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PUBLIC SERVICES COMMITTEE AGENDA

Monday, January 18, 2016, 5:00 pm Committee Room

1.	ROLL	- CALL				
2.	DECLARATION OF CONFLICT OF INTEREST					
3.	MINUTES OF THE PREVIOUS MEETINGS					
	3.1	Monday, November 16, 2015	2			
4.	COR	RESPONDENCE				
5.	PUBLIC PRESENTATION					
6.	UNFINISHED BUSINESS					
7.	NEW BUSINESS					
	7.1	Staff Report OPS 2016-01 Summary Report for Municipalities dated January 6, 2016	4			
	7.2	Staff Report OPS 2016-02 Fund Reallocation - VFD to Pumping Systems dated January 12, 2016	12			
	7.3	Staff Report OPS 2016-03 Transit Bus Report dated January 12, 2016	14			
	7.4	Staff Report OPS 2016-04 Fund Reallocation - Clearwell dated January 13, 2016	16			
8.	ADDENDUM					
9.	CLOSED SESSION					
10.	SCHEDULING OF NEXT MEETING					

11. ADJOURNMENT





PUBLIC SERVICES COMMITTEE MEETING MINUTES

Monday, November 16, 2015 5:00 pm Committee Room

Present:

C. Martin, Chair, Luc Cyr, Dan Marchisella

S. McGhee, Jeff Renaud, Scot Reinhardt, Connie Nykyforak, Tammy Vanroon

1. ROLL CALL

The meeting was called to order by the Chair at 5:19pm.

2. MINUTES OF THE PREVIOUS MEETINGS

2.1 Monday, October 19, 2015

Res#: 55/15 Moved By: Dan Marchisella Seconded By: Luc Cyr

That the Minutes of the October 19th meeting of the Public Services Committee be received;

Carried

3. NEW BUSINESS

3.1 Staff Report OPS 2015-30 Fuel and Lubricants

dated November 9, 2015

Res#: 56/15 Moved By: Luc Cyr Seconded By: Dan Marchisella That Staff Report OPS 2015-30 dated November 9, 2015 of the Director of Operations be received;

and that the Public Services Committee recommend to Council that Contract No.

2015-12, for the provision of gasoline, diesel fuel, and lubricants for use in the operation and maintenance of the City of Elliot Lake fleet, in the amount of \$836,255.⁸⁵ be awarded to McDougall Energy Inc.

Carried

4. SCHEDULING OF NEXT MEETING

The next scheduled Public Services Committee meeting is 18 January, 2016 at 5pm.

5. ADJOURNMENT

Res#: 57/15 Moved By: Luc Cyr Seconded By: Dan Marchisella That the meeting be adjourned at the hour of 5:25 pm.

Carried

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Staff Report OPS2016-01

Report of the **Director of Operations** for the Consideration of Council

RE: SUMMARY REPORT FOR MUNICIPALITIES

OBJECTIVE

To provide Mayor and Council with information as required under the Safe Drinking Water Act, 2002 – O. Reg. 170/03 – Schedule 22 (Summary Reports for Municipalities).

RECOMMENDATION

THAT Staff Report OPS 2016-01 dated January 6, 2016 of the Director of Operations be received;

AND THAT the Summary Report for Municipalities be posted on the City's web site and made available in print (free of charge) to members of the public upon request.

Respectfully Submitted

Sean McGhee Director of Operations

Approved

Jeff Renaud

Chief Administrative Officer

January 6, 2016

Under Schedule 22 of Ontario Regulation 170/03, sub-section 22-2 (1) states that; The owner of a drinking water system shall ensure that, not later than March 31 of each year after 2003, a report is prepared in accordance to subsections (2) and (3) for the preceding calendar year and is given to, in the case of a drinking water system owned by a municipality, the members of the municipal council.

(2) The report must,

- (a) list the requirements of the Act, regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

(3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- 1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including the monthly average and maximum daily flows and daily instantaneous peak flow.
- 2. A comparison of the summary referred to in paragraph 1 to the related capacity and flow rates approved in the system's Municipal Drinking Water License.

