Administration's Response to Scottish Water International's Water Services' Zero-Based Review

This report provides Administration's response to the recommendations in Scottish Water International's report in Attachment 1. Administration fully supports Scottish Water International's recommendations, and welcomes the third party perspective on ways to improve Water Services' efficiency and effectiveness. By accepting the recommendations, Water Services, with its partner business units and external stakeholders, is committed to developing a detailed implementation plan for the recommendations. Recognizing that there is further work to be done to investigate the full implementation costs, plan the most logical sequence for implementation, and assess risks and mitigation strategies, Water Services will report back to the Priorities & Finance Committee with an implementation plan within one year of this report going to Council.

Outline of the Administration's Response Tables in this Attachment:

Scottish Water International's Recommendations	Administration's Comments	Administration's Response
Information in this column is for Council's Information and reference, Column 1 repeats Scottish Water International's recommendations in Attachment 1.	Information in this column is also for Council's information, Administration's comments provide information that is not included in Scottish Water International's final report, such as: • Administration's rationale for its recommended response to the recommendations in Column 3 • Comments from other jurisdictions through the peer review and comparative practice research • Comments from other business units within The City of Calgary and/or external stakeholders that have been consulted and agree to partner with Water Services to implement the recommendations • What is already being done to implement the recommendations, including alignment with Council Priorities and corporate direction • Description of any operating or capital budget implications	This column is for Council's approval. Administration recommends to **ACCEPT** 32 of the 33 recommendations. 1 recommendation is **REFERED** to Water Resources.

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

PERFORMANCE MEASUREMENT		
Pages 13 to 20 of Attachment 1	**Efficiency Gains: N/A**	**One-time Implementation Costs: $30,000**

The six recommendations in this section aim to "strengthen the reporting of business performance measures so everyone can see their contribution to service delivery and improvement." These recommendations suggest improvements to the key performance measures used by Water Services' management team, as well as the business processes to collect and analyze the data, and make it visible and meaningful to all employees.

Scottish Water International's recommendations align with the Leadership Strategic Plan, approved by Council September 2014. The Leadership Strategic Plan, as part of the Integrated Performance System, introduced the use of Results Based Accountability™ to measure the effectiveness and efficiency of City services. The recommendations align with RBA's principles of making performance measures and processes simple and useful, and focused on The City of Calgary's contribution to the well-being of Calgarians.

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
1. Dashboard Reporting (page 16) Rename the dashboard, introduce more customer-focused measures, introduce measures related to the Zero-Based Review process and other continuous improvement initiatives, make it clear what improvement looks like, move to report on a monthly basis, and include performance measures as a standing item on meeting agendas.		Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

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2. Benchmarking (page 17) Review measures supplied for Ontario Municipal Benchmarking Initiative (OMBI) and National Water and Wastewater Benchmarking Initiative (NWWBI).	• Comparative benchmarking data is part of the overall corporate strategy to improve efficiency and effectiveness in the delivery of City programs and services. Benchmarking promotes learning and continuous improvement in service delivery, and aligns with Council's Priority to be a well-run city. • The City actively participates in OMBI and the National Water and Wastewater Benchmarking Initiative, and will continue to work with these organizations to ensure that the resources required for data collection are optimized.	Accept
3. Visibility of Data and Performance Opportunities (page 17) Link all performance measures to the bigger picture, make performance data visible, and focus reports on the intended audience.		Accept
4. Develop an Overall Performance Measure (page 18) Develop a set of customer focused measures that can be grouped together to form a single performance score.		Accept
5. Set Internal Targets (page 18) Owners of individual performance measures should be set increasing annual targets over the four year period to 2018. These can be tied into personal objectives. This will enable to business to clearly track and measure performance on an on-going basis.	• As part of the Leadership Strategic Plan, Human Resources will be reviewing The City's approach to individual performance evaluation. Water Services will align with this corporate approach.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
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6. Technology and Performance Measure Improvement (page 18) Create a data agenda, use a reporting tool, and build a single repository for reports.	• Using a reporting tool will require investment in information technology.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

JOB PLANNING: Trenchless Technology		
Pages 21 to 26 of Attachment 1	**Efficiency Gains: $1.0 to $2.0 million**	**One-time Implementation Costs: $500,000**

The four recommendations in this section aim to position Water Services "to be a leader in utilising technology for the repair and maintenance of the sanitary and water mains network." Trenchless technology includes various approaches and equipment that would allow Water Services to maintain and repair underground utility infrastructure with minimal disruption to the roadway and citizens.

