

Staff Report



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| To | Committee of the Whole |
| Service Area | Corporate Services |
| Date | Monday, June 7, 2021 |
| Subject | Capital Program Resourcing Strategy |

Recommendation

That the Capital Program Resourcing Strategy, as described in report Capital Program Resourcing Strategy dated June 7, 2021, be approved.

Executive Summary

Purpose of Report

To provide Council with the findings of a review regarding the growing unspent capital budget carrying forward each year and to seek Council approval of a sustainable strategy to address the growing gap in capital project budgeting and delivery.

Key Findings

Over the past five years, a trend has started to emerge in the City's capital program. This trend shows that while capital budgets are growing, capital spending remains flat. As a result, the unspent capital budget carried year-over-year has increased from \$163 million in 2016 to \$233 million in 2020. Significant analysis to determine the root cause of this situation has been completed. In addition, an assessment to identify the long-term risk implications resulting from not addressing this trend was completed. This work found that:

- As asset management practices are maturing, and the City has a detailed understanding of the state of infrastructure and the investment required to maintain these assets in safe working order, capital budgets over the next 10 years are growing by over 150 per cent compared to the past 10 years. People resources to deliver this growing plan have not been incorporated into the current [Infrastructure Renewal \(IR\) Strategy](#).
- There are increasing demands on Project Managers (PMs) as the City has implemented enhanced internal controls for capital project delivery in response to the 2015 Project Management Audit. An estimated 35 per cent of a PM's time is spent on executing best practices arisen from the audit.
- There are further increasing demands on PMs from legislative changes, grant requirements from other levels of government and increasing expectations for project stakeholder engagement and public communication.
- The City currently has 22 temporary PMs on staff to augment permanent PM capacity. It has been determined that this is an unsustainable and costly approach to capital plan execution.

- It is estimated that the City will need up to 31 permanent PMs over the next five years, up to 10 positions that are required to directly support capital projects (e.g., engineering inspectors and surveyors) and up to 12 indirect positions throughout the corporation including communications, procurement, legal, and accounts payable.

Capital spending trends from 2016 to 2020 are indicative of the future and human resources for capital project delivery are needed to mitigate against these negative trends.

Considering the City's IR Strategy and growing capital budget requirements, the growing unspent capital budget, the risks of using temporary PMs and the increasing demand on existing PMs, the City requires a plan to ensure staffing levels are appropriate to deliver critical capital projects.

The proposed Capital Program Resourcing Strategy would increase the City's project delivery capacity by 40-90 projects annually and an ability to address an additional annual spending of \$100-\$225 million, which would make progress towards addressing the City's IR backlog and delivery of other key capital projects. The strategy consists of two key parts:

- The conversion of 16 of the existing 22 temporary PMs to permanent positions through a net zero budget reallocation to stabilize current workforce and project delivery.
- The addition of up to 37 permanent capital execution roles in the organization through a five-year strategy that broadens the scope of the current IR Strategy. These positions would be presented and approved through normal budget process and be accommodated within the current IR funding strategy by the reallocation of up to one per cent annually of the total IR capital transfer.

Financial Implications

There are financial risks of not acting on the emerging capital plan trends outlined in this report. The City's current temporary PM solution is not creating a stable or efficient environment to execute capital projects.

Staff are recommending a financial strategy that does not require net new tax or rate funding beyond the IR funding strategies that Council has endorsed. The proposed financial strategy is prefaced on a broader definition of IR sustainability; one that includes the human resources to execute the capital plan and not just the capital construction funding. For this reason, staff are recommending the reallocation of up to one per cent of the current operating transfer to IR capital reserve funds annually as a solution to close the people resource gap and maintain progress towards capital funding sustainability by 2040.

The total cost of the strategy is estimated to be \$6.4 million, which will be accommodated through a reallocation of operating budgets over a period of five years. The current strategy to increase capital IR funding on an annual basis will not be changed, the human resource strategy will be funded within this endorsed plan.