ANALYSIS

Please refer to the attached report.

FINANCIAL IMPACT

Not applicable

LINKS TO STRATEGIC PLAN

The information found in the Summary Report aides in educating members of our community regarding infrastructure operations. The report is consistent with the commitment identified by Mayor and Council within the Strategic Plan focusing on "Continued Investment into Infrastructure".

SUMMARY

This report provides evidence and assurances to Mayor and Council that as Officers of the Corporation, Council is exercising the prescribed standard of care with respect to the operations of the water treatment system. Receiving this report will ensure the municipality's compliance with regard to prescribed legislation under the Safe Drinking Water Act.

January 6, 2016



The Mayor and Members of Council City of Elliot Lake Municipal Office 45 Hillside Drive North Elliot Lake, Ontario P5A 1X5

ATTENTION: Mayor and Member of Council

RE: ELLIOT LAKE WATER TREATMENT PLANT SUMMARY REPORT FOR MUNICIPALITIES: Municipal Large Residential

Your Worship Mayor Marchisella and Members of Council:

Please find attached, the 2015 Summary Report for the Elliot Lake Water Treatment Plant. This report has been prepared in accordance to the guidelines set out in Schedule 22 of the Safe Drinking Water Act, 2002 (Ontario Regulation 170/03).

The report covers the period from January 1, 2015 to December 31, 2015.

Please direct any questions or concerns to the undersigned.

Yours truly,

Sean McGhee Director of Operations

Elliot Lake Water Treatment Plant 2015 Summary Report

The purpose of this report is to summarize water quality and quantity data pertaining to the Elliot Lake water treatment plant.

This report is prepared in accordance with Schedule 22 of Regulation 170/03 of Ontario's Safe Drinking Water Act and covers the reporting period from January 1, 2015 to December 31, 2015.

The report contains the following information:

- A summary of the quantities and flow rates of the water supplied including monthly average and maximum daily flows.
- A comparison of the peak flows and capacities to the rated capacities referenced in the drinking water works permit and municipal drinking water licence.
- A listing of all requirements of the Act, the Regulations, the systems Drinking Water Permit and Licence, and applicable system approvals that the system failed to meet during the period covered by the report. This includes any measures taken to mitigate the failure and the duration of the incident.
- Terms and conditions identified in the Act, relevant regulations, drinking water permit, and municipal drinking water licence.

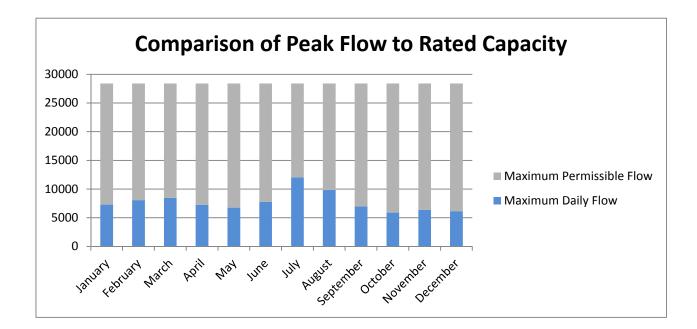
Under the Regulation, this report must be provided to Members of Municipal Council not later than March 31st of each calendar year.

Upon approval of Council, the report is posted on the City of Elliot Lake website and can be found at the following link: *http://www.cityofelliotlake.com/en/cityhall/operationsreports.asp*

Annual Quantities and Flow Rates:

MONTH	Minimum Flow / Day (M ³)	Maximum Flow / Day (M ³)	Average Flow / Day (M ³)	Instantaneous Peak flow (I/s)	Total Flow (M ³)
January	4,284	7,308	5,898	157.2	192,390
February	4,965	8,068	6,305	156.7	185,110
March	4,640	8,476	6,641	167.3	216,633
April	4,587	7,259	5,761	157.8	182,763
May	2,849	6,765	5,167	154	168,942
June	3,587	7,793	5,397	239.5	170,656
July	3,828	12,041	7,415	184.5	241,332
August	3,877	9,871	6,997	151.9	211,987
September	3,884	6,999	5,325	156.1	167,927
October	3,806	5,891	5,018	146.3	164,149
November	4,067	6,375	4,992	165.5	158,151
December	3,103	6,159	5,038	158.4	164,764
Minimum	2,849	5,891	4,992	146.3	158,151
Maximum	4,965	12,041	7,415	239.5	241,332
Average	3,956	7,750	5,830	166.3	185,400
				Total Flow for 2015	2,224,804

As noted in the graph below, the maximum rated capacity of **28,400** m³/day (as identified in the facility's Municipal Drinking Water Licence) was not exceeded for the period of this report.



Regulatory Inspection

The Ministry of the Environment carried out a facility inspection on June 9th, 2015. No orders were issued and no additional action was required. The final inspection rating for the system was 100.0%.

Compliance Report

Section 18 of the Safe Drinking Water Act requires the system operator to report adverse test results or conditions immediately after the result is obtained or situation identified.

A test result is considered adverse when the sample being tested fails to meet the prescribed drinking water standards. Limits for all parameters being tested under the Acts and Regulations are identified under the various Regulations associated with the Safe Drinking Water Act, 2002.

Adverse test results must be identified in the Summary Report.

Situations involving the depressurization of any portion of the distribution system for repair of a watermain can be deemed as an adverse event due to the potential for contamination through back siphonage or pressurized backflow. These incidents are included in the list of adverse events. They are indicated as <u>evidence of best practice</u> on the part of the Public Works Department.

There were 26 instances in 2015 where reports were made to the Health Unit and Spills Action Centre in accordance with Section 18 of the Safe Drinking Water Act.

Corrective Action:

In all cases when repair or maintenance carried out on the distribution system requires depressurization of any part of the system, the Algoma Health Unit is notified. This scenario is considered to be a "failure of mechanical containment", which can potentially lead to contamination through back siphonage or pressurized backflow.

These situations are without exception, treated as an adverse incident by the Algoma Health Unit, and either a Boil Water Advisory or Drinking Water Advisory is issued in order to protect the consumer from potential risk. Boil Water Advisories are issued when the risk to the system is deemed to be bacteriological in nature, whereas a Drinking Water Advisory is issued in situations where the Health Unit is concerned with physical, chemical, or organic contamination.

Following the repair, flushing is undertaken to restore quality. Once completed, two consecutive sets of bacteriological tests are taken, at 24 hour intervals, after which, if all is clear, the advisory is lifted.

Adverse Water Quality Incidents:

INCIDENT DATE	PARAMETER	RESULTS	UNIT OF MEASURE	CORRECTIVE ACTION	CORRECTIVE ACTION DATE
8-Jan-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	19-Jan-15
15-Jan-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	26-Jan-15
28-Jan-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	2-Feb-15
29-Jan-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	6-Feb-15
02-Feb-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	12-Feb-15
10-Feb-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	17-Feb-15
11-Feb-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	20-Feb-15
17-Feb-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	27-Feb-15
10-Mar-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	15-Mar-15
29-Apr-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	5-May-15
13-May-15	Hydrant Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	19-May-15
20-May-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	25-May-15
25-May-15	Watermain Cleaning	Pressure Loss	PSI	Boil Water Advisory - flush - resample	5-Jun-15
08-Jun-15	Watermain Repair	Pressure Loss	PSI	Boil Water Advisory - flush - resample	15-Jun-15
17-Jul-15	Watermain Cleaning	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	10-Aug-15
23-Jul-15	Valve Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	4-Aug-15
29-Jul-15	Watermain Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	4-Aug-15
12-Aug-15	Low Cl ₂ Residual	< 0.05	mg/l	Boil Water Advisory - flush - resample	31-Aug-15
20-Aug-15	System Upgrades	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	10-Sep-15
15-Oct-15	System Upgrades	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	26-Oct-15
26-Oct-15	Hydrant Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	30-Oct-15
30-Oct-15	Watermain Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	5-Nov-15
7-Dec-15	System Upgrades	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	15-Dec-15
9-Dec-15	System Upgrades	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	16-Dec-15
22-Dec-15	Watermain Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	30-Dec-15
23-Dec-15	Watermain Repair	Pressure Loss	PSI	Boil Water / Drinking Water Advisory - flush - resample	4-Jan-16

