



MEMBRANE WATER TREATMENT SYSTEMS

November 28, 2023

Steve Stalvey
Lowndes County Utilities
327 North Ashley Street
Valdosta, GA 31601

Response to RFP for Lowndes County GA Pilot NF/RO Membrane Pilot Skid Testing

Dear Mr. Stalvey:

Thank you for providing the Request for Proposal for the RO Membrane Pilot Skid Testing to We have prepared this proposal per the bid document provided October 13, 2023 and subsequent additional water quality data provided.

Harn is well-known for the quality of our pilot equipment and the comprehensive approach we take to assembling and servicing pilot and full-scale equipment. The equipment we offer provides the Owner and Engineer with the maximum flexibility to study the technology in a timely and cost-effective manner. The membranes we have proposed for consideration will both provide excellent organics removal for achieving compliance with the Stage 2 Disinfection Byproduct Rules.

The RO pilot is what we term "full-scale" that is the smallest unit that simulates full-scale hydraulics and recovery. It also incorporates pretreatment chemical systems (scale inhibitor and sodium bisulfite), low head boosting/transfer pumping that would be needed to take the RO feedwater from the low pressure feed supply and pump it with adequate pressure through the RO cartridge filter. This proposal is based on a two-stage R/O pilot. The RO pilot is designed for 7-element vessel simulation by combining 3-element and 4-element vessels in series. No concentrate recycle is required, however the capability exists if desired. Six-element vessels can also be simulated with the use of a spacer. The RO pilot also includes interstage boost. All pumps have VFD's. Please refer to the information packages submitted with this proposal.

The RO pilot is controlled via touchscreen interface; full-electronic instrumentation and control is provided, and remote access and data log downloading is accommodated. A photo of the RO pilot is included below.

This proposal will provide information about the pilot equipment, Harn's pilot experience, a complete full-scale installation list, and information on the membranes proposed for consideration. Also, pilot data sheets are included herein. As requested in the RFP, we would be happy to arrange a visit to any of our full scale plants that would be of interest to the Owner.