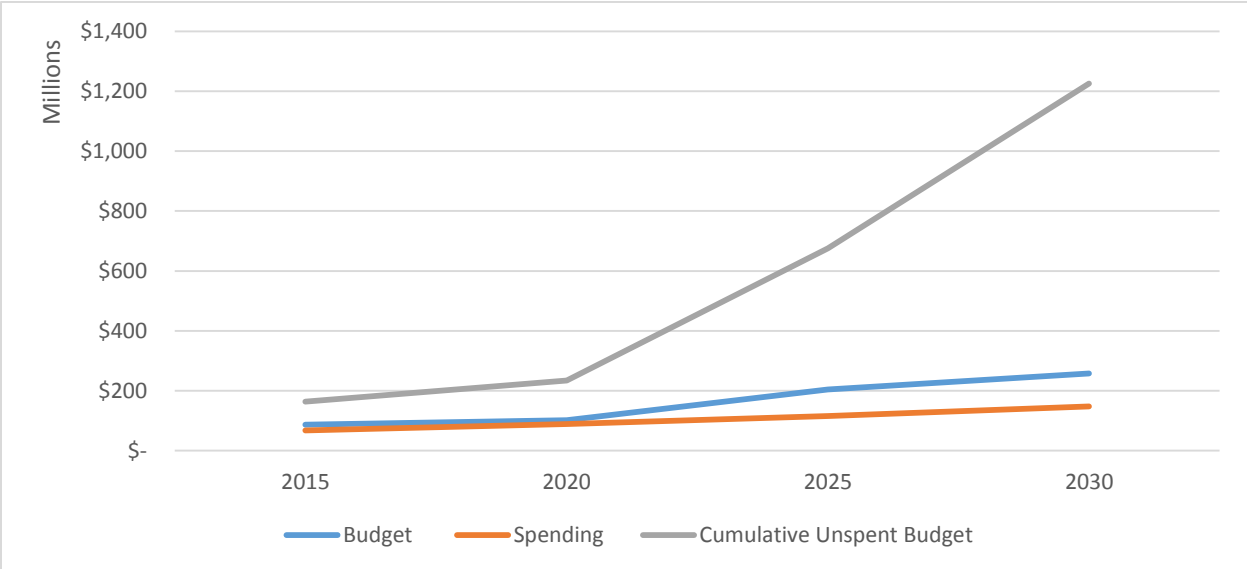
Report

The Current State

Over the past five years, a trend has started to emerge in the City’s capital program; while capital budgets are growing, capital spending is remaining flat. As a result, the unspent capital budget carrying over year-to-year has increased from \$163 million in 2016 to \$233 million in 2020. Further, there are a growing number of project budgets that have limited capital spending activity 12 to 18 month’s post-budget approval. With the average annual capital budget forecasted to double over the next five years to achieve identified needs in the City’s [Corporate Asset Management Plan \(CAMP\)](#), there is a requirement for corresponding levels of funding to follow suit to mitigate the above-mentioned unspent capital challenges.

Figure 1 below shows that over the past 10 years, the average budget has increased by over \$21 million while the average spending has increased by only \$15 million. This has led to an increase in the level of unspent capital budget carried over at year’s end by \$70 million. The next five-year average budget is estimated to be \$204 million per year; double the past five-year average.

Figure 1 Growing Budget to Spending Gap



The City has completed an analysis to determine the root cause of this trend and conducted a risk assessment to identify the long-term risk implications resulting from not addressing this situation.

Moving to a Sustainable Infrastructure Renewal Program Requires More Human Resources

In 2015, City Council embarked on improving the City’s long-term financial sustainability. This work involved and included an improved Reserve and Reserve Fund Management Policy (2015-2017), approval of the CAMP (2016) and implementation of an IR Strategy (2017). One of the key drivers behind this enhanced focus on sustainability was the developing global situation relating to aging infrastructure and the resulting financial impacts on governments around the world. The City’s first CAMP, helped to clearly articulate the City’s state of infrastructure, identified long-term funding needs by determining the estimated asset backlog, and set sustainable funding targets by service.

The City's IR Funding Strategy has one main goal: ensuring annual capital funding levels are sufficient to meet the replacement and renewal needs of all City infrastructure in order to minimize health and safety risk to our community and employees. The City is making positive progress towards this goal as demonstrated through the first four years of the strategy:

- Achieved annual increase in IR funding of \$18.0 million
 - Tax supported \$8.4 million
 - Water rate supported \$2.4 million
 - Wastewater rate supported \$2.1 million
 - Stormwater rate supported \$5.1 million

- Achieved cumulative increase in IR funding of \$55.2 million
 - Tax supported \$19.6 million
 - Water rate supported \$11.0 million
 - Wastewater rate supported \$6.7 million
 - Stormwater rate supported \$17.9 million

As communicated during the 2021 budget, this is a long-term strategy and sustainable funding levels are expected to be reached in approximately 20 years.

