



Date: March 22, 2016
To: Water Utility Board
From: Al Larson, PE, BCEE
Pete Holmgren, PE
Re: **Public Hearing on General Scope and Project Plan**
Project: **Blackhawk Tower**

General Scope

Madison Water Utility (MWU) is seeking the board's approval for the general project plan, scope and timeline for the design and construction of a new water tower – “Blackhawk Tower” – on the far west side of Madison.

The proposed 1 million gallon water tower would:

- Provide additional gravity-fed water storage capacity within the existing Pressure Zone 10 boundary.
- Add needed storage capacity to the existing Pressure Zone 11 boundary.
- Allow for a merging of Pressure Zones 10 and 11 by hydraulically balancing the two zones.
- Supplement the storage at the Well 26 site on High Point Road.
- Provide a second feed (improved reliability) to the area by using Booster Pump Station 128.

The proposed site of this water tower is on the MWU-owned parcel of land located at the southeast intersection of Pioneer Road and Old Sauk Road (Town of Middleton).

Background

The 2006 Water Master Plan identified an eventual need for two new water towers on the far west side; however this proposed project would meet those needs with a single tower.

Pressure Zone 11 is currently fed using a variable speed pumping station. With development in the area the capacity of the pumping station is approaching its capacity, creating the need for a new water tower. The 250,000 gallon High Point Road reservoir (Pressure Zone 10) is reaching its capacity, and already does not provide sufficient emergency reserve capacity. Development within Zone 10 is also starting to stress the limits of the system to provide minimum fire protection. Providing minimum fire flow requirements to this area of the distribution system is necessary to meet MWU's level of service standards.