



Council Report

Report Number: PUR2022-041
Meeting Date: December 13, 2022
Title: 2022-115-OQ Supply and Delivery of Cold Water Coagulant
Author and Title: Kristy Wilson, Junior Buyer
Robert MacPherson, Water and Wastewater Technician

Recommendation(s):

That Report PUR2022-041, **2022-115-OQ Supply and Delivery of Cold Water Coagulant**, be received;

That Kemira Water Solutions Canada Inc. be selected for the award of 2022-115-OQ Supply and Delivery of SternPAC Coagulant for use at the Lindsay Water Treatment Plant;

That upon completion of the initial one (1) year term, that four (4) – one (1) year renewals. Each optional renewal will be based on satisfactory performance and mutual agreement;

That subject to receipt of required documents, the Mayor and Clerk be authorized to execute the contract;

That Water and Wastewater be authorized to issue a purchase orders as required.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

As per the Purchasing Policy, Item 10.0 Procurement Exemptions, Water and Wastewater Chemicals is exempt so no competitive process is required.

This report is coming to Council as per the Management Directive where purchases that are exempt, but over \$100,000.00 and encumber future operating budgets must go to Council for approval.

A coagulant is an essential chemical in the water treatment process. Coagulants are chemicals added to water to remove suspended solids in water. This process is known as coagulation and is one phase of the treatment process. Coagulants can perform differently given varying raw water qualities, so it is essential to ensure the coagulant chosen is matched to the conditions. This is further described below.

At the Council Meeting of October 10, 2017, Council adopted the following resolution:

WWW2017-007

Rob MacPherson, Water and Wastewater Technician
Coagulant Selection for the Lindsay Water Treatment Plant

CR2017-879

Moved By Councillor James

Seconded By Councillor Veale

RESOLVED THAT Report WWW2017-007, **Coagulant Selection for the Lindsay Water Treatment Plant**, be received; and

THAT the procurement for supply and delivery of Coagulant for the Lindsay Water Treatment Plant be awarded and approved through the request for proposal process in accordance with the Purchasing Policy.

CARRIED

This report addresses that direction.

Prior to the recommendation of the preferred coagulant chemical to be used at the Lindsay Water Treatment Plant (WTP), it was necessary to perform testing on various types of coagulants to determine which would perform the best and provide optimal water treatment along with other processes within the plant. WSP Canada Inc. was retained by the City to study 10 separate types of coagulants for use at the Lindsay WTP. During the initial testing and evaluation, WSP identified two compatible coagulants, SternPAC and DeltaFloc-1118. WSP also recommended that further testing be completed on these two coagulants to confirm that they would perform adequately during different seasonal conditions and provide good safe drinking water for Lindsay's public supply. This further testing was completed by WSP in the winter months of 2017. Both chemicals performed at similar levels, however based on estimated annual

dosages and pricing received by the supplier for both chemicals, DeltaFloc-1118 was costlier and with switching chemicals from the currently used coagulant, SternPAC, to DeltaFloc-1118, there may be additional costs to accommodate the switch. Based on WSP's endorsement of SternPAC as the preferred coagulant, staff had recommended to Council that SternPAC continue to be the cold water coagulant used at the Lindsay WTP and that staff negotiate a contract with Kemira for the continued supply and delivery of SternPAC. In response Council, adopted the resolution above. Throughout 2022 SternPAC was further tested for use all year long, in coordination with an Ozone pilot project that was occurring at the plant for the reduction of THMs/HAA (disinfection by-products). THMs and HAAs are regulated disinfection by-products that occur in drinking water. In an effort to reduce these levels, ongoing investigations are underway to determine the preferred solution. Preliminary results have indicated that using SternPAC during all seasons is favourable in better organics/particulate removal during the coagulation process, which has resulted in better quality water and a reduction in THM/HAA formation. As options for overall THM/HAA reductions continue to be explored, these results will also be considered in the preferred solution.

Rationale:

Staff are recommending Kemira Water Solutions Canada Inc. be selected for the award of Supply and Delivery of Cold Water Coagulant for a term ending December 31, 2023.

The City shall have the option to renew the Contract for an additional four (4) – one (1) year terms. Each optional renewal shall be based on satisfactory performance and mutual agreement.

Other Alternatives Considered:

No other alternatives are being considered. Kemira Water Solutions Canada Inc. are the only manufacturer of SternPAC.

Alignment to Strategic Priorities

This report aligns with the strategic priority of Healthy Environment in our commitment to protecting and enhancing water quality. The use of SternPAC has proven to be the best coagulant for providing quality drinking water that continues to meet and exceed provincial standards.

Financial/Operation Impacts:

2022-115-OQ Supply and Delivery of Cold Water Coagulant is allocated in the 2023 Public Works Water and Wastewater operating budget. The contract with Kemira is based on the unit rate of liquid kilogram. The total overall cost of the contract is dependent on the amount of coagulant required which can vary from year to year. The Department will monitor the budget and ensure that sufficient funds are allocated for this work in the future operating budgets.

Department Head email: brobinson@kawarthalakes.ca

Department Head: Bryan Robinson

Department File: 2022-115-OQ