As this funding increased, sequentially larger capital budgets have followed as the City moved to address over \$300 million in aging infrastructure projects that are identified in the CAMP. Table 1 shows the historical spending alongside future-looking budgeting associated with asset renewal of the City's core assets. This table demonstrates the increasing work plan. For this sample of core assets alone, which excludes all growth work as well as IR work for corporate facilities, transit, emergency services, and recreation, parks and culture requirements are increasing by 150 per cent on average.

Table 1 Core Asset IR Growth Trend

| | Historical 10 Year Average (Actuals) | Future 10 Year Average (Budget) | % of Current Replace- ment Value (future average) | Rate of Change | 10-Year Trend |
|-------------------|---|--|--|---------------------------|--------------------------|
| Roads, Bridges | \$10,454,126 | \$18,452,668 | 1.5% | 76.5% | ↗ |
| Water | \$9,306,169 | \$25,252,860 | 3.3% | 171.4% | ↗ |
| Wastewater | \$7,319,063 | \$22,022,247 | 3.2% | 200.9% | ↗ |
| Stormwater | \$2,672,032 | \$8,738,022 | 1.0% | 227.0% | ↗ |
| Totals | \$29,751,389 | \$74,465,797 | 2.1% | 150.3% | ↗ |

While the City has been focused on shoring up the sustainable funding strategies to finance this growing capital requirement, a key finding has been that the human resources have not kept pace. Specifically, project management (PM) resourcing and capacity has not increased in five years beyond one position approved mid-year for Corporate Energy in 2020.

Increasing Demands on PMs Requires More People Resources

PM best practice standards in project planning, stakeholder engagement, risk mitigation and execution are necessary for successful project delivery and are indicative of a modern government. This has translated into increased expectations on PM time for documentation, and better and more robust risk management and stakeholder communication practices.

The demand on PMs has increased over the past five years as a result of the [2015 project management audit](#). Since that time, the City's Project Management Office (PMO) was established and has developed robust documentation and reporting requirements. These requirements are meant to ensure the City delivers projects in accordance with accredited PM methodology thus reducing financial and legal risk to the City. A core purpose of the PMO is to improve standards and ensure the City staff are trained and follow best practices. As a result of implementing PMO practices, PMs are required to spend more time documenting project elements such as planning, scope, risks, schedule, and budget. The PMO conducted an analysis and estimates that the time required to execute projects within PMO standards is on average 35 per cent of a PM's time. This considerable time investment is important for successful project delivery, but equally important is ensuring PMs have capacity to dedicate time to these practices.

In addition to the increased expectation to execute a project following best practice, PMs are facing increasing requirements that require more of their time to deliver, including:

- Increasing requirements for community communications and digital presence for bettered customer experience (e.g., story maps, web pages, and social notifications);
- Increasing engagement and stakeholder consultation requirements as a result of the City's [Community Engagement Framework](#) and from enhanced provincial and federal expectations as it relates to projects that affect or may affect Aboriginal and Treaty rights under Section 35 of the Constitution Act, 1982;
- Changing regulatory requirements such as [Ontario Regulation \(O. Reg.\) 406/19 On-Site and Excess Soil Management](#) and the [Accessibility for Ontarians with Disability Act \(AODA\)](#);
- Increasing data collection, analysis, and reporting requirements as part of the City's evolving performance-based culture; and
- Increasing grant application, agreement execution, and reporting requirements including bylaws, detailed project reporting, and coordinated communication efforts for federal and provincial governments.

Ultimately, executing to these standards requires more PM time than in the past. A second key finding of this report is that while these requirements have been increasing, it is usually in isolation of each other. That is to say, those such requirements are done through policy or legislative changes that did not quantify the real, full, and cumulative impact of enhanced practices. These changes

collectively have strained the capacity of PMs and created the need to find a sustainable, long-term solution.

