MMCD Asset Management Data Register Provides Standards for Infrastructure Data

By Andrew Walther

British Columbia local governments are required to recognize infrastructure assets under PSAB 3150 (Public Sector Accounting Board) rules. For most local governments, this has been challenging because existing infrastructure records are often times incomplete, out of date and detached from current accounting procedures. In response to PSAB requirements, BC local governments have stepped up their efforts to consolidate and organize their infrastructure data. They are also actively engaging in infrastructure data collection projects to fill in the gaps in order to develop a representative record of infrastructure assets.

"The problem is the lack of an industry accepted standard for the way in which we store and work with infrastructure data" says Andrew Walther of APW Engineering Inc., a Professional Engineer working with MMCD to tackle the issue. "Local governments have been developing infrastructure records using a number of varying techniques and data formats, and for this reason it will be very difficult to aggregate and report on the current state of municipal infrastructure at Provincial and even National levels. Furthermore, there are too many other benefits associated with consistent standards to simply ignore the issue.

The two major objectives of the MMCD Asset Management Data Register Project (AMDR) are to:

i) Develop a data structure, or schema, for the way in which infrastructure data is stored; and

ii) Provide a functional tool based, on this schema, for recording and analyzing infrastructure assets.

The latter would be of use by many of the smaller local governments in the Province that lack access to sophisticated GIS and asset management systems, and are already using spreadsheets to manage their infrastructure data. The municipalities that have established asset registers in their GIS and financial systems have two choices. They can either directly adopt the MMCD AMDR schema or at the very least, use data translation tools to move their infrastructure data to the MMCD AMDR format. Either way, a common standard will facilitate infrastructure data aggregation and reporting. The key component is the common schema for infrastructure data. "We feel that this two-pronged approach of the AMDR Project can therefore reach out and benefit all BC local governments, regardless of their size and level of involvement with asset management practices".

Some of the other benefits of the MMCD AMDR project are that it is easy to adopt, universal attributes are friendly to financial data for PSAB 3150, it is developed based on an "open source" approach to data format and capable of relating infrastructure granularity, age, description, performance and risk. Finally the AMDR will be free of charge to MMCD members. The development phase of the AMDR is nearing completion. We are flushing out the final details on the schema and expect to have development finished by late spring or early summer. The final phase of the project, which involves community support, will begin in the fall of this year.

Your Assets? – Drainage Infrastructure Screening Tool Saves Money!

By Kim Stephens

"A typical situation faced by local governments is this: an existing storm sewer system; some problem areas; limited funding available for system upgrades; and the need to provide flood protection while being fiscally responsible," states Kim Stephens, Executive Director, Partnership for Water Sustainability in British Columbia. "Many systems operate without serious problems for many years. Furthermore, the vast majority of the time, the

system capacity is only partially utilized for conveyance."

"Yet many engineering studies recommend plans for pipe replacement and upsizing that would cost tens of millions of dollars, money that local governments do not have; while providing no offsetting stream health benefits. Reliance on complex computer models may be having an unintended consequence. Pipe-by-pipe computer simulation of storm sewer capacities is very precise, yet may not accurately reflect reality, thereby resulting in unaffordable infrastructure plans. This is paralyzing municipal decision-making."

"Why is this happening? Is an apt analogy that modellers are missing the forest for the trees? When implementable plans go on a shelf to gather dust, what has been accomplished? Is it time to hit the re-set button vis-à-vis the way we evaluate drainage infrastructure?"

"To shine the spotlight on solutions, the Water Balance Model Partnership has developed a web-based **Drainage Infrastructure Screening Tool.** City of Surrey and District of North Vancouver case study experience has proven out a screening methodology that saves time, effort and money. Now, local governments can focus on what is most important AND achieve more at less cost. They can quickly and inexpensively assess drainage system performance to pinpoint any problem areas. This will help them establish capital budget priorities for detailed analysis during the design process."

"The guiding principle in looking at drainage infrastructure differently is to provide a uniform **Level-of-Service** for both drainage and flood prevention, one that is based on a uniform area discharge rate. This would provide an equal level of service or access to the drainage system for all properties within the watershed. Four questions provide a framework for screening and decision-making:

1. What is the existing level of drainage service within the community?
2. What will be the effect of climate change?
3. What will be the effect of redevelopment?
4. What will be the effect of climate change on redevelopment?"

"The Level-of-Service methodology is embedded in the Drainage Infrastructure Screening Tool. This provides the means to quickly and efficiently identify weak links in a drainage system; and then budget affordable solutions," concludes Kim Stephens.

To learn more, visit www.waterbalance.ca

CONSULTATIONS ACROSS CANADA ARE STEPS TO BUILDING A PROSPEROUS FUTURE

INFRASTRUCTURE CANADA

Infrastructure investments are a key part of Canada's Economic Action Plan, creating jobs, growth and long-term prosperity for Canadians. The seven-year, $33-billion Building Canada Plan, introduced in Budget 2007, was Canada's first-ever long-term infrastructure plan. This Plan will continue to deliver results for communities until 2014 and beyond.

Infrastructure Canada kicked off a series of roundtables with provinces, territories and stakeholders across the country with the goal of developing a new long-term infrastructure plan that will sustain and improve Canada's infrastructure network.

The new plan will build on past accomplishments. It will provide new opportunities for all levels of government to work together to improve public infrastructure in Canada. It will also identify