

**Metropolitan Domestic Water Improvement District  
Board of Directors Meeting**

**November 9, 2020**

**Approval and Award for Storage Tank Coating**

**Synopsis**

The Board is requested approve the internal tank coating of the Magee La Cholla South Storage Tank and award the work to AO Painting.

**Background**

The District operates 21 active steel storage tanks and two large concrete reservoirs. The tanks allow the District to meet the daily and hourly peak water demands as a staging location between water production and distribution to customers. The 21 steel storage tanks are internally coated to provide a barrier between the water and the steel. The barrier protects the steel from corrosion due to contact with the water. Over time, the coating will fail permitting corrosion to start. The American Water Works Association (AWWA) notes the life of an epoxy coating, which the District uses, can be up to 20 years. The life of a coating is dependent on the environment it is exposed to and how well it was applied during installation; both factors can contribute to longer or shorter life spans.

**Issues**

The Magee La Cholla South Storage Tank has a capacity of 1,000,000 gallons and was constructed in 1996. The interior coating has not been fully replaced since its construction 24 years ago; however, during an inspection in 2015, the floor had several areas that were peeling. The floor was brush blasted and recoated as an interim repair until the entire tank could be done. Replacement of the internal coating system is being recommended by staff to extend the life of the storage tank. To replace the interior coating, the contractor will sand blast the interior of the tank to a near white metal. The sand blasting will remove all the existing coating and any corrosion. Once the tank is sand blasted, it will be inspected for pitting and any required repairs to the steel will be accomplished. The coating system will be applied following any repairs.

The District requested quotes from both vendors listed on the City Tucson Cooperative Purchasing Contract: Painting and Other Related Services. The request for quotes (RFQ) requested costs for a high solids and standard epoxy hybrid. The high solids and standard epoxy hybrid consists of having the high solids product applied to all areas below the water line. Since it is a high solids content, there is very low volatile organic compounds (VOCs). Standard epoxy is higher in VOCs

and has provided challenges in curing before the tank can be placed into service. The hybrid system has the standard epoxy on the roof and rafters that are above the water line. The standard epoxy is easier to apply to the sharp corners of the rafters and provides a better coverage in tight places being a thinner material. Since the standard epoxy is applied above the water line, there should not be any VOC issues. This hybrid version has been applied to a few of the District tanks, including the new Hub Reservoir, Oracle Jaynes Station storage tank, and the Hardy storage tank.

AO Painting Inc. was the only respondent to the request for quotes. Wiese Painting Contractors Inc. did not respond. AO Painting's quote for the internal coating of the tank is \$265,733 that includes all work, materials, taxes, and bonds.

Additional costs may be incurred for pitting and other repairs needed that will not be identified until after the sandblasting is completed. Staff is recommending an additional \$2,500 for any necessary repairs that may be required. The District's Storage Tank Rehabilitation budget line item is \$300,000.

### **Staff Recommendation**

It is recommended by staff the Board approve the internal coating of the Magee La Cholla South Storage Tank and award the work to AO Painting in the amount of \$265,733 and authorize the General Manger to approve up to an additional \$2,500 for any necessary repairs that may be required.

### **Suggested Motion**

I move to approve the internal coating of the Magee La Cholla South Storage Tank and to award the work to AO Painting in the amount of \$265,733. and to authorize the General Manger to approve up to an additional \$2,500 for any necessary repairs that may be required.

Respectfully submitted,

Steven D. Shepard  
Utility Superintendent

I concur with the above-noted recommendation.  
Respectfully submitted,

Joseph Olsen, P.E.  
General Manager