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7. Adoption of Trenchless Technology (page 24) Reduce rehabilitation, repair costs and repeat visits by adopting trenchless technology where suitable. Options are the creation of an in-house trenchless crew to line, slip line or pipe burst and the procurement of an external service provider to carry out the same.	• Trenchless technology is already a tool used in the overall delivery of sanitary services. Water Services sees the benefits of expanding its use as recommended. • Pursuing the option of an in-house trenchless crew will require capital investment in trenchless technology.	Accept
8. Adoption of Trenchless Technology – Reduction of Root Auger Program (page 24) By using trenchless technology the sanitary main will have been lined meaning the regular clearing of roots under the Root Auger program and number of emergency field operations call outs to clear roots are reduced.	• Trenchless technology is already a tool used in the overall delivery of sanitary services. Water Services sees the benefits of integrating its use into the root auger program.	Accept
9. Innovation - Continuously review innovation possibilities (page 24) By continuously reviewing the market and exploring adding innovative methods to current processes, Sanitary Services delivery and efficiency can potentially be improved.	• Water Services agrees with the benefits of formalizing the tracking of trenchless and other technology innovations.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
10. Innovation - Cost Sharing with Customers (page 24) Explore possibilities for cost sharing of trenchless technology with customers for private sanitary services.		Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

JOB PLANNING: Resource Optimization		
Pages 27 to 35 of Attachment 1	**Efficiency Gains: $0.6 to $1.4 million**	**One-time Implementation Costs: $800,000 plus IT costs (to be determined)**
The eight recommendations in this section aim to position Water Services "to deliver an efficient and effective service by being more proactive, through the optimization of our resources." The recommendations align crew sizes and equipment with the scope of the repair, improve coordination within Administration, and reduce the scope of work required for some jobs		

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11. Optimising Construction Crews (page 30) Optimising proactive Construction Services crews per type of sanitary replacement e.g. consider one smaller crew per area with minimal equipment (van/wheeled backhoe) to carry out small sanitary replacements/dig-ups		Accept
12. Increase spot repairs (page 30) Increase spot repairs by improving problem diagnosis processes and adopt the 'don't dig asphalt' mantra to reduce impact of street work on citizens.	**Peer Review:** • Participants agreed that digging roads is disruptive to the public, and increases costs. Although hard to do, water utilities should look for opportunities to avoid digging asphalt.	Accept
13. Decision support matrix (page 30) Agree a decision support matrix Responsible, Accountable, Consulted and Informed (RACI) matrix for scope of work between divisions to maximise effectiveness.		Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

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14. Service Level Agreement with Roads (page 30) Review the Service Level Agreement with The City of Calgary Roads Department. Should agreed upon service levels not be achieved, then Water Services and Roads may explore the use of an alternative asphalt rehabilitation subcontractor.	• Water Services and Roads coordinate their efforts to minimize disruption to Calgarians. • Roads and Water Services have a service level agreement in place for concrete rehabilitation services (2011). • Roads and Water Services agree that negotiating detailed service level agreement(s) will clarify expectations, priorities and costs. Continuing to provide excellent and cost-effective customer service will be at the centre of the agreement.	Accept
15. Support Challenges to Roads (page 31) Explore options to support challenges to Roads decisions on dig sizes and re-compacts to reduce their cost to Sanitary Services.	• Roads and Water Services agree that negotiating detailed service level agreement(s) will clarify expectations, priorities and costs, including dig-sizes and re-compacts.	Accept
16. Excavated material reuse (page 31) Explore regulations and options to reuse suitable excavated material on site to reduce recycling costs.	• Water Services has begun to investigate this recommendation.	Accept
17. Appointment route planning (page 31) Centralised appointment route planning for dedicated crews to further increase number of planned appointments for Field Services crews.	• A detailed appointment route planning system will require investment in information technology.	Accept
18. New video equipment and process (page 32) New video equipment, interface and process for Field Services crews to capture online comments and update systems automatically for viewing by the wider Water Services.	• Video equipment is currently used by Field Services and there are opportunities to expand functionality and information sharing. • New video equipment will require capital investment.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

JOB PLANNING: Customer Experience		
Pages 36 to 44 of Attachment 1	**Efficiency Gains: $0.3 to $0.8 million**	**One-time Implementation Costs: IT costs (to be determined)**

The eight recommendations in this section aim to position Water Services "to deliver the best customer experience by providing an informed and consistent customer journey." The recommendations improve the visibility of customer data and site history, enhance "first-call" information for customers and reduce customer calls, and clarify the service levels provided to all customers.

The recommendations in this section align with the Customer Service Framework which aims to advance customer service standards and practices at The City. Implementation of these recommendations will be part of Water Resources and Water Services ongoing work to develop an integrated customer service plan aligned with the commitments in Administration's Leadership Strategic Plan to better service our citizens, communities and customers by developing an overall 'Citizen First' orientation.

