
REPORT TITLE: Capital Resourcing Strategy for Water and Wastewater Infrastructure

FROM: Kealy Dedman, Commissioner of Public Works

RECOMMENDATION

That permanent full time staffing positions, as described in the report of the Commissioner of Public Works, listed on the July 7, 2022 Regional Council agenda titled “Capital Resourcing Strategy for Water and Wastewater Infrastructure”, be added to support the increase in capital output required to implement the Water and Wastewater Master Plan, support external agency projects, and maintain required service levels.

REPORT HIGHLIGHTS

- The current Water and Wastewater Master Plan requires that the Region construct water/wastewater infrastructure to service over half a million new people over the next 20 years.
 - The ten-year capital budget for Water and Wastewater exceeds \$7B and requires a budget expenditure of \$700-\$800M per year. This level of expenditure represents a 100 percent increase from the 2021 capital project output.
 - There are increasing demands on Project Managers (PMs) including additional administrative requirements, legislative changes, and increasing expectations for project stakeholder engagement.
 - To ensure construction of sustainable water and wastewater infrastructure, it is critical that the Region invest in the people resources required to deliver the planned capital projects.
 - It is recommended that four (4) existing PM contract positions be converted to Full Time Employees (FTEs) and three (3) additional PM FTEs be retained in the Water/Wastewater Engineering Division.
 - To enable the capital work, four (4) additional permanent staff positions in the areas of legal services (lawyer), procurement (procurement advisor), real estate (capital acquisition agent) and finance (senior financial analyst) are also required at this time.
 - Additional resources are anticipated in other internal service areas including Water and Wastewater Operations, Infrastructure Planning and Operations Support. Subsequent studies are required to determine the level of resources required and will be identified through future reporting and budget requests.
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DISCUSSION

1. Background

Water and Wastewater forms a significant component of the Region of Peel's (the Region's) capital investment and is a critical service provided by the Region. As outlined in the 2020 Water/Wastewater Master Plan, the Region of Peel's population is expected to grow to almost 2 million people by 2041. This growth means that the Region will need to accommodate water and wastewater servicing for over 542,000 new residents and 275,000 additional jobs over the next 20 years. This growth significantly increases demands on water and wastewater systems, which also increase the focus on the planning and delivery of asset repair, renewal, and replacement programs. In addition, as part of the Region's Enterprise Asset Management's State of Good repair (SOGR) program staff are also responsible for asset replacement of infrastructure throughout the Region.

Third-party projects with external agencies such as CVC, TRCA, MTO, HuLRT, Minister's Zoning Orders (MZO) and Operational based emergencies, are other examples of projects that are supported by the Water and Wastewater Engineering Services Division. These projects are additional to the Region's growth and SOGR water/wastewater capital plan.

The demand on Project Managers has increased over the past few years as the Region has increased the amount of documentation and reporting requirements such as Vendor Performance Management (VPM), cash flow analysis, project status spreadsheets, etc. required for Capital Projects. In addition to the increased expectations to execute a capital project, PMs are facing increasing requirements that require more of their time, including changes in legislative requirements, increased requirements in obtaining permits and approvals from external agencies and ad hoc requests to assist other departments with technical issues related to water/wastewater and/or other engineering support matters.

With the recently adopted Regional Official Plan and the settlement area boundary expansion (SABE), there will be significant additional growth pressures that Regional staff will face in the future that are not included in the context of this report.

Figure 1 outlines the capital spending over the past four years as well as the required future capital spending needs up to 2030. As part of the approved 2022 Capital Budget, the ten (10) year capital budget for Water/Wastewater is more than \$7B and requires spending \$700-\$800M per year to complete the plan. An anticipated 100 percent increase in output is therefore required to achieve the requirements of the Master Plan.