Identified Terms and Conditions

Performance:

The Elliot Lake Water Treatment Plant meets the requirement of the Ontario "Drinking Water Standards." Disinfection of treated water is achieved as per Ministry Procedure B13-3. Required CT was continuously monitored and met at all times ensuring appropriate levels of disinfection were attained.

Backwash water discharge suspended solids were monitored with an average of **23 mg/l** which is below the required **25 mg/l** annual average.

Monitoring and Recording:

Flow meters, chlorine analyzers and turbidimeters are calibrated per manufacturer's specifications. Third party certification is secured on an annual basis as a quality assurance, quality control measure.

Operations and Maintenance:

Maintenance of the water treatment plant is conducted, monitored, documented, and controlled through a preventive maintenance program. All operators are certified with at least one operator certified at the designated level of the facility. All treatment chemicals meet A.W.W.A. (American Water Works Association) and ANSI / NSF 60 quality criteria for drinking water.

Process Parameters:

The following are the chemicals used and dosage rates:

- Polyaluminum Chloride 25.87 mg/l
- Hydrofluorosilicic Acid 0.458 mg/l
- Chlorine 2.55 mg/l
- Hydrated Lime 10.41 mg/l

Drinking Water Quality Management System

The Quality Management System (QMS) consists of an Operational Plan that defines and documents the various policies and procedures with respect to water quality management which were established to meet Province of Ontario standards as identified within the Safe Drinking Water Act.

The Management Review and Internal Audit were all completed in 2015 per the requirements outlined in the Operational Plan found in the Drinking Water Quality Management System.

Documentation:

Contingency plans, the Facility Operations Manual, Standard Operating Procedures and the Drinking Water Quality Management Standard documents which provide guidance in the event of emergencies, upset conditions and breakdowns are located in the office at the water treatment facility. Detailed drawings of the facility are centrally located in the Operational Control Room.



Staff Report OPS2016-02

Report of the **Director of Operations** for the Consideration of Council

RE: CAPITAL FUNDS REALLOCATION

OBJECTIVE

To provide Mayor and Council with information regarding the reallocation of funds required for the reconstruction of Elliot Lake Water Treatment Plant pumping systems.

RECOMMENDATION

That Staff Report OPS2016-02 dated January 12, 2016 of the Director of Operations be received;

and that the reallocation of unexpended 2015 capital funds in the amount of \$87,020.⁰⁰ which were designated for the purchase and installation of a high lift pump variable frequency drive be used to complete pumping system rebuilds at the water treatment plant;

and that the provision of parts, materials, and services relating to the high lift and backwash pump rebuilds at the Elliot Lake water treatment plant be awarded to International Water Supply.

Respectfully Submitted

Sean McGhee Director of Operations

Approved

Jeff Renaud Chief Administrative Officer

January 12, 2016

The 2014 water treatment plant capital works budget included funds necessary to purchase and install a variable frequency drive (VFD) on high lift pump number three. In 2015, additional funds were approved to complete necessary updates the inverter rating on the associated high lift number three in order to ensure compatibility with the VFD. Some challenges have been identified in association with the installation of a VFD given the age, design, and capacity of this high lift pump. The total funds allocation for this project is \$87,020.⁰⁰.

Prior to commencing with the VFD project, repairs were initiated on high lift pump number two. The repairs to the high lift pump were given a priority over other projects based on demonstrated losses in pump performance.