FOR COUNCIL INFORMATION		**FOR COUNCIL APPROVAL**
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19. Customer Data - 360^{o} Customer View (page 39) All current customer information and site history available to view within all divisions contributing to sanitary services.	• A 360^{0} customer view will be an essential element of a long-term customer service plan • Enabling a 360^{o} customer view will require investment in information technology.	Accept
20. Customer Data - Access to Customer Data (page 39) Customer data that is held outside of Water Services e.g. billing is available for viewing	• In its high-level analysis (Phase 2A of the ZBR), Scottish Water International identified "billing and collection" as a potential opportunity for improvement that was out of scope of the Water Services review to be "car parked" for the Water Resources ZBR in 2015. Therefore, this recommendation (access to customer billing data from ENMAX) will be referred to Water Resources for consideration. •	Refer

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
21. Customer Data - Centralised Appointment System (page 39) All customer appointments for planned work are received, organised and issued by a central team and appended to customer information.	• A centralized appointment system will require investment in information technology.	Accept
22. The Customer Journey - Reducing Enquiries and Self-Serve (page 40) Working with front line call handlers to improve decisions trees and with improved customer data the number of calls passed to operations for response will be reduced. Creating a self-service portal for customers will also reduce call volumes.	• A self-service portal will require investment in information technology.	Accept
23. The Customer Journey - Proactive Customer Notifications (page 40) Contacting the customer before and after attending site and giving out customer information cards when on site will improve the Customer Journey and Experience.	• Water Services will investigate how to complement its existing customer notification process to improve proactive customer notifications using other technologies, which may require investment in information technology.	Accept
24. The Customer Journey - Zero Impact for repeat private visits (page 40) By either flagging Customer/Site data so crews do not attend private visits or charge for private visits so their time is paid for, there is no impact on Water Services for repeat visits by trouble crews to private side issues.	• Water Services recognizes that this recommendation involves a change in service level for some customers, and requires consideration of customer impacts. **<u>Peer Review and Comparative Practice Research:</u>** • Participants noted that most other jurisdictions in Canada and North America do not provide utility services on private property and/or charge customers for utility work on the private side of the property line.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
25. Partnership Working - Zero Impact for Service Reuse in Water Services (page 41) Service reuse work which is outside of the scope of Water Services is charged to the customer. Agree standards to assist with this process.	• Water Services recognizes that this recommendation involves a change in service level for some customers, and requires consideration of customer impacts.	Accept
26. Partnership Working - Service Level Agreements (page 41) Negotiate Service Level Agreements for customers to assist with the Customer Experience.	• Water Services acknowledges that prior to developing a customer Service Level Agreement, other customer service initiatives need to be in place. • As a result, this recommendation will need to be implemented following other improvements to customer service, and may have a long term implementation timeframe.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

RISK BASED MAINTENANCE		
Pages 45 to 57 of Attachment 1	**Efficiency Gains: $0.5 to $0.8 million**	**One-time Implementation Costs: $85,000 plus IT costs (to be determined)**
The seven recommendations in this section aim to position Water Services "to maintain assets effectively, at the most optimum frequency, delivering both financial efficiencies and 'best in class' asset management." A risk based approach is targeting maintenance resources to assets where there is a risk to customers and the triple bottom line – social, environmental and economic risks. Risk is the consequence of an event (e.g. impact of a breakdown or failure) and the probability that an event will occur.		

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
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27. Dead End Mains Flushing (page 49) Whilst it does not appear cost effective to close out existing dead end mains (loop), it is important to work with UDI, in order to develop a best practice approach and that every opportunity is taken to close the loop on new mains, thus not adding to the current burden.	• The City of Calgary has informed the Urban Development Institute (UDI) of this recommendation. • Dead end mains do not align with best practices for the water distribution system. Dead ends create water quality concerns and service disruption for customers. **<u>Peer Review and Comparative Practice Research:</u>** • All other benchmarked cities reported that they work with their local development industry to limit or loop dead end mains in new communities. • Peer review participants emphasized that Calgary should purse best practices such as looping and easements in walkways/ corridors.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
28. Valve Survey (page 50) Devise decision matrix to determine asset criticality in order to optimise valve survey programme (need to negotiate with Fire Underwriter's survey dependency). Develop a risk scoring matrix in order to produce an optimised plan of categorised zones. Determining categories include, but are not limited to; Residential, Business, Special Needs, Hospitals, Restricted Access areas. Use optimised plan to deliver revised programme.	• The Fire Underwriters Survey (FUS) classifies municipal fire protection programs relative to fire risk and is one of several factors used in the development of property insurance rates. The FUS assesses Water Supply (30% of the rating), including the maintenance of valves. • In implementing this recommendation, Water Services will work with Fire to ensure The City upholds its high FUS rating. **<u>Peer Review and Comparative Practice Research:</u>** • Most jurisdictions cycle their valves more frequently (all valves in a 2-5 year period) than in Calgary (5 years), which may indicate that there is less of an opportunity to further optimize the program in Calgary.	Accept
29. Air Valves (page 50) Develop electronic data capture and visibility of Waterfront GIS system. Devise decision matrix to determine asset criticality in order to optimise the programme. Devise mechanism to measure plan attainment.	• Electronic data capture and visibility will require investment in information technology.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

