



DES MOINES WATER WORKS  
Board of Water Works Trustees

Agenda Item No. III-C  
Meeting Date: November 22, 2016  
Chairperson's Signature  Yes  No

**AGENDA ITEM FORM**

**SUBJECT: 2017 Water Treatment Chemicals – Analysis of Bids and Authorize Execution of Contracts**

**SUMMARY:**

Below is listed the bid analysis and purchase recommendations for the 2017 water treatment chemical supplies, presented by Julia Johnston, Purchasing/Central Stores Supervisor.

**FISCAL IMPACT:**

The 2017 budget for water treatment chemicals will provide the cost of \$2,477,398.90. Staff decided to defer seeking bids for lime and antiscalant until the first quarter of 2017, due to trial run of lime at the Fleur Drive Treatment Plant and trial run of antiscalant at the Saylorville Water Treatment Plant. Staff currently estimates an additional \$2,357,193.38 will be presented at the March Board meeting for lime and antiscalant. Chemicals in this recommendation include requirements for the Fleur Drive, McMullen and Saylorville Water Treatment Plants.

**RECOMMENDED ACTION:**

Award the 2017 chemical contracts to bidders as follows:

**Aluminum Sulfate-Ground:** to Chemtrade, the low responsible bidder at \$. 2815 per pound (2016 cost \$.255).  
**Activated Carbon:** to Carbpure, the low responsible bidder at \$.71 per pound to Fleur \$.79 per pound to McMullen (2016 cost \$.75 to Fleur, .80 to McMullen).  
**Carbon Dioxide-Liquid:** to Air Products, the low responsible bidder at \$. 0425 per pound (2016 cost \$.0525).  
**Citric Acid:** to Hydrite, the low responsible bidder at \$.45 per pound (2016 cost \$.48).  
**Ferric Chloride:** to Kemira, the low responsible bidder at \$.1196 per pound solution. (2016 cost \$.111).  
**Hydrochloric Acid:** to Hawkins Water Treatment, the low responsible bidder at \$.161 per pound (2016 cost \$.169)  
**Hydrofluosilicic Acid:** to Mosaic, the low responsible bidder at \$. 197 per pound (2016 cost \$.219).  
**Aluminum Chloride Hydroxide Sulfate IC1179P:** to GE Water Process Technologies, the low responsible bidder at \$.61 per pound (2016 cost .61)  
**Polyphosphate:** to Carus, the low responsible bidder at \$.365 per pound. (2016 cost \$.38).  
**Soda Ash:** to Hydrite, the low responsible bidder at \$.155 per pound (2016 cost \$.1599).  
**Solar Salt:** to Step Saver, the responsible bidder at \$178.00 per ton (2016 cost \$178.00 Step Saver).  
**Sodium Hypochlorite:** to Vertex, the low responsible bidder at \$.62 per gallon (2016 cost \$.64).  
**Sodium Hydroxide 30%:** to DPC, the low responsible bidder at \$1.07 per gallon (2016 cost \$.869).  
**Sodium Bisulfite:** to Thatcher Chemical, the low responsible bidder at \$.1179 per pound (2016 cost \$.121).  
**Sodium Permanganate:** to Carus, the low responsible bidder at \$.654 per pound (2016 cost \$.68).  
**Antiscalant:** Water Production is currently running a trial on a new antiscalant from Consolidated H20 (2016 cost \$2.69). Bids will be sent out in January for March Board meeting.  
**Lime:** Quick Pebble for Fleur Drive plant. Water Production is currently running a three month trial run of Mississippi product at our Fleur Drive Plant (2016 cost \$133.00) Bids will be sent out in January for March Board meeting.  
**Lime:** Quick Pebble for McMullen plant – to Mississippi Lime, which is maintaining their 2016 cost for the first three months while the trial run is performed at Fleur Drive (2016 cost at McMullen \$163.95). Bids will be sent out in January for March Board meeting

**BOARD REQUIRED ACTION:**

Motion to award the 2017 contracts for water treatment chemical supplies to the low responsible bidders.

