

URBAN*Voice*

THE NEWSLETTER OF THE SASKATCHEWAN URBAN MUNICIPALITIES ASSOCIATION



Urban Infrastructure Edition

Waste Water Project
P3 Canada Fund
Water Treatment Critical
Risk Management Advice
Visioning
And much more...

Municipalities cooperate to provide a residence for medical professionals

By Dawn M. Barker

In Rosthern, what's old is new again – at least, it is at the Rosthern post office, the location of a Saskatchewan Municipal Award-winning project to turn one of the town's historic buildings into a much-needed residence for doctors and other medical professionals.

The Rosthern Post Office building has been one of the town's principal structures since 1928, when then-Prime Minister William Lyon Mackenzie King laid its cornerstone. Still attractive and structurally sound, the building houses the post office on its main floor, but until recently, the second floor, accessed from a private entrance by a carved oak staircase, was vacant.

The rest of the town, however, wasn't. Accommodation was at a premium – so much so that prospective physicians from Saskatoon were discouraged by the lack of lodging. These physicians not only practiced medicine in Rosthern, they also operated satellite clinics in three surrounding communities and a nearby First Nation, and if they were not available, the 24-hour emergency coverage at both the hospital and clinic offices would face closures.

The 22 bed hospital is one of the province's "teaching hospitals", a place where interning nurses, medical technicians and other medical professionals are mentored as part of their qualification requirement.

The process began when council was approached by Drs. Linda Baker and Denny Bishop, along with hospital manager Robert Hogel. The delegation outlined the urgent need for on-call staff accommodation, and asked council to take a leadership role in finding a solution.

Dr. Don Greve, a retired physician who now holds a spot on Rosthern council, said that the continued operation of the medical facilities both in Rosthern and surrounding communities was vital.

"It's a very active practice," he said, adding that the situation presented council an opportunity to look at the "big picture" of health care in the area and the need for intermunicipal cooperation.

After consultation with the Saskatoon Health Region and Rosthern Hospital, the town's council examined the available options, and chose the refurbishment of the post office building's second floor as the most viable.

They then held meetings with the other members of the Twin Rivers Working Group, all municipalities that used the physicians' services, and created a budget for the project. All of the working group members – the RMs of Duck Lake, Rosthern and Laird, and the Villages of Hepburn and Laird, and the towns of Waldheim, Duck Lake and Hague contributed on a per capita basis to the project cost. Further donations were solicited to furnish the residence, and town administrator Nicole Lerat said the response was favourable.

The original hardwood flooring was refinished, plumbing replaced and cabinetry upgraded. As well as sleeping areas, the residence boasts a living room, kitchen and shared washroom. Today, there are four bedrooms available, and all are filled with medical professionals serving the area. Greve said the response to the project proves the importance of the area's medical services.

As well as being the toast of the town, the project was chosen to receive a Regional Leadership and Partnership Award at the 2011 Saskatchewan Municipal Awards ceremony in May, in Regina.

"It acknowledges the fact that municipalities can work together to accomplish more things than they could do individually,"



Rosthern doctor's residence project won the community 2011 SMA recognition.

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The Voice of Urban Saskatchewan

One of the most complex challenges facing urban governments in Saskatchewan is how to handle the increasing amount of infrastructure nearing the end of its useful life. Everyday local governments are faced with crumbling roads, sidewalks, leaking water lines and infrastructure that does not meet the demands of a growing urban centre. This infrastructure is critical in supporting a community's social and economic activities. It also plays a vital role in growing the provincial economy.

Urban governments alone do not have the financial capacity to address this challenge; therefore, it is important that the other orders of government which

have a vested interest in ensuring the necessary infrastructure is in place, create partnerships to find long-term and sustainable solutions. Urban governments rely on limited funds from their own revenues and various grant programs from the federal and provincial governments to address the rehabilitation and construction of urban assets. Too often, the grants available are ad hoc programs designed to meet the objectives of the other orders of government, not the needs of the urban sector. Historically, except for the Gas Tax fund, infrastructure programs were never intended to provide long-term and sustainable support. This scenario prohibited municipalities from properly planning for municipal investment.

The intent of these three studies is to develop an evidence based policy for increased investment in urban infrastructure. A strategic program that directs funds to projects that are critical to supporting the economy and our standard of living is vital to the future of the province and the urban sector. The program must also ensure that funds are being used effectively and incorporate (where applicable) other financing mechanisms that could enhance the funding available. In addition, the program needs to reflect that local governments are best situated to identify the projects most important to their communities.

It is crucial that this program be implemented as soon as possible even if the federal government is not a contributing partner. Urban infrastructure in this province is too critical to leave unattended much longer.

SUMA is working with the Ministry of Municipal Affairs to develop a "Made in Saskatchewan" infrastructure plan that will address the specific needs of this province's local governments. Following the same framework that was used to develop the Municipal Operating Grant, the working group tasked with this project has conducted studies on best practices for infrastructure investment, alternatives to financing infrastructure and soon will attempt to determine the actual local government infrastructure deficit in Saskatchewan.



Laurent Mougeot, Chief Executive Officer



CRIMESTOPPERS:

North Battleford:

On May 22, 2011 at approximately 10:15 p.m., the Battlefords RCMP were notified of a fire that caused damage to some playground equipment on 110th St., North Battleford. The fire was believed to have been intentionally started.

Gull Lake:

The Swift Current Rural RCMP detachment is asking for the public's assistance in solving the following matter. Sometime between Friday, June 3, 2011 and Monday, June 6, 2011 someone dumped crude oil into the Gull Lake Lagoon (water treatment). The incident caused wildlife to die and an extensive amount of funding was needed to clean up the spill.

