



Legislation Text

File #: 19-1048, Version: 2

Resolution to Approve Bulk Chemical Purchases for Sodium Hypochlorite (JCI Jones - approximately \$119,900.00/year), Hydrofluosilicic Acid (Univar- approximately \$22,304.00/year), Pebble Quicklime (Graymont - approximately \$715,000.00/year) and Ferric Chloride (PVS Technologies - approximately \$50,320.00/year) for the Water and Wastewater Treatment Plants (estimated \$901,428.00/year)

Your approval is requested to authorize the purchase of bulk chemicals - sodium hypochlorite, hydrofluosilicic acid, pebble quicklime, and ferric chloride - used in treatment processes at the water and wastewater treatment plants (WTP and WWTP).

In 2019, bids were obtained through the Mid-Michigan Drinking Water Consortium Bulk Chemicals Bid. The Consortium was formed in 2014 by mid-Michigan area utilities that soften drinking water with quicklime, to address chemical supply quality, competitive pricing, and residual disposal.

Consortium members include: Lansing Board of Water and Light; City of Battle Creek; City of Jackson; City of Howell; City of Ann Arbor; City of Fenton; East Lansing Meridian Water & Sewer Authority; Plainfield Township; City of Owosso; Marion-Howell-Osceola- Genoa Water Authority; and Tri-County Regional Planning Commission.

Sodium Hypochlorite

The WTP uses sodium hypochlorite to maintain disinfection of drinking water in the distribution system. The estimated cost of this chemical for FY20 is \$111,900.00/year for approximately 150,000 gallons.

Sodium Hypochlorite Bids were as follows:

Company	Unit	Price
JCI Jones	gal	0.7460
Olin	gal	0.7950
Alexander Chemical	gal	0.8257

Hydrofluosilicic Acid

The Centers for Disease Control has established that 0.7 mg/L of fluoride in drinking water is safe, healthy, and effective for preventing tooth decay. The City's source water contains approximately 0.3 mg/L of fluoride. The City uses hydrofluosilicic acid to adjust the fluoride level to meet Center for Disease Control's recommendation. The estimated cost of this chemical for FY20 is approximately \$22,304.00 for 68 tons.

Hydrofluosilicic Acid bids were as follows:		
Company	Unit	Price: 40,000 lbs. Ship

Univar	ton	\$328.00
Alexander Chemical	ton	\$356.00
Mosaic	ton	\$392.00
Solvay	ton	\$515.00

Pebble Quicklime

The WTP uses quick lime for softening drinking water. The WWTP uses lime for biosolids conditioning. The estimated cost for this chemical in FY20 is \$614,900.00 for the WTP (approximately 4,300 tons) and \$100,100.00 for the WWTP (approximately 700 tons), which totals \$715,000.00.

Pebble Quicklime bids were as follows.		
Company	Unit	Price
Graymont Western	ton	\$140.00

Ferric Chloride

The WWTP uses ferric chloride for the removal of phosphorus to levels specified in its National Pollutant Discharge Elimination System (NPDES) permit. Especially during summer months, phosphorus removal becomes critical and the addition of ferric chloride improves the plant’s ability to remove phosphorus from the wastewater. Violation of NPDES permit requirements could result in significant fines of up to \$25,000.00 per day per occurrence being imposed on the City by the Michigan Department of Environmental Quality. The estimated cost for this chemical in FY20 is \$50,320.00 for approximately 85 dry tons.

Ferric Chloride bids were as follows:			
Company	Unit	Dry Ton	Liquid Ton
PVS Technologies	ton	\$592.00	\$225.00
Kemira Water Sol	ton	\$595.00	\$238.00

It is recommended that purchase orders be awarded to JCI Jones, UnivarChemical, Graymont Western, and PVS Technologies as the lowest responsible bidders, respectively, for sodium hypochlorite, hydrofluosilicic acid, pebble quicklime, and ferric chloride for FY20.

It is also recommended that the purchasing agreement may be renewed for three (3) additional (1) year periods, provided that by 90 days prior to the end of the contract both parties agree to an extension at no increase in cost if the vendor is agreeable, and the City deems it to be in the best interest, and funding is appropriated by Council.

Budget/Fiscal Impact: Funds are specifically budgeted for this purchase in the approved FY20 Operations and Maintenance Budget for the Water Supply System Fund and FY20 Operations and Maintenance budget for the Sewage Disposal System.

Prepared by: Sarah Page, Drinking Water Quality Manager, Water Treatment Services

Reviewed by: Craig Hupy, Public Services Area Administrator

Approved by: Howard S. Lazarus, City Administrator

Whereas, Sodium hypochlorite is used as a disinfectant in the treatment of drinking water;

Whereas, The Water Treatment Plant uses pebble quicklime to soften the drinking water to meet water quality objectives;

Whereas, The Wastewater Treatment Plant uses pebble quicklime to condition biosolids to meet regulatory requirements;

Whereas, The Water Treatment Plant uses hydrofluosilicic acid to adjust the fluoride level in drinking water to meet the Center for Disease Control's recommendation for the prevention of tooth decay;

Whereas, The Wastewater Treatment Plant uses ferric chloride to regulate phosphorus levels in treated waste water;

Whereas, JCI Jones, Univar, Graymont Capital Inc., and PVS Technologies were the lowest responsible bidders in the 2019 Mid-Michigan Drinking Water Consortium Bulk Chemicals invitation to bid;

Whereas, Funding for the purchase of these chemicals available in the approved FY20 Operations and Maintenance Budget for the Water Supply System Fund and FY20 Operations and Maintenance Budget for the Sewage Disposal System; and

Whereas, JCI Jones, Univar, Graymont Capital Inc., and PVS Technologies comply with the requirements of the Non-Discrimination Ordinance;

RESOLVED, That Council accepts the bid of JCI Jones for \$0.746 a gallon for sodium hypochlorite, Univar for \$328.00 a ton for hydrofluosilicic acid, Graymont Capital Inc. for \$143.00 a ton for pebble quicklime, and PVS Technologies for \$592.00 a ton for ferric chloride, for the Water Treatment Plant and Wastewater Treatment Plant in accordance with the terms of the 2019 Mid-Michigan Drinking Water Consortium Bulk Chemicals Bid; and

RESOLVED, That the City Administrator be directed to enter into a purchasing agreement in accordance with this resolution at a projected cost of \$110,900.00 for JCI Jones for sodium hypochlorite for a one-year term ending on June 30, 2020;

RESOLVED, That the City Administrator be directed to enter into a purchasing agreement in accordance with this resolution at a projected cost of \$22,304.00 for Univar for hydrofluosilicic acid for a one-year term ending on June 30, 2020;

RESOLVED, That the City Administrator be directed to enter into a purchasing agreement in accordance with this resolution at a projected cost of \$715,000.00 for Graymont Western for pebble quicklime for a one-year term ending on June 30, 2020;

RESOLVED, That the City Administrator be directed to enter into a purchasing agreement in accordance with this resolution at a projected cost of \$50,320.00 for PVS Technologies for ferric

chloride for a one-year term ending on June 30, 2020;

RESOLVED, That the City Administrator be authorized to renew each of the purchasing agreements for up to three one-year periods, provided both parties agree to the extension and subject to the availability of funding;

RESOLVED, That the City Administrator be directed to accept the next lowest responsible bidder if any of the vendors are unable to furnish adequate supplies during the life of their contract; and

RESOLVED, That the City Administrator be authorized to take all necessary actions to implement this resolution.