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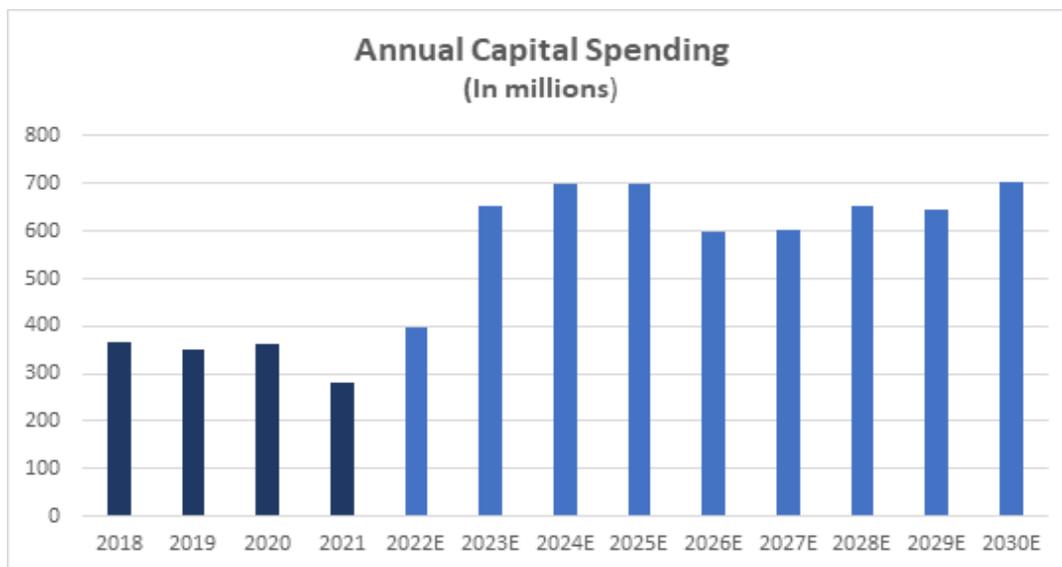


Figure 1 – W/WW Capital Budget including previous years W/WW capital spend

Assessment of Current Practices in Engineering

GM BluePlan was retained to complete an assessment of the current practices within the Water/Wastewater Engineering Division. This work included an assessment of current staffing levels, a review of current project execution practices, benchmarking the Region’s practices against other organizations, and development of recommendations.

Benchmarking against comparator municipalities revealed that Project Managers in the Water/Wastewater Engineering Division, on average, are responsible for 12 projects per year whereas other municipalities’ project managers are responsible for approximately 5 projects per year as shown in Table 1. GM BluePlan recommended that there was an immediate need to ensure staffing levels are appropriate to deliver critical capital projects.

Table 1: Project Manager Responsibilities across different Municipalities

Region/ Municipalities	Total # of PMs	Avg Projects/PM/Year	\$M Managed / PM
Peel Region – 2022 Capital Expectations	37	15*	20.68
Peel Region – 2023 Capital Expectations	37	17*	20.16
Municipality A (Canadian)	100	3	14.23
Peel Region - 2021 Capital Portfolio	37	12	9.05
Municipality B (Golden Horseshoe)	16	13	7.80
Municipality C (local GTA)	25	3	7.20
Municipality D (Canadian)	15	16	6.67
Anonymous	13	5	6.31
Municipality E (local GTA)	11	5	4.80
Municipality F (local GTA)	10	3	4.50

* Avg Project/PM/Year for 2022 and 2023 are estimated based on new projects in 2022 budget

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GM BluePlan noted there is an increase in demands on Project Managers such as enhanced internal controls for capital project delivery and legislative changes including the new Ontario Regulation (O.Reg.) 406/19 On-Site and Excess Soils Management. Today's political climate also has increased expectations for project stakeholder engagement and well as public communication. In addition, the Region's growth plan is focused significantly on intensification and higher density development which has a greater need for focused engineering review, standards and complex construction methodologies.

The assessment recognized that the average Project Manager within Peel consumed upwards to 20 percent of their time used for tasks outside of project delivery. These non-project specific tasks include valuable initiatives which contribute to overall service delivery, such as:

- Reviewing and updating engineering standards;
- Ad-hoc requests from Water/Wastewater Linear Operations and Development Services to support engineering issues;
- Updating standards related to tenders and RFP documents;
- Participating in the Establishment of new engineering protocols;
- Support operational services and corporate requests;
- Completing and submitting Vendor Performance Management evaluations;
- Researching and implementing changes related to new regulatory requirements; and
- Increased data collection, analysis, and reporting requirements.

