

Executive Summary

One of the goals of the Greenest City Action Plan 2020 is for the city to demonstrate leadership in greening their own internal operations. To this end, Engineering Services developed a Departmental Action Plan which includes specific targets, relating to Zero Waste, Zero Carbon and Healthy Ecosystems, to be achieved by 2020. The Engineering Services in the City of Vancouver is also in the process of developing project management frameworks under the direction of the Project Management Office (PMO). One of the modules being developed focusses on project sustainability. Through this module, the engineering services aims to incorporate their strategic objectives related to green operations goals. This project focusses on the design and construction operations of the water, sewer and streets departments. The overall goal is to identify gaps in current practices and opportunities for using project management tools to address the identified gaps.

A background study to gain an understanding of the current status of operations, best practices and green operations in other cities was conducted. This was followed by interviews with relevant stakeholders and on-site observation. A total of 32 interviews were conducted and 5 different project were observed during the course of this project. This exercise was used to benchmark the current operations and identify opportunities for improvement. A total of 15 opportunities are identified and recommendations are provided for their implementation. A gap analysis was then performed to look at the benefits and challenges associated with each opportunity. On the basis of this analysis, interviews and site visits a preliminary categorization into low, medium or high has been done for each of identified opportunity w.r.t level of effort, sustainability benefit and risks. The recommendations presented in this report are intended to stimulate dialogue in Engineering Services around the identified gaps. Some of the crucial gaps which were identified are:

1. Limited use of warm mix asphalt on projects
2. Wood waste on-site not being recycled or reused
3. Old and unused fittings/valves are not being reused
4. Potential for increase in recycled content in cement and asphalt

The existing gaps in practices were further categorized into different clusters to identify topic areas for development of the sustainability module. A total of 6 topic areas emerged which can address the existing gaps. These topic areas were then rated on the

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basis of their relative importance. Some of the key topic areas that emerged through this analysis are:

1. Waste Management Plan
2. Sustainable Internal and External Procurement Checklist
3. Communication Checklist

The work done in this project provides a good starting point for the development of sustainability module and initiating a dialogue around the identified gaps. Due to the limitations in time the analysis done for each gap is only qualitative in nature and there is no quantitative data to support the categorisation of opportunities. Further work is needed to better understand the associated impact of implementing each opportunity.