Given the magnitude of the high lift pump rebuild project, International Water Supply Limited was contracted to complete the repairs. This firm was selected as they are the only certified service provider in the Province of Ontario, that we were able to find, that was able to provide both parts and service to these pumps.

Once the pump was lifted, it was apparent that the pump internals were severely compromised due to age and ongoing exposure to chlorinated water. Once repairs were completed, the municipality realized a 31% increase in pump performance.

Preliminary inspection of the remaining pumps has indicated that all pumps have been compromised by corrosion and wear.

ANALYSIS

Prior to further upgrades to the control and operating systems driving the pumps, it is critical that all components of the pumps be removed, cleaned, inspected, and upgraded as necessary.

During the repair and rebuild process, International Water Supply would be instructed to review the operation of high lift number three to determine the best options for future upgrades.

FINANCIAL IMPACT

A noted earlier in this report, a total of \$87,020.⁰⁰ was budgeted for installation of a variable frequency drive. If re-allocated, this should prove sufficient to rebuild the two remaining duty high lift pumps and the two backwash pumps.

LINKS TO STRATEGIC PLAN

Approval of this request will uphold the commitment of Mayor and Council toward "Continued Investment into Infrastructure". This report serves to assist in "educating the public on infrastructure operations, repair and replacement".



Approval of this reallocation will ensure maximum reliability and performance from the high lift pumps prior to any investment in upgraded control systems.



Staff Report OPS2016-03

Report of the **Director of Operations** for the Consideration of Council

RE: TRANSIT BUS PURCHASE

OBJECTIVE

To provide Mayor and Council with information regarding the purchase of one (1) 183" wheelbase transit bus.

RECOMMENDATION

THAT Staff Report OPS2016-3 dated January 12, 2016 of the Director of Operations be received;

AND THAT one (1) 183" wheelbase transit bus be purchased under contract 2015-09 through the Metrolinx Transit Purchasing Initiative in the amount of \$181,100.⁰⁰ plus applicable taxes from Creative Carriage Ltd.

Respectfully Submitted

Sean McGhee Director of Operations

Approved

Jeff Renaud

Chief Administrative Officer

January 12, 2016

In 2015, Council determined that new, 183" wheelbase buses would better suit the ridership demands of our existing transit system. Two new buses were purchased and placed into service in October 2015.

Our Municipal transit system utilizes a three bus system where two units are considered as duty units and a third bus is prepped and available to ensure uninterrupted service. In the absence of a third unit, the options are limited to utilization of school buses for transit service delivery, or service interruptions.

Purchase of this transit bus was included in the 2016 capital budget. The purchase was approved at the budget committee level.

ANALYSIS

The proposed unit has an identical drivetrain to the two existing units. It is based on a GMC 4500 Series chassis and is equipped with the standard 6.6 liter duramax diesel and 6 speed automatic transmission.

The proposed unit has a floorplan that has been modified over the existing transit units to include both perimeter and forward facing seat options. This design allows up to 20 passengers or 15 passengers and two wheelchairs.

These units fully meet current Accessibility for Ontarians with Disabilities Act standards and include air-ride suspension, full kneeling capability and a Braun Power Ramp with 1:6 slope.

The units are available and can be on site as early as March of this year.

FINANCIAL IMPACT

The new transit units are individually priced at \$181,100.⁰⁰ without fare box installed. The estimated price for a suitable fare box is approximately \$15,735.⁰⁰ per unit. This brings the total for the complete unit to approximately \$196,835.⁰⁰ plus applicable taxes. In all, \$203,500.⁰⁰ plus tax was approved in the 2016 capital budget for the purchase of this unit.

LINKS TO STRATEGIC PLAN

This project is consistent with the Strategic Plan in that it promotes "Health and Wellness" through enhanced community accessibility as well as "Development of Strong Partnerships" by supporting the local business community.

SUMMARY

The purchase of this unit will significantly improve the reliability of our transit system by providing necessary backup when one unit is down for repair or service. The transit system has already seen some down time as warranty related emissions problems were encountered with one of the new units.



