



Legislation Text

File #: 24-0767, **Version:** 2

Resolution to Approve Bulk Chemical Purchases for the Water and Water Resource Recovery Plants of Sodium Hypochlorite (JCI Jones Chemical -Approximately \$271,500.00/year), Hydrofluorosilicic Acid (Univar Solutions - Approximately \$35,360.00/year), Pebble Quicklime (Graymont - Approximately \$945,000.00/year), and Ferric Chloride (PVS Technologies - Approximately \$142,496.00/year) Approximately \$1,394,356.00/year.

Your approval is requested to authorize the purchase of bulk chemicals (sodium hypochlorite, hydrofluorosilicic acid, pebble quicklime, ferric chloride), which are used in the treatment process at the City's Water Treatment Plant and Water Resource Recovery Facility (WTP and WRRF).

In 2024, bids were obtained through the Mid-Michigan Water Chemical Consortium 2024-2025 Request for Proposal. 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. The City's Water Resources Recovery Facility also uses lime and will benefit from the consortium pricing.

Consortium members include Lansing Board of Water and Light, City of Lansing, City of Jackson, City of Adrian, and City of Owosso.

Sodium Hypochlorite

The WTP uses sodium hypochlorite to maintain disinfection of drinking water in the distribution system. The estimated cost of this chemical for FY25 is \$271,500/year for approximately 150,000 gallons with quarterly price changes. Sodium Hypochlorite bids were as follows:

1. JCI Jones Chemical, \$1.81/gallon, price subject to change quarterly.
2. Rowell Chemical. \$2.15/gallon
3. Alexander Chemical. \$2.149/gallon

Hydrofluorosilicic Acid

The Center for Disease Control (CDC) has established that 0.7 milligrams per liter (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 the hydrofluorosilicic acid to adjust the fluoride level to meet the CDC's recommendation. The estimated cost for FY25 is \$35,360.00/year for approximately 68 tons. Hydrofluorosilicic acid bids were as follows.

1. Univar Solutions USA Inc., \$520.00/ton with exceptions to terms and conditions.
2. Alexander Chemical, \$620.00/ton

Pebble Quicklime

The WTP uses quicklime for softening drinking water. The WRRF uses quicklime to condition sludge to minimize phosphorus release during dewatering. The estimated cost for this chemical is FY25 is \$945,000.00/year for approximately 5,000 tons. Pebble Quicklime bids were as follows:

1. Carmeuse, \$333.00/ton
2. Graymont, \$189.00/ton

Ferric Chloride

The WRRF uses ferric chloride in liquid form 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 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 Environment, Great Lakes and Energy. The estimated cost for this chemical for FY25 is \$142,496.00/year. Ferric Chloride bids were as follows:

1. PVS Technologies \$1,168.00/ton

Budget/Fiscal Impact: Funds are specifically budgeted and available for these purchases in the FY25 Operation and Maintenance Budget for the Water Supply System Fund and Sewage Disposal System.

Prepared by: Nicholas Baran Inventory Control Technician IV, Water Treatment Services

Reviewed by: Molly Maciejewski, Water Treatment Services Manager

Approved by: Milton Dohoney Jr., City Administrator

Whereas, The City's Water Treatment Plant (WTP) uses sodium hypochlorite as a disinfectant in the treatment of drinking water, hydrofluorosilicic acid to adjust the fluoride level in drinking water to meet the CDC's recommendation for the prevention of tooth decay, and pebble quicklime to soften the drinking water to meet water quality objectives;

Whereas, The City's Water Resource Recovery Facility (WRRF) uses pebble quicklime to condition biosolids to meet regulatory requirements for land application or to condition the sludge to minimize phosphorus release during dewatering and ferric chloride to remove phosphorus in treated waste water to regulated levels;

Whereas, Contracts for supplying estimated requirements are the most stable and cost effective way of meeting water treatment needs;

Whereas, JCI Jones Chemical, Univar Solutions, Graymont, and PVS technologies were the lowest responsible bidders in the Mid-Michigan Water Chemical Consortium 2024-2025 Request for Proposal; and

Whereas, JCI Jones Chemical, Univar Solutions, Graymont, and PVS technologies comply with the requirements of the Conflict of Interest and Non-Discrimination Ordinances;

RESOLVED, That Council accepts the bid of JCI Jones Chemical for \$1.81 per gallon for sodium

hypochlorite subject to quarterly price change, Univar Solutions for \$520.00 per ton of hydro fluorosilicic acid, Graymont for \$189.00 per ton for pebble quicklime and PVS Technologies for \$1,168 per dry ton for ferric chloride, for the WTP and the WRRF in accordance with the terms of the Mid-Michigan Water Chemical Consortium 2024-2025 Request for Proposal;

RESOLVED, That the City Administrator be directed to enter into a purchase agreement in accordance with this resolution at projected cost of \$271,500.00 with JCI Jones Chemical for sodium hypochlorite for a one-year term ending June 30, 2025;

RESOLVED, That the City Administrator be directed to enter into a purchase agreement in accordance with this resolution at projected cost of \$35,360.00 with Univar Solutions hydro fluorosilicic acid for a one-year term ending June 30, 2025;

RESOLVED, That the City Administrator be directed to enter into a purchase agreement in accordance with this resolution at projected cost of \$945,000.00 with Graymont for pebble quicklime for a one-year term ending June 30, 2025;

RESOLVED, That the City Administrator be directed to enter into a purchase agreement in accordance with this resolution at projected cost of \$142,496.00 with PVS Technologies for ferric chloride for a one-year term ending June 30, 2025;

RESOLVED, That the City Administrator be authorized to renew each if the purchasing agreements for up to three one-year periods, provided both parties agree to the extension, subject to the available funding, and limited to the price escalation tied to the PPI for basic chemical manufacturing (code 3251);

RESOLVED, That in the event any vendor is unable or unwilling to furnish adequate supplies during the term of the purchase agreement, the City Administrator is authorized to accept the bid of the next lowest responsible vendor or to negotiate the purchase of necessary supplies on the open market subject to the availability of funding; and

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