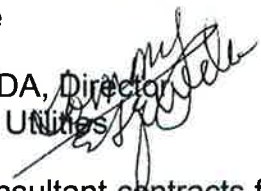




**DEPARTMENT OF PUBLIC UTILITIES
MEMORANDUM**

DATE: September 9, 2016

TO: BRUCE A. RUDD, City Manager
City Manager's Office

FROM: THOMAS C. ESQUEDA, Director
Department of Public Utilities 

SUBJECT: Uniquely qualified consultant contracts for galvanized pipe corrosion control treatment optimization with Dr. Marc Edwards of Virginia Polytechnic Institute and State University, and Dr. Vernon Snoeyink of Water Quality & Treatment Solutions

The purpose of this memorandum is to request authorization to dispense with the City's standard Request for Proposal (RFP) process for consultants, set forth in Administrative Order 6-10, so that the Department of Public Utilities ("Department") may ask Council to award separate research and consulting contracts to Dr. Marc Edwards and Dr. Vernon Snoeyink as uniquely qualified consultants to assist the City in evaluating alternative corrosion control treatment strategies for galvanized pipe under cold water conditions, hot water conditions, and stagnation water conditions.

Dr. Edwards is the Charles P. Lunsford Professor of Environmental and Water Resources Engineering at Virginia Polytechnic Institute and State University (Virginia Tech). Dr. Edwards is an internationally recognized and foremost authority, on the subject of premise plumbing corrosion in single-family residential homes. Dr. Edwards is currently the Principal Investigator under contract to USEPA, the State of Michigan, and the City of Flint, for the discolored water and lead investigations being conducted in Flint, MI.

Dr. Vernon Snoeyink is a Professor Emeritus at the University of Illinois at Urbana-Champaign, and is a nationally recognized expert in water chemistry and water quality control, and served as co-author of *Water Chemistry* (John Wiley, 1980), which is widely regarded as the seminal treatise on water treatment process chemistry. One of Dr. Snoeyink's many PhD students is Dr. Darren Lytle, EPA's Water Division Branch Chief in the EPA's Office of Research and Development in Cincinnati, OH. Dr. Lytle, as Dr. Snoeyink, specializes in the optimization of corrosion control treatment for residential plumbing systems, and will be participating in the research.

Dr. Edwards and Dr. Snoeyink were recently retained by the City to perform an independent and objective assessment of the City's discolored water conditions occurring in Northeast Fresno, and both have prepared reports summarizing their findings and presenting recommendations for additional testing and research. These reports have been invaluable in assisting the City and community with understanding the conditions associated with discolored water in Northeast Fresno. The requested contracts will be with these uniquely qualified consultants for additional laboratory testing, field testing, and



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MEMORANDUM

Bruce Rudd, City Manager
Uniquely Qualified Consultant Contracts
Dr. Marc Edwards and Dr. Vernon Snoeyink

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research related to alternative corrosion control treatment strategies for galvanized pipe under cold water conditions, hot water conditions, and stagnation water conditions.

While the City has been compliant with state and federal regulations, and the system has been optimized for reduced lead and copper corrosion, the presence of galvanized pipe corrosion in NE Fresno is a concern for the City. While Dr. Edwards and Dr. Snoeyink have reported that galvanized pipe is a poor material choice for residential plumbing – especially for hot water conditions and stagnant water conditions – the City desires to determine the technical feasibility of developing a water chemistry that can be applied at the City's surface water treatment facilities to reduce the incidence of galvanized pipe corrosion problems in a system that receives both surface water and groundwater, and in the presence of hot water and extended periods of stagnation.

The Department seeks to contract for additional research with Dr. Marc Edwards and Dr. Vernon Snoeyink to research and identify alternative water chemistry options that may be suitable to implement at the City's surface water treatment facilities to minimize galvanized pipe corrosion in the City's service area

Dr. Edwards and Dr. Snoeyink are two of the foremost experts and authorities in the U.S. on the subject of premise plumbing corrosion in single-family residential homes. As such, the Department seeks to forego the RFP process set forth in Administrative Order 6-19 to award separate contracts to Dr. Marc Edwards and Dr. Vernon Snoeyink to assist the City in the evaluation of alternative corrosion control treatment strategies for galvanized pipe under cold water conditions, hot water conditions, and stagnation water conditions.

If you have any additional questions, or require additional information and data, please do not hesitate to contact me at 559-621-8610.

Approved: Bruce Rudd