<p>_____/_____ Julia Johnston (date) Purchasing/Central Stores Supervisor</p>	<p>_____/_____ Michael J. McCurnin, P.E. (date) Director of Water Production</p>	<p>_____/_____ William G. Stowe (date) CEO and General Manager</p>
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**Chemical Price Change Summary Report  
2016 to 2017**

Plant	Chemical	New Price	Old Price	Percentage Change	Estimated Usage	Unit of Measure	2017 Total	2017 Vendor
Fleur	Activated Carbon	\$ 0.71000	\$ 0.75000	-5.33%	568,913	Pounds	\$403,928.23	Carbpure
Fleur	Aluminum Sulfate	\$ 0.28150	\$ 0.28350	-0.71%	1,341,009	Pounds	\$377,494.03	Chemtrade
Fleur	Carbon Dioxide	\$ 0.04250	\$ 0.05250	-19.05%	2,600,746	Pounds	\$110,531.71	Air Products
Fleur	Ferric Chloride	\$ 0.11960	\$ 0.11100	7.75%	1,950,559	Pounds	\$233,286.86	Kemira
Fleur	Hydrofluosilicic Acid	\$ 0.19700	\$ 0.21900	-10.05%	243,820	Pounds	\$48,032.54	Mosaic
Fleur	<b>Lime **</b>		\$ 133.00			Tons	\$0.00	TBD
Fleur	Soda Ash	\$ 0.15500	\$ 0.15990	-3.06%	390,112	Pounds	\$60,467.36	Hydrite
Fleur	Solar Salt	\$ 178.00	\$ 178.00	0.00%	1138	Tons	\$202,564.00	Step Saver
Fleur	Sodium Hypochlorite	\$ 0.62000	\$ 0.64000	-3.13%	201,177	Gallons	\$124,729.74	Vertex
Fleur	Polyphosphate	\$ 0.36500	\$ 0.38000	-3.95%	162,547	Pounds	\$59,329.66	Carus
<b>Fleur Drive Sub-Total</b>							<b>\$1,620,364.13</b>	
McMullen	Activated Carbon	\$ 0.79000	\$ 0.80000	-1.25%	180,144	Pounds	\$142,313.76	Carbpure
McMullen	Carbon Dioxide	\$ 0.04250	\$ 0.05250	-19.05%	880,704	Pounds	\$37,429.92	Air Products
McMullen	Sodium Hypochlorite	\$ 0.62000	\$ 0.64000	-3.13%	95,128	Gallons	\$58,979.36	Vertex
McMullen	Ferric Chloride	\$ 0.11960	\$ 0.11100	7.75%	1,040,832	Pounds	\$124,483.51	Kemira
McMullen	Hydrofluosilicic Acid	\$ 0.19700	\$ 0.21900	-10.05%	120,096	Pounds	\$23,658.91	Mosaic
McMullen	<b>Lime **</b>		\$ 163.95			Tons	\$0.00	TBD
McMullen	Polyphosphate	\$ 0.36500	\$ 0.38000	-3.95%	40,032	Pounds	\$14,611.68	Carus
McMullen	Soda Ash	\$ 0.15500	\$ 0.15990	-3.06%	0	Pounds	\$0.00	Hydrite
<b>McMullen Sub-Total</b>							<b>\$401,477.14</b>	
SWTP	<b>Antiscalant **</b>		\$ 2.69000			Pounds	\$0.00	TBD
SWTP	Citric Acid	\$ 0.45000	\$ 0.48000	-6.25%	191,778	Pounds	\$86,300.10	Hydrite
SWTP	Hydrofluosilicic Acid	\$ 0.19700	\$ 0.21900	-10.05%	53,272	Pounds	\$10,494.58	Mosaic
SWTP	Polyphosphate	\$ 0.36500	\$ 0.38000	-3.95%	10,654	Pounds	\$3,888.71	Carus
SWTP	Sodium Bisulfite	\$ 0.11790	\$ 0.12100	-2.56%	319,631	Pounds	\$37,684.49	Thatcher
SWTP	Sodium Hydroxide 30%	\$ 1.07000	\$ 0.86900	23.13%	124,332	Gallons	\$133,035.24	DPC
SWTP	Sodium Hypochlorite	\$ 0.62000	\$ 0.64000	-3.13%	97,052	Gallons	\$60,172.24	Vertex
SWTP	Sodium Permanganate	\$ 0.65400	\$ 0.68000	-3.82%	127,852	Pounds	\$83,615.21	Carus
SWTP	Aluminum Chloride Hydroxide Si	\$ 0.61000	\$ 0.61000	0.00%	63,926	Pounds	\$38,994.86	GE Water & Process Technologies
SWTP	Hydrochloric Acid	\$ 0.16100	\$ 0.16900	-4.73%	8,523	Pounds	\$1,372.20	Hawkins
<b>SWTP Sub-Total</b>							<b>\$455,557.63</b>	
<b>Des Moines Water Works 2017 Total</b>							<b>\$2,477,398.90</b>	

**\*\*Lime and Antiscalant to be bid in first quarter of 2017. Total estimated cost for all 3 chemicals additional \$2,357,193.38**

**Staffs current estimate for March board meeting will be \$1,545,726 for Lime at Fleur, \$699,561.50 for lime at McMullen and \$111,905.88 for antiscalant at Saylorville**