GM Blue Plan recommended that special projects and supports be carefully considered when allocating project assignments to Project Managers.

In order to meet the demands of the current Master Plan and based on the assessment completed, GM BluePlan recommend a minimum of seven (7) FTE Project Managers be retained in the Engineering Division to execute the increase in capital projects and support external agency work.

Four (4) Project Manager contract positions were retained in Spring 2022 to assist Engineering with the increase in capital projects and it is recommended that these four positions be converted to FTEs. It is also recommended that an additional three (3) Project Manager FTEs be retained to achieve the required capital output and meet the current demands placed on Project Managers. The cost of the Project Manager staffing requests including the proposed conversions is estimated to be \$467 thousand which would be fully recovered capital recoveries for the utility rate supported program with no net impact on the tax supported side.

The addition of the project managers alone will not be sufficient to execute the doubling of the capital work within the water/wastewater portfolio. To enable the capital work, additional staff in the areas of legal services (lawyer), procurement (procurement advisor), real estate (capital acquisition agent) and finance (senior financial analyst) are also required. These staff will support the ongoing upfront work such as drafting construction and supply agreements, supporting complex procurement processes, addressing infrastructure development related issues, supporting negotiations for the acquisition of temporary and permanent easements and supporting the increased importance of financial tracking including cash flow management, project funding control, industrial benchmarking, long term financial plan implementation as well as external funding management. The total cost of the

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four (4) support staff is approximately \$604 thousand which would be fully recovered through capital recoveries for the utility rate supported program with no net impact on the tax supported side.

A future study will be conducted to review the FTE requirements in Operations Support, Infrastructure Planning, Partnerships and Compliance, and Water/ Wastewater Operations to assist in the implementation of capital projects.

RISK CONSIDERATIONS

If additional resources are not retained, there is a risk to capital project delivery under the current model; capital projects may not be delivered on schedule and on budget. Anticipated levels of service to existing customers are in jeopardy as State of Good Repair (SOGR) projects may not be completed as currently scheduled within the program. In addition, required water and wastewater infrastructure to service future developments may not be completed time to accommodate the required future growth.

External agency work that impacts our infrastructure such as MTO's widening of Highways 401 and QEW, or Metrolinx's HuLRT project may not have adequate resources to ensure Water and Wastewater infrastructure needs are protected and/or properly relocated.

New Official Plan

The new Official Plan Peel 2051 includes significant expansion of the urban boundary and population which triggers the need for Water and Wastewater to develop a new Master Servicing Plan. The study is anticipated to commence in 2023. Additional infrastructure is anticipated to be required to service the new growth plan. This growth will require additional capital works to be completed in an already compressed time frame.

To continue to provide expected levels of service, the Water and Wastewater Division has retained Ernst and Young to complete a Water/Wastewater Strategic Utility Assessment. This project will assess resource needs, complete benchmarking exercises including capital planning and implementation in consideration of growth and succession planning challenges and ultimately build an implementation plan including capital related implications from the Region's Official Plan.

This assessment will review existing resource levels required to achieve a best-in-class utility model and make strategic recommendations on business support areas for the Utility Region wide.

FINANCIAL IMPLICATIONS

Funding for the additional staff required to deliver the water/wastewater projects are recovered from capital budgets which are funded from utility rates for state of good repair projects and/or applicable development charges for growth related capital projects. Retaining additional resources does not have any impact on the tax rates.

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CONCLUSION

The additional resources being requested are required to ensure the Region can support the increase in capital output required to meet the demands of the Water/Wastewater Master Plan as well as external agency work that affects Regional infrastructure.

Authored By: Andrea Pitura, Director, Engineering Services, Water and Wastewater

A handwritten signature in black ink, appearing to read "Kealy Dedman". The signature is fluid and cursive, with the first name "Kealy" being more prominent than the last name "Dedman".

Kealy Dedman, Commissioner of Public Works