, 2016 Council meeting, Council members will consider an item (Item 11) for a contract with MATOUS CONSTRUCTION, LTD, for the Davis Water Treatment Plant Treated Water Discharge System project. The purpose of this memorandum is to provide Council with some additional background information and expand on the details of this project.

Austin has a resilient and robust system that is planned and built to safely and reliably treat and distribute water to Austin's customers in various situations and demands. With the recent addition of WTP4 and the Jollyville Transmission Main, the water system has increased levels of resilience and reliability, strengthening Austin Water's ability to address these types of major improvements to the older parts of the system. Through several recent outages and planned maintenance at plants, reservoirs, and in key pipes, the resiliency of having three water treatment plants and the strong transmission system have proven critical as Austin Water has continued to maintain reliable water service to our customers.

Existing major transmission mains convey water from the Davis Water Treatment Plant (WTP) to various parts of the City. The Davis WTP has served as the main treatment plant for the central, north, and northwest portions of the system for decades. The long-range water distribution network plan relies on the Davis WTP serving primarily central and north Austin and providing water to the east as the City and water distribution system grows.

The Davis WTP began operations in 1954 and continues to be a crucial part of Austin's water distribution system. Key functions of the plant are performed by original assets that are far beyond their expected useful service life. The Davis WTP Medium Service Pump Station (MSPS) project will replace an aged pump station at the treatment plant so that Davis WTP can continue to serve its critical role in the system. The Davis WTP is located in a key central north location for Austin's water distribution system. Having Davis WTP along with Ullrich WTP and WTP4 provides reliability for the water distribution system.

The Davis WTP MSPS current electrical and instrumentation equipment are well beyond their expected service life. The majority of the equipment is obsolete and extremely difficult to repair. Repairs are a lengthy process because parts have to be custom engineered and manufactured. Most of the electrical equipment does not meet current electrical codes and standards.

The Davis WTP has experienced several recent emergencies that illustrate the need for this project and forthcoming electrical improvements. The plant had a water leak at the Medium Service Pump Station (MSPS) that required an emergency shutdown of the entire station. Also, the plant has had several shutdowns related to losing power feeds to the plant and internally to the High Service Pump Station (HSPS). There is currently a high risk for major water leaks or power failures that could result in an extended outage of the MSPS or entire plant. This would cause a reduction in pumping capacity as stated above that has the potential to make it very difficult to satisfy the water demand required by the citizens of Austin. Fortunately, with the addition of WTP4 into our system, we are now positioned to handle such an emergency much better than before. That being said, we must now move forward with necessary rehabilitation.

The Issues stated above are not an all-inclusive list of the major issues/risks that exist at the Davis MSPS. The station and the majority of the components are in need of replacement. The proposed project will construct the new MSPS while maintaining service to customers, with minimal impact to the neighborhood.

Based on the above factors and the time sensitive nature of these improvements to the Davis WTP, Austin Water supports awarding this contract and moving this critical project into construction.

Please contact me if you have any additional questions, and I will be happy to provide clarification.

cc: Marc A Ott, City Manager
Robert Goode P.E., Assistant City Manager