Staff Report OPS2016-04

Report of the **Director of Operations** for the Consideration of Council

RE: CAPITAL FUNDS REALLOCATION – CLEARWELL REPAIR

OBJECTIVE

To provide Mayor and Council with information regarding the reallocation of funds required for the repairs to the Elliot Lake Water Treatment Plant clearwell.

RECOMMENDATION

That Staff Report OPS2016-04 dated January 13, 2016 of the Director of Operations be received;

and that the reallocation of unexpended 2015 capital funds in the amount of \$10,150.⁰⁰ which were designated for the purchase of an intercom system be applied to clearwell repair costs at the water treatment plant;

and that Mayor and Council be advised of the anticipated expenditure of \$16,000.00 plus applicable taxes for the provision of parts, materials, and services relating to the repair of clearwell gate valves at the Elliot Lake water treatment plant by Watech Services Inc.

Respectfully Submitted

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Sean McGhee Director of Operations

Approved

Jeff Renaud

Chief Administrative Officer

January 13, 2016

Funds were requested and approved during the 2015 budget process to complete an underwater inspection of treated water storage vessels. This included an inspection of both standpipes in addition to the treated water clearwell at the water treatment plant.

During the inspection, a complete failure of one of the three clearwell gate valves was identified. The gate valve had separated from the actuating shaft and dropped into the closed position. This failure completely eliminated our ability to isolate specific cells of the clearwell in the event of an emergency.

Watech Services Inc. was contacted as one of only two firms available and certified to complete underwater work in a potable water environment. A complete assessment of the failure and condition of remaining gate valves was undertaken. During this process it was determined that components used to hold the gate valve and actuator together had corroded and failed. Temporary repairs were undertaken to regain function of the gate valve.

Watech Services have been scheduled to return and complete the work as soon as possible to restore full operational control of the gate valve, and to upgrade the remaining two gate valves to avoid further failures. The work is estimated to cost approximately \$16,000.00 to complete.

In order to cover the additional costs incurred during the underwater inspection, a reallocation of \$10,150.00 which was budgeted to replace the water treatment plant intercom system in 2014 is being requested. The intercom was rendered unnecessary as a result of changes in the operation of the water treatment plant brought on through automation.

ANALYSIS

Two firms were identified as being certified to complete work in a potable water environment. In keeping with the municipal procurement policy, quotes for the service, based on a standard work day were secured. The pricing is as follows:

- Watech Services Inc. Price including mobilization / demobilization, per diem expenses, and hourly rate for the dive crew \$7,000.⁰⁰
- Soderholm Maritime Services Inc. Price including mobilization / demobilization, per diem expenses, and hourly rate for the dive crew - \$8,698.⁰⁰

Given the nature of the failure, it was deemed by staff, through consultation with the Chief Administrative Officer that this work be completed as soon as practically possible. For this reason, and in keeping with the emergency procurement measures found in Section VIII(E) of the Procurement Policy, Watech Services was contacted and asked to complete all work necessary to return the gate valves to full operational status.

In order to complete the work with minimum negative impact on the operating budget, a reallocation of funds designated for replacement of the water treatment plant intercom is being requested.

FINANCIAL IMPACT

A noted earlier in this report, a total of \$10,150.⁰⁰ was budgeted for purchase of an intercom system for the water treatment plant. There is \$15,214.00 remaining for the completion of water storage vessel inspections. The re-allocation of Intercom System replacement funds, used in conjunction with remaining capital project funds already dedicated to the inspection of the clearwells will provide sufficient funds to complete the necessary repairs.

LINKS TO STRATEGIC PLAN

Approval of this request will uphold the commitment of Mayor and Council toward "Continued Investment into Infrastructure". This report serves to assist in "educating the public on infrastructure operations, repair and replacement".

SUMMARY

Approval of this reallocation will ensure that the gate valves at the water treatment plant are repaired without imposing a negative impact on the operating budget or reserve funds balance.