

Administration's Response to the Water Resources Zero-Based Review – Report from Scottish Water

International

This attachment provides Administration's response to the recommendations in Scottish Water International's Zero-Based Review report on Water Resources.

Method and Scope: The Water Resources review began with a high level review of all of Water Resources operations, to identify areas with the greatest potential for efficiency and effectiveness gains. The results of the review and the process are described in Attachment 4. The three areas identified for the in-depth review were:

- Service Levels for Wastewater;
- Capital Delivery Efficiency;
- Data Management and Analytics.

All (100%) of the annual capital budget of \$350 million was included in the in-depth review for this ZBR. Of the \$474 million Water Resources operating, the majority (\$374 million) includes such costs as franchise fees, principle and interests costs on debt as well as depreciation cost, all of which could not be included in the ZBR except through the review of total capital expenditures noted above. The portion of the annual Water Resources operating budget that is relevant to a ZBR is approximately \$100 million. Of this amount \$19 million was included in the in-depth review.

An external consulting firm, Scottish Water International (SWI), was retained to undertake the in-depth review of the three specified areas. SWI's complete report is provided as Attachment 1. It is extensive, including consideration and evaluation of a variety of options, with an outline of benefits and implementation considerations for each business case or business policy document. There are total of 17 recommendations, in four business cases plus a covering report.

Summary of Response: This Attachment provides a summary of SWI's recommendations, and Administration's proposed response to each, including rationale and some implementation considerations. Administration recommends that Council accept all 17 recommendations.

Expected Benefits:

A summary of the expected benefits is provided in the table below. The stated benefits reflect Administration's response to the recommendations, which are generally consistent with the SWI's recommendations, but differ in a couple of specific instances (described further below).

Business Case	Estimated Annual Financial Benefits (\$ millions)	Comments/ Non Financial Benefits
Customer Engagement	n/a	The business case on Customer Engagement supports the Wastewater Levels of Service, above.
Levels of Service Framework	n/a	<p>This business case closely aligns with The City's initiative to place a greater emphasis on citizens/customers needs and preferences as the starting point for determining service levels and, through that, investments in services including capital investments. This business case, in combination with the Customer Engagement business case, provides a clear and powerful direction for the entire water utility to identify customer preferences that will drive decision making around the levels of service that should be provided. Decisions around the levels of service will then drive the amount and type of future capital investments in a way that is better aligned to customer needs and preferences.</p> <p>The process of determining appropriate levels of service requires a number of steps, which could not be completed within the timeframe of the ZBR. Administration has therefore included an implementation plan with this ZBR report indicating work that will be done over the next year, including a report to Council by the fall of 2017 that provides options for waste water levels of service (Attachment 3).</p>
[Capital] Investment Portfolio	\$7.0-\$10.5	This business case includes a number of improvements to capital project management methods to more efficiently manage capital projects maintain focus, manage scope. The projected annual capital cost avoidance is expected to be fully realized by 2022.
Capital Delivery Models	\$10.0	The recommendations, once fully implemented, will better position Water Resources to improve the value for money it (and therefore its customers) receives for their capital investments. The recommendations align with Supply's initiative to develop different project delivery models across the organization, and are scalable for other capital delivery programs at The City. As such, the estimated financial benefits may grow well beyond those outlined here for Water Resources and should have a positive impact on The City's capacity to address its capital project costs over long term and in other service areas.
TOTAL	\$17 – 20.5	Potential annual capital cost avoidance by 2022

Consistent with the approved ZBR method, Water Resources will report back to the Standing Policy Committee on Utilities and Corporate Services with a full implementation plan for all recommendations, within one year of this report being approved by Council. The capital cost avoidance benefits identified will have an operating budget impact. On average, Water Resources will require \$12.0 million less in annual utility rate revenue to cover principle and interest payments if an annual capital savings of \$20.0 million is realized

How to read this document

The remainder of this attachment follows the structure shown below.

The Opportunity (for information) <i>Brief description of the opportunity that was identified in the first phase of the ZBR.</i>	
Scottish Water's Recommendation (for information): <i>Verbatim text of the consultant's recommendation.</i>	Administration's Response (for approval) <i>'ACCEPT', 'DO NOT ACCEPT', or 'ACCEPT WITH AMENDMENT'</i>
Overview of Consultant's Proposed Recommendation (for information): <i>Summary of the recommendation and supporting rationale, cross referencing page numbers in Attachment 2 if more detail is required.</i>	Administration's Comments (for information) <i>Administration's rationale for the response above.</i>

1. Customer Engagement Strategy The Opportunity: To provide Water Resources with a greater capacity to make more informed choices on future investment which are linked to customer priorities, expectations and perception of value.	
Scottish Water’s Recommendation (for information): <i>1.1 In synergy with the Levels of Service Framework, it is recommended that the Water Utility develop a water-specific value proposition to align and support The City’s vision. The proposition would concisely encapsulate the strategic aim of the Water Utility looking forward. The strategy should be customer and employee focused, serving as a road map to improvement with a clear indication of the destination and timeline.</i> Overview of Consultant’s Proposed Recommendation (for information): Development of a value proposition statement is a foundational step in establishing customer-focussed levels of service.	Administration’s Response (for approval) <i>ACCEPT</i>
	Administration’s Comments (for information) This recommendation is an underpinning for the work needed on levels of service outlined in recommendation 2.2 and 2.3. Administration has already begun the work to implement this recommendation.

1. Customer Engagement Strategy (continued)	
<p>Scottish Water's Recommendation (for information):</p> <p><i>1.2 Create a customer forum body with the remit of ensuring that the customer voice is heard and their priorities and willingness to pay are at the heart of the price setting process.</i></p> <p>Overview of Consultant's Proposed Recommendation (for information):</p> <p>Water Resources has in-house experience of good customer engagement planning and practice for specific purposes or projects. A good example of this is the planning and engagement undertaken to inform the Flood Resiliency and Mitigation Plan and also other initiatives within Watershed Planning. There is also on-going communication with the large industrial and commercial clients.</p> <p>Customer-facing employees should be involved to share their practical experience of dealing with customers and their perception of what matters most. It is appreciated that the individual employee may only have an understanding of one line of service or a part of one line of service.</p>	<p>Administration's Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration's Comments (for information)</p> <p>Creation of a customer forum will support the development of customer-focussed levels of service.</p>

1. Customer Engagement Strategy (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p>1.3 <i>It is recommended a specialist market research service provider is engaged to work with the Water Utility to develop the existing levels of service and value proposition statement into a strategy for effective customer engagement.</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>Given the specialist nature of a customer engagement process, it is recommended that a market research service provider is commissioned to assist with the planning, execution and interpretation of results. The maximum benefit for minimum cost will be achieved by good planning of the extent and target audience of the project.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Administration agrees that market research expertise should work with Water Resources to develop the existing levels of service and value proposition statement into a strategy for effective customer engagement. However, Administration will first review the extent to which market research expertise is available within City Administration prior to determining a course of action relative to conducting market research. In addition, Water Resources will work with Customer Service and Communication to ensure that Council’s Engage Policy is implemented throughout the implementation of this Customer Engagement strategy.</p>

2. Levels of Service Framework

The Opportunity: To provide a clear baseline and assessment of the current levels of service offered by the Water Utility and evaluate what service level options are appropriate considering customer expectations, varying best practices for service costs and service quality factors for public utilities.

Scottish Water's Recommendation (for information):

- 2.1 *It is recommended that the Water Utility develop a water specific value proposition to align and support The City's vision. This proposition would concisely encapsulate the strategic aim of the Water Utility looking forward. The strategy should be customer and employee focused, serving as a road map to improvement with a clear indication of the destination and timeline.*

Overview of Consultant's Proposed Recommendation (for information):

Reviewing and revising levels of service will allow Water Resources to identify differences between customer expectations and actual service levels based on value to customers. This approach will look at the levels of service that are required to meet regulatory requirements and customer needs, taking into account the impact on service costs and rates

Determination of the appropriate service levels for the various lines of business within the Water Utility could result in either a reduction or increase in level of service (or scope). This decision needs to reflect customer priorities and willingness to pay, since some service levels, while desirable, may be too expensive for some or most customers.

Development of a value proposition statement is a foundational step in establishing customer-focussed levels of service.

Administration's Response (for approval)

ACCEPT

Administration's Comments (for information)

This recommendation is an underpinning for the work needed on levels of service outlined in recommendation 2.2 and 2.3. Administration has already begun the work to implement this recommendation

2. Levels of Service Framework	
<p>Scottish Water’s Recommendation (for information):</p> <p>2.2 <i>It is recommended that the Water Utility adopt a small number of customer-facing, key performance indicators with associated levels of service which will reflect true performance in wastewater related to customer outcomes.</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>Development of key performance measures is also foundational to the process of establishing customer-focussed levels of service.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Administration agrees that customer facing, key performance indicators with associated levels of service are an integral part of properly reviewing and revising levels of service. As such, Attachment 3, which forms part of Administration’s response, is an outline of an implementation plan that includes the development of key performance indicators and places emphasis on understanding the customer as a basis for making capital investment decisions.</p>

2. Levels of Service Framework	
<p>Scottish Water’s Recommendation (for information):</p> <p>2.3 <i>It is recommended that:</i></p> <ul style="list-style-type: none"> <i>The proposed wastewater levels of service are prioritised as an immediate business need for reporting and base lining current performance.</i> <i>The base lining of current performance needs to include financial and budget information to fully understand the cost of providing current levels of service.</i> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>This is the core work of establishing service level options linked to cost impacts, which can be used in consultations and engagement with customers.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>The process of determining Levels of Service requires a number of inputs, including performance measurement, data development and customer engagement, all of which could not be completed within the timeframe of the ZBR. Therefore SWI has outlined a proposed level of service framework and expected outcome, and Administration is providing a commitment to Council, including a schedule, for completing this work and reporting back to Council by September 2017.</p> <p>This implementation plan and schedule is provided in Attachment 3 of this report. This work will:</p> <ul style="list-style-type: none"> Develop the baseline for current levels of service; Identify options to adjust levels of service; Incorporate customer information (including customer expectations, priorities and willingness to pay); Develop a plan to extend levels of service work to Water and Drainage; and <p>Report to SPC on UCS with a report that presents Levels of Service findings and long term opportunities to embed levels of Service into the Action Plan cycle.</p>

3. [Capital] Investment Portfolio Management The Opportunity: To identify and apply best management practices in planning, managing and monitoring the identification and project management of capital projects with specific focus on cost, time and outcomes	
Scottish Water’s Recommendation (for information): 3.1 <i>It is recommended that a 4 year internal business plan and detailed investment portfolio is developed showing a profiled plan (across the 4 years) of spend, time (milestone measures/ stage gates) and project outputs which aligns with the Council approved Action Plan. The detailed investment portfolio should be supported by the 10 year Investment Plan.</i> Overview of Consultant’s Proposed Recommendation (for information): In addition to preparing an Action Plan, SWI has recommended that the business prepares a detailed internal business plan that outlines how the Action Plan will be operationalized. This internal business plan should be achievable but detail the strategies and opportunities the business will follow in order to outperform the Action Plan. The internal business plan should set out the “Golden Thread” against which the business aligns to ensure the delivery of customer outputs. The internal business plan also provides details of resource requirements and operating and capital budgets.	Administration’s Response (for approval) ACCEPT
	Administration’s Comments (for information) Administration views this as a critical step in effectively managing capital project costs and in supporting stage gating (Investment portfolio management recommendation 3.5). This recommendation has been communicated with Infrastructure Calgary to consider scalability to other capital infrastructure portfolios.

3. [Capital] Investment Portfolio Management (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p>3.2 <i>It is recommended that the responsibility and accountability for developing the investment portfolio and subsequent tracking and reporting is given increased focus within the business</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>Generating a 4 year investment portfolio is a significant task and requires the acceptance and approval from Water Resources management team, primarily Infrastructure Planning and Infrastructure Delivery. The process requires time and should start at least two years in advance with increasing refinement in the lead up to Council approving the Action Plan. Establishing clear ownership and accountability will help focus the business towards developing an investment portfolio and coordinating the consolidation and prioritisation of programme delivery reflecting the demands of Water Resources, Water Services, Supply Management and external stakeholders.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Administration agrees that generating and managing a four year investment portfolio will require an increased focus on tracking and reporting along with clear ownership and accountability for outcomes linked to Water Resources’ management team.</p>

3. [Capital] Investment Portfolio Management (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p>3.3 <i>It is recommended that Water Resources develop a monthly reporting cycle in order to facilitate timely performance reporting of the investment portfolio, programmes and projects.</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>Water Resources operates within the Corporate Project Management Framework (CPMF) and has established effective project governance and controls. However, Water Resources should continue to develop the CPMF and establish a strict monthly reporting cycle where project, programme and portfolio performance is tracked and challenged. The business completes a formal financial projection in May and September and also completes year-end accruals in December of each year. This can generate unexpected financial forecasts resulting in programmes being accelerated or slowed down and the reallocation of budgets between projects. The discipline of monthly reporting is essential in order to effectively track delivery and performance and to prevent cost shocks within the business.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Monthly capital project progress reporting is currently conducted in Water Resources. This recommendation aims to continuously improve upon this reporting. Work is currently underway to define requirements and automate reporting to improve efficiency and timeliness of information.</p> <p>This recommendation has been communicated with Infrastructure Calgary to consider scalability to other capital investment portfolios.</p>

3. [Capital] Investment Portfolio Management (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p><i>3.4 Water Resources should increase financial awareness and operational support of business activities. This finance support is primarily required in the support and development of business processes, controls and reporting and raising the financial competencies of project managers.</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>An opportunity exists to improve financial awareness within the business for staff below manager level. This partly reflects the level of financial support and engagement provided within Water Resources. Significant investment is being generated with some complex commercial contracts and risks. Investment sums are being paid to contractors and financial challenge and awareness should therefore be strong.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Currently the Finance Manager is an active participant in the Water Management Team and provides support that is co-located and dedicated to Water Resources.</p> <p>Financial training for Leaders and Project Managers is needed to support new budgeting and investment management processes. This training will provide a better understanding of how actions and decisions can impact the Utilities ability to deliver customer outcomes.</p>

3. [Capital] Investment Portfolio Management (continued)

Scottish Water's Recommendation (for information):

3.5 It is recommended that continued development of stage gating should be a priority in order to increase the controlled delivery of projects and to set performance and milestone targets.

Overview of Consultant's Proposed Recommendation (for information):

The development of an internal business plan and investment portfolio needs to be supported by stage gateway project approvals.

Stage gating is a process whereby decisions can be made, during key points ("gates") during a project with regard to how or even whether the project should continue, based on information available at the time, including risks, availability of resources etc. Stage gating follows the over-arching control framework set out by Council, the Corporate Project Management Framework (CPMF) and establishes project accountability. This will provide an effective overall control framework for project delivery and be a key enabler in tracking project progress within the investment portfolio. The stage gate approvals process should ensure that business decisions are taken in a timely manner, are subject to appropriate challenge and are approved by the relevant stakeholders.

Administration's Response (for approval)

ACCEPT

Administration's Comments (for information)

Stage gating was implemented in the Utilities in June 2016 and the process will be reviewed periodically and improvements will be made as needed to ensure the benefits of this recommendation are fully realized.

This recommendation has been communicated with Infrastructure Calgary to consider its application to other capital projects and programs.

3. [Capital] Investment Portfolio Management (continued)

Scottish Water's Recommendation (for information):

- 3.6 *It is recommended that Water Resources recognises risk at different levels; portfolio, programme and project and assigns accountability for the utilisation and drawdown of these risk contingencies within the management team.*

Overview of Consultant's Proposed Recommendation (for information):

Water Resources recognises project risk within delivery projects but does not allocate risk contingencies to programmes or the portfolio. Project risk contingencies are currently set at a relatively high level of 10% and are used to cover a number of cost aspects related to project delivery including increased scope, inflation increases and inefficiencies in delivery. There does not appear to be strong control over the utilisation or consistency in project risk contingencies and there is no recognition of programme or portfolio risks. This approach to risk management allows project scope creep and exposes the business to capital inefficiencies and delivery risk. The process for the release of programme risk to project budgets should be simple and timely but importantly be subject to independent challenge, increased visibility and business prioritisation.

Administration's Response (for approval)

ACCEPT

Administration's Comments (for information)

Administration concurs with this recommendation. It has also been communicated with Infrastructure Calgary to consider its application to other capital projects and programs.

3. [Capital] Investment Portfolio Management	
<p>Scottish Water’s Recommendation (for information):</p> <p>3.7 <i>It is recommended that formal monthly reporting is implemented to provide Water Resources with confidence and predictability of portfolio performance and to increase stability in capital delivery</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>The creation of an internal business plan, investment portfolio, stage gateways and risk management is a substantial change in the way Water Resources manages its capital investment programme. Water Resources have made strong progress in developing their processes to support capital tracking and reporting and this section focuses on the continual improvements and development of initiatives already in progress.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Monthly capital project progress reporting is currently conducted in Water Resources. This recommendation aims to continuously improve upon this reporting by developing and automating the reporting system, processes and tools. Work is currently underway to define requirements and automate reporting to improve efficiency and timeliness of information.</p>

3. [Capital] Investment Portfolio Management	
<p>Scottish Water’s Recommendation (for information):</p> <p>3.8 It is recommended that central project and cost data store is implemented to provide Water Resources with confidence and predictability in project costing and to increase stability in capital programs</p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>As stated in Section 3 of this business case, constructing an investment portfolio requires a baseline project cost estimate to be established. At present, estimating involves individual project managers searching out tendered rates from previous tenders and interpreting and applying them as best they can. These rates need to be collated and stored in a central database to enable consistent estimating and to greatly reduce the time for project estimating. The need for a central project and cost data store has been recognised in the UEP Data Foundation Strategy supporting both Infrastructure Asset and Capital and Financial Planning.</p>	<p>Administration’s Response (for approval)</p> <p><i>ACCEPT</i></p>
	<p>Administration’s Comments (for information)</p> <p>Administration concurs with this recommendation</p>

4. Capital Delivery Model

The Opportunity: To improve the value for money Water Resources receives for their capital investments and increase The City's capacity to address its capital investment requirements over long term, by applying improved processes for capital procurement and delivery. The recommendations in this business cases will increase value for money and improve the effectiveness and efficiency of the management of the supply chain for all Water Resources capital projects.

Scottish Water's Recommendation (for information):

4.1 It is recommended that a profiled 4 year investment portfolio is developed with the involvement of Supply Management

Overview of Consultant's Proposed Recommendation (for information):

A pre-requisite to considering options around delivery models is to have an understanding of what is to be delivered, when it is to be delivered and what the delivery risks are. Presenting a complete, long term picture to the market is an essential requirement to gain supplier interest and collaboration.

Administration's Response (for approval)

ACCEPT

Administration's Comments (for information)

This recommendation allows Supply to provide better, more value-added service and support to Water Resources projects. Leveraging Supply Management's expertise through early engagement allows Supply to bring forward market trends as well as more procurement options in advance.

This approach can be extended to other capital/infrastructure processes across The City.

4. Capital Delivery Model (continued)	
<p>Scottish Water's Recommendation (for information):</p> <p>4.2 <i>It is recommended that Water Resources plans and procures investment across the 4 year period rather than limiting itself to individual years</i></p> <p>Overview of Consultant's Proposed Recommendation (for information):</p> <p>Water Resources has adopted an approach where projects can only be tendered within a self-imposed annual approved spending limit. These limits have artificially broken up the investment plan making delivery overly complicated and inefficient. Setting an annual investment target should not prevent the business from planning and procuring contracts across the full 4-year investment portfolio.</p>	<p>Administration's Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration's Comments (for information)</p> <p>This recommended approach will help Administration in managing its capital budget. Once implemented, this recommendation would not affect the scope of the capital budget that is approved, but it will affect the cash flow of the approved capital budget within Water Resources and within the four-year cycle.</p> <p>Currently Administration is exploring updating the Budget Reporting Policies in relation to authorizations for capital budget cash flows. Administration, through Infrastructure Calgary, is planning to bring a report and proposed policy change to PFC in September. The proposed changes would provide more authority for Administration to have discretion on timing changes of project budgets and therefore allow for more flexibility to accommodate for changes in timing or plans that might accommodate planning and procurement.</p>

4 Capital Delivery Model (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p><i>4.3 It is recommended that Supply Management resources are embedded within Water Resources in order that their skills and experience can be applied to the most effective mix of capital delivery options for the investment portfolio</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>Embedding of a Supply Management resource in Water Resources refers, in this context, to provision of dedicated Supply Management staff resources for Water Resources, with staff being co-located with Water Resources at least some of the time.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Supply Management has provided dedicated resources to UEP to support the delivery of the capital program.</p> <p>Water Resources and Supply Management will continue to work toward full implementation of this recommendation to embed resources, as described in the box to the left. This approach will be consistent with Supply Management’s 5 point plan presented to Council on 2016 June 27 (C2016-0561).</p>

4. Capital Delivery Model (continued)	
<p>Scottish Water’s Recommendation (for information):</p> <p><i>4.4 It is recommended that Water Resources use different capital delivery models in order to improve effectiveness and efficiency of capital delivery</i></p> <p>Overview of Consultant’s Proposed Recommendation (for information):</p> <p>The capital delivery models that may be appropriate for Water Resources are:</p> <ul style="list-style-type: none"> - Project Bundling - Framework Arrangements - Design and Build Arrangements - Supplier Collaboration - Partnership & Joint Venture Arrangements <p>There is a potential savings of \$10 million in capital cost avoidance that could be achieved through the use of different capital delivery models by 2022.</p>	<p>Administration’s Response (for approval)</p> <p>ACCEPT</p>
	<p>Administration’s Comments (for information)</p> <p>Administration will work to implement the different capital delivery models outlined in the recommendation, where appropriate, for each type of project, considering risk, budget and delivery timelines.</p> <p>Economic conditions are a significant driver of capital cost and are likely to affect all capital delivery models.</p> <p>This recommendation builds on current and future City delivery models such as requests for standing offer, construction management, design build and bundling strategies.</p> <p>This recommendation is consistent with work underway in Infrastructure Calgary.</p>