President's *Voice*

In Canada, local governments own a majority of the public infrastructure. This includes roadways, water systems, public transit and recreational facilities, physical assets which are vital to creating safe, livable and healthy communities that provide a quality of life that is expected by Canadians. In addition, these assets are the economic foundation of our communities and are extremely valuable to future growth.

The total value of this public infrastructure is believed to be in the trillions of dollars and local governments spend approximately \$12 to \$15 billion a year to conduct proper maintenance and rehabilitation of these assets to ensure their safety and long term use.

In recent years, a number of organizations have started to sound the alarm on the challenges local governments are beginning to face with these vital assets. The condition of public infrastructure has been degrading rapidly and funding to address this challenge is limited. In 2003, the total infrastructure deficit for assets owned by local governments was estimated to be \$60 billion growing at a rate of \$2 billion per year. The amount of money needed to address this challenge is astronomical. It requires a solution that involves all orders of government.

As we work to address this current challenge, local governments need to change the way they think about managing infrastructure in the future. A reactive (as opposed to proactive) strategy toward infrastructure is not effective practice. Communication with citizens about the level of services provided, the effective use of funds and condition assessment on critical assets are essential.

A catalyst for this change in practice was the PSAB 3150 mandate to start

reporting tangible capital assets in financial statements. This process was a daunting task that was not warmly welcomed by local governments; however, as more communities became compliant, support grew for the new requirements and interest in how to utilize the information collected increased. In Saskatchewan, we capitalized upon this opportunity to begin educating local governments on the importance of putting in place proper plans to manage current and newly constructed assets.

As part of the initiative to assist communities in reporting tangible capital assets a few pilot projects, involving both urban and rural municipalities were initiated. These utilized the collected data and produced some preliminary condition assessments and numbers on the required funding needed to maintain a level of service expected by the residents of those municipalities. This was also an opportunity to begin to introduce the concept of asset management to the municipal sector. The feedback from the sector on these pilots was extremely positive and in many situations elected officials and municipal staff were shocked at the some of the findings. There was growing interest from the sectors in learning about managing assets and a desire to build upon the earlier pilot projects.

It was identified that in order to have local governments implement asset management, the process needed to be simple and cost effective. SUMA along with its partners in the TCA reporting project contacted the Institute of Public Works Engineers of Australia. This organization has been involved in asset management in Australia for a long time and had developed a program called NAMS for small municipalities that met our criteria. Our interest in the program was to see if it was a tool that could be

used by Saskatchewan's municipalities. The project team set out to conduct four pilot projects, once again involving both urban and rural municipalities. So far the feedback from the participants has been extremely positive. The results of these pilot projects will be shared with other municipalities at the 2012 SUMA convention.

Through all of this work, it has become evident to local governments that there is value in properly managing their infrastructure. No longer will a "fix as it breaks" attitude work. With very little funding available to tackle infrastructure needs, local governments have come to realize that establishing levels of service, performing conditions assessments on their assets and having a plan in place for effective maintenance and rehabilitation can maximize infrastructure investments. Ultimately, these practices will help local governments ensure funding is being directed where it needs to be in the most cost effective manner.



Allan Earle, President



Intermunicipal Cooperation and Key to Successful Waste Water p



The Dundurn & Area Wastewater Utility Project received recognition at the 2011 SMA event in May

By Dawn M. Barker

Water is an essential element for all of us – and a constant concern for urban governments, who must comply with regulations, provide an adequate supply and efficient waste water removal systems, and do it all within a price range that taxpayers are willing to support. This isn't always easy (and sometimes it isn't possible) for individual small municipalities to do; that's why the Dundurn & Area Wastewater Utility project recently received an Environmental Stewardship award at the 2011 Saskatchewan Municipal Awards ceremony.

A snapshot of the region in 2008 would have revealed an array of issues that required immediate attention. The Resort Villages of Thode and Shields, and Midnight Sun Estates adjacent to Shields were in dire need of a new lagoon; at the time wastewater was diverted into holding tanks and trucked 30 km away to Hanley. There was concern about the potential for septic tank leakage into Blackstrap Lake, as well. The Town of Dundurn, one of the most rapidly expanding areas for residential growth in Canada, had a lagoon nearing capacity. With 790 residential lots under development, it was apparent that a solution had to be found. A nearby Hutterite

Colony and 180 acreage sites in the surrounding RM needed sewer systems, and Dundurn's lift station was old and failing.

"The two resort villages had lost their dumping privileges with SERM for its lagoon adjacent to Blackstrap Lake," said committee chairperson Fred Wilson. "They desperately needed to find a place to utilize, and approached the town about using its lagoon, but the lagoon was close to capacity, and access to the town's lagoon was difficult."

The resort villages approached the RM and the town to discuss solutions, and all the participants realized that the situation presented an opportunity as well as a problem. A steering committee representing the four was formed, and Associated Engineering was engaged to do a predesign report on a regional sanitary system. The report was then submitted to SaskWater, and garnered a very positive response.

A utility board was formed, the mandate for which was to oversee the \$9 million project and apply for grant funding, and the tendering process began at the end of May, 2009. It was a complex process, including the installation of three lagoon cells (two of which are 32,200 cubic metres each, and the third, a storage cell, being 294,000 cubic metres).

Innovation project

The lagoon's cells are aerated for odour control and internal sludge digestion. After it is treated, water will flow through a nearby marsh into a creek and travel 20 km downstream into the South Saskatchewan River.

The 19,850 linear metres of forcemains connect Shields, Thode, the Hillcrest Hutterite Colony, and Skyview Acreages east of Dundurn to the lagoon. Collection systems were installed for the resort villages and acreages, and a new lift station replaced the obsolete model in Dundurn. In all, five lift stations were incorporated into the system