FOR COUNCIL INFORMATION		FOR COUNCIL APPROVAL
Scottish Water International's Recommendations	**Administration's Comments**	**Administration's Response**
30. Pressure Reduction Valves (page 51) Devise decision matrix to enable optimisation of programme with an outcome of implementation of partial or complete system monitoring capability.	• Partial or complete system monitoring will require investment in equipment and information technology.	Accept
31. Risk Based Maintenance (page 52) Opportunities / techniques applied to the asset groupings. Risk Based Maintenance is a comprehensive and site specific plan of Cost/Risk optimised maintenance tasks, frequencies, and techniques. Techniques include, spares holding, task schedules and labour saving devices. The plan should aim to improve serviceability of assets and make the most economical use of maintenance resources.	• Scottish Water International has assessed Water Services' risk based maintenance maturity level as low "advanced" (wastewater) to "advanced" (water treatment and transmission). Water Services is committed to advancing the use of risk-based maintenance to an "expert" level. • Risk based maintenance may require investment in information technology. **<u>Peer Review and Comparative Practice Research:</u>** • Other jurisdictions are using risk-based maintenance (or similar) approaches, and reported positive results, such as reducing unplanned maintenance and extending asset life. • Cost savings may be limited as risk based approaches could result in more planned maintenance, and the process can be resource intensive (internal employees and external consultants).	Accept
32. Asset Master Plans (page 52) Opportunities / techniques applied to the asset groupings. Asset Master Planning is an optimised lifecycle plan that will define the inspection, monitoring, maintenance, and refurbishment and replacement strategies for selected asset types or groupings.	• Water Services will work with Water Resources (Infrastructure Planning) to implement this recommendation. • Asset master plans may require investment in information technology.	Accept

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33. Condition Based Assessment (page 53) Opportunities / techniques applied to the asset groupings. Condition monitoring is the process of monitoring the performance of a machine against a measureable parameter. Monitoring can either be a physical check or a monitoring device used to determine the optimum frequency at which to maintain an asset.	• Condition based assessment may require investment in equipment and information technology.	Accept

Administration's Response to Scottish Water International's Water Services' Zero-Based Review

SCALABILITY		
Pages 58 to 59 of Attachment 1	**Efficiency Gains: to be determined**	**One-time Implementation Costs: to be determined**
Scottish Water International reviewed in-depth three key focus areas with the combined 2013 operating expenditures for the three focus areas reviewed in-depth is $48M or approximately 32% of the total Water Services operating expenditures ($150M in 2013). These areas were selected as they provided the greatest opportunity for efficiency and effectiveness improvement, and enabled a detailed understanding of the opportunities for improvement that could be then applied to other areas in Water Services. This "scalability" relates to additional services that make up $60M or approximately 40% of the total Water Services operating expenditures ($150M in 2013).		

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Scalability (page 58) Water Services will further consider the scalability of the recommendations, including the efficiency and effectiveness benefits, across the sub-services where this is appropriate during the implementation planning phase of the ZBR.	The applicability of the recommendations and magnitude of efficiency and effectiveness improvements will be assessed by Water Services as part of implementation planning for the Zero-Based Review results.	Accept

ADMINISTRATION'S RESPONSE TO ITEMS IDENTIFIED IN THE HIGH-LEVEL ANALYSIS TO BE INVESTIGATED OUTSIDE OF THE WATER SERVICES ZBR

Other potential efficiency and effectiveness improvements were identified by Scottish Water International in the high-level analysis but were not reviewed in-depth. These items will be considered outside the service review process as follows:

Potential Opportunity for Improved Efficiency and/or Effectiveness	Consideration Outside of Water Services Zero-Based Review
Succession planning	Included in the 2015-2018 Business Plan and Budget
Regulatory standards and dialogue	Water Services will continue its ongoing dialogue with regulators related to regulation development and principles.
Fleet optimization	Included in the 2015-2018 Business Plan and Budget
Calgro and biosolids management	Action is being taken through The City's Biosolids Master Plan and the Organics and Composting Program
On-site electricity	Will be considered as part of the Water Utilities energy management plan currently under development
Lease opportunities on City-owned land	Will not be pursued at this time. The peer review panel did not support this area for further analysis as benefits have not been realized in other municipalities.