Current Temporary PM Resourcing Practices

Historically, the City has defaulted to using a significant number of temporary, full-time PMs to fill its capacity gap.

As outlined in the second [2020 Tri-annual Capital Variance Report](#), as of October 2020, the City had 12 contract PM positions on staff, delivering a large part of the capital plan. Since October 2020, the number of temporary PMs has now grown to 22, however this figure does fluctuate with turnover and project timing. As these are not permanent positions, they are subject to turnover on average of 1.5 times per year, or two to three times within the life of a project depending on the length of the project, as people seek job security in permanent roles elsewhere.

The use of temporary PMs provides a short-term solution for capital project delivery but does not provide financial advantages to the City as temporary staff receive similar compensation and benefits as permanent employees. In addition, reliance on temporary resources has the following significant risks and disadvantages:

- Inefficiencies related to time and resources spent on frequent recruiting (hiring, human resources, training, and mentoring on City project management standards, purchasing, budget monitoring, communication, technology, and HR policies and practices);
- Business continuity concerns, such as institutional knowledge loss, when contracts are complete or when people leave mid-project;
- Incumbents often move to other opportunities prior to contract expiry, which increases the risk of project delays, traceability, cost over runs, and pressure on existing staff that are already at capacity; and,
- Temporary contracts tend not to draw a level of experience that is often required of PMs, which can have negative impacts on project delivery and increase project risks.

Further, the current temporary staffing situation is not considering the broader indirect impacts of a growing capital program on services like human resources, finance, communications, and legal. Additionally, the capital program relies on a number of indirect technical positions, such as contract administrators, designers, and inspectors, that are not addressed through the temporary staffing approach. It has been determined that these indirect factors are also contributing to project spending levels remaining relatively flat since 2016.

These temporary positions do not get included in the City's annual budget full-time equivalent (FTE) position disclosure and are being funded through the capital project budgets. This is the appropriate accounting treatment of project specific staffing as identified through the recent internal audit of project management processes.

Assessment of Options

Given the risks and concerns identified, staff believe a whole-systems approach to addressing the capacity concerns within the entire capital program delivery process is the best solution. In determining this best solution and approach, staff considered three options:

1. Maintain current staffing capacity and adjust capital budget downwards.

2. Increase temporary staffing to deliver the known required growing capital program.
3. Develop a resourcing plan that balances increasing permanent staffing resources while maintaining appropriate temporary staffing to deliver the known required growing capital program.

The first option is not considered viable for the following reasons:

- The City's CAMP clearly identifies the risk of infrastructure failure that will prevail under the first option. The City already has over \$300 million in assets currently beyond their useful life as well as the forecasted amount of assets that will reach that state in the next decades. Without this critical work, City infrastructure will begin to fail at higher rates, causing significant risk to essential service continuity and community safety.
- The COVID pandemic response affirmed that City services are essential and any level of service reduction is unacceptable, even in a pandemic.
- It is also not a viable option to reduce the PM requirements to deliver a successful project when the City has made it a priority to deliver projects in accordance with PM methodology. Previous audits, both external and internal have reinforced the need for excellence in project delivery, both from a financial and reputational risk mitigation perspective.

The second option is not considered viable for the following reasons:

- Significant financial, reputational and project execution risk; and
- Continued lost investment and inefficiencies in recruitment, training, knowledge transfer as temporary staff come into employment with the City, then subsequently leave, and turn over in short order.

As a result of the limitations noted above and in relation to the first and second options, staff believe the best and most sustainable way forward is to develop a Capital Program Resourcing Strategy that will enable the City to successfully, and most cost effectively, meet the growing capital program demands. The City needs the right mix of permanent and temporary resource capacity to deliver a capital program that allows the time to properly plan, scope, and deliver on projects to avoid the risks outlined above.

Sustainable Capital Program Resourcing Strategy

Staff have considered other municipal practices, assessed the five-year need, and developed a financial plan to support the Capital Program Resourcing Strategy.

Comparison to other Municipal Practices

The City reviewed practices from the Council-approved municipal comparator list. The key takeaways from this research include:

- The use of temporary PMs is not common practice;
- The larger cities have defined senior PM and PM roles that are not combined with subject matter specialist activities and mid-sized cities have specialist roles doubling as PMs to execute projects;
- Municipalities have limited statistical data to support how many projects the average PM can reasonably manage in a year, however a range of one to four projects per year was identified, which is consistent with Guelph's findings; and

- There is a common challenge of evolving requirements reducing the capacity to PMs to manage projects and that a more efficient and cost-effective approach would require more positions to support such work.

Capital People Needs Identification

Based on the City's experience and the municipal comparator research, a City PM can deliver approximately \$10-15 million a year in capital projects, which typically equates to a PM working on four to six multi-year linear infrastructure projects, or one to two multi-year vertical infrastructure projects. It must be noted that to deliver a Tier-1 level project, being those that are the most complex, inherently risky, and financially impactful projects delivered by the City, a permanent, senior PM should be a minimum requirement. Based on these assumptions and understanding the gap between actual project delivery and capital budget planning, City departments have reviewed their staffing needs to ensure successful, sustainable delivery of the capital program. This review included an assessment of positions required in the following categories:

- PMs;
- Roles directly required to deliver the capital program (e.g., construction inspectors, surveyors, and designers); and
- Roles indirectly required to deliver the capital program (e.g., communications officers, procurement specialists, engagement coordinators, accounts payable and accounting support, or information technology support).

The results of this review indicate that the City has additional five-year staff resource needs as summarized in Attachment-1 and outlined below:

- Known permanent PM needs immediately (16 out of 22 total temporary PMs);
- Expected up to 15 additional permanent PMs over five years;
- Up to 10 additional permanent roles directly required to deliver the capital program; and
- Up to 12 additional permanent roles indirectly required to deliver the capital program.

As part of this strategy, staff would recommend the immediate conversion of 16 temporary PM positions to permanent and the addition of up to 37 permanent positions over a five-year period starting in 2022 (approximately five to seven annually). This level of staffing will allow for a doubling of current capacity to deliver capital projects. This is in line with capital planning projections, which is showing a 150 per cent increase (more than doubling) in the level of IR-related capital projects over the 10-year forecast.

Based on the estimated PM project/cost delivery noted above, the addition of 10-15 PMs over the next five years would ultimately increase the City's project delivery capacity by 40-90 projects and annual spending of \$100-225 million, which would make significant progress towards addressing the City's IR backlog and delivery of other key capital projects.

Proposed Financial Strategy

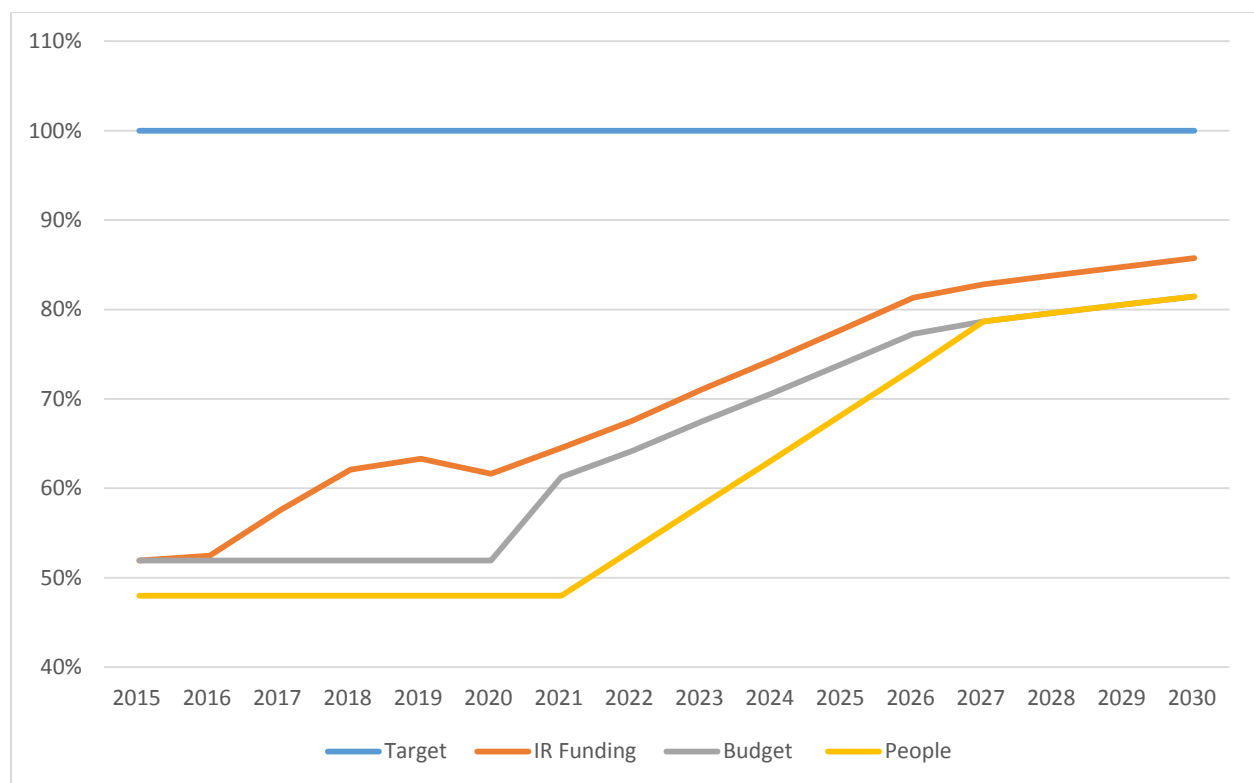
Staff are recommending a financial strategy that does not require net new tax or rate funding beyond the IR funding strategies that Council has endorsed. Rather, staff are proposing that the capital IR strategy be broadened to include the people

costs of delivering the large capital program. This strategy balances affordability to the community and the need to act.

While the current [IR strategy](#) focused on increasing the annual contribution to capital reserve funds and has made a significant impact on reducing the annual infrastructure deficit, throughout this report, a noticeable gap exists related to execution. The next phase of attaining sustainable infrastructure is investing in the people resources required to deliver the planned capital projects.

Figure 2 below shows the relationship of current funding, budgets and people to the target of reaching 100 per cent sustainable capital budget planning. From 2015 to 2021 funding improved from 52 per cent to 62 per cent of target, this has allowed for improved reserve balances as well as enhanced capital project planning due to the predictability of funding. Over the next ten years, it is forecasted that this number will reach 86 per cent. Through this same period, capital budgets will increase significantly, as 70 to 80 per cent of the annual work is driven by asset management priorities, and therefore budgets are expected to exceed 80 per cent of targeted annual renewal levels. The people to plan, manage, and support these projects is required to follow a similar trajectory. The proposed five-year plan is the first step in achieving this goal, as the plan progresses further evaluation will be carried out to determine the needs beyond the five-year time frame.

Figure 2 Sustainable Capital Budget Planning



Staff are proposing a five-year reallocation strategy that shifts up to one per cent of the total IR capital funding annually towards budgeting the people resources required to deliver the capital program. These positions will still be brought through the annual budget process; however they will show as net zero as they will be funded through a reduction in the transfer to capital, pending Council approval of this strategy.

Current total transfers to Infrastructure Renewal reserve funds are \$69.6 million; they are forecasted to reach \$97.6 million in 2026 based on the currently endorsed strategy. The conversion of temporary positions to permanent would see approximately \$2.3 million reallocated, and the annual reallocation would be between \$700,000 and \$975,000 for the five-year implementation phase for the balance of positions.

Implementation plan

The first step of the proposed five-year plan is to convert 16 of the existing temporary PMs to permanent positions. The costs of the PMs required to deliver the majority of the City's large-scale infrastructure projects are included in the planned capital budget, regardless of if they are temporary or permanent. This is in line with best practice when planning capital projects and ensures that the cost of delivering the project can be capitalized in accordance with Public Sector Accounting Standards.

For this reason, the conversion of temporary PMs to permanent PMs can be done through a net zero impact on the capital and operating budgets. It will result in a budgeted reduction in transfer to capital (tax and user rates) with an offsetting increase to department compensation budgets of \$2.3 million. Capital recoveries created with PM direct cost tracking would be returned to the appropriate capital IR reserve funds at the end of the year. The details of the proposed conversion positions are presented in Attachment-1.

The remaining identified 15 PMs and 22 direct and indirect roles that will be required through the next five years are costed at approximately \$2.1 million and \$2.0 million respectively and will be recommended through the budget in accordance with the strategy as proposed. Staff will use an evidence and data driven approach to determine future FTEs decisions through this multi-year strategy. Doing so enables assessment of project delivery improvement, and improved retention and training efficiencies.

The total estimated annual operating cost of these additional positions is \$4.1 million once the plan is fully implemented by year five. As previously noted, these positions will be identified in the multi-year budget based on operational priorities as verified through the staff Capital Steering Committee (CSC).

Proposed Position Prioritization Validation

To ensure appropriate prioritization of resource needs, and validation that these positions are within the scope of the Sustainable Capital Program Resourcing Strategy, the CSC will develop a set of criteria that all positions will be required to demonstrate their alignment with and be measured against. These criteria will include, amongst other factors, the following:

- Relationship to IR capital program and impact on sustainability;
- Readiness of project planning;
- Priority of underlying assets;
- Availability of required capital funding; and
- Evaluation of department impacts.

To determine appropriate timing of new resource additions, the following approval process will be required to submit a budget request for a new permanent position as part of the net zero Sustainable Capital Program Resourcing Strategy:

- When a resource is required, the requesting department will prepare a business case and present it to the CSC.
- The CSC will consider the merits of the business case and evaluate it against corporate priorities and prior identified needs as included in Attachment-1.
- The CSC will make a recommendation for priority positions to the Executive Team as part of the multi-year budget process.
- Council approval will be sought through budget.
- Staff will report through subsequent budget monitoring reports on the trends occurring in project delivery and retention efficiency.

This validation process ensures IR funding continues to be directed to meeting a sustainable asset management plan.

Financial Implications

The current IR strategy has been very successful to date by reducing the annual infrastructure deficit and improving the overall health of capital reserve funds. The next phase of attaining sustainable infrastructure is investing in the people resources required to deliver these now funded capital projects.

The proposed financial strategy is prefaced on a broader definition of sustainability; one that includes the people resources to execute the capital plan and not just the capital construction funding. For this reason, staff are recommending the reallocation of up to one per cent of the current capital transfer to IR capital reserve funds annually for five years as a solution to close the people resource gap but maintain progress towards capital funding sustainability by 2040. The total cost of the strategy is estimated to be \$6.4 million, which will be accommodated through a reallocation of capital and operating budgets over the next five years. For greater clarity, the city's current strategy to increase capital IR funding on an annual basis will not be impacted. Instead, the associated human resource strategy explained by this report will be funded within this endorsed plan.

The risks of not augmenting the City's approach to human resources associated with capital projects is that there will be significant impacts on the assumptions used in the long-term financial models for timing of debt, cash flow management and investment decisions, and utilization of grant funding with deadlines imposed by other levels of government.

The addition of the resources noted within this report and over the next five years would increase the City's project delivery capacity by 40-90 projects annually, which will result in increased annual spending by \$100-225 million. This will enable significant progress towards addressing the City's infrastructure backlog and ever-aging infrastructure. The operating costs associated with the capital program delivery is part of the multi-year budget.

Consultations

City staff consulted internally through the CSC and Human Resources, and externally through the municipal comparator research.

Strategic Plan Alignment

The Sustainable Capital Program Resourcing Strategy supports a number of Strategic Plan priorities including:

Powering Our Future

- Improving relationships, including with Indigenous Communities and First Nations as having capacity for meaningful engagement with rights-holding Indigenous partners also contributes to the City's efforts towards reconciliation.

Working Together for our Future

- Developing a long-term financial and resource strategy that is achievable and affordable and can be integrated into the multi-year budget.
- Attracting, developing and retaining talented employees who work collaboratively and creatively to deliver services.

Building our Future

- Building strong, vibrant, safe and healthy communities by ensuring infrastructure is maintained or replaced to deliver on levels of service identified through asset management and expected by the community.

Attachments

Attachment 1 – Summary of Resources Required

Departmental Approval

Capital Steering Committee

Tara Baker, General Manager, Finance/City Treasurer
Terry Gayman, General Manager, Engineering and Transportation Services/City Engineer
Jennifer Rose, General Manager, Environmental Services
Antti Vilkkko, General Manager, Facilities and Energy Management
Gene Matthews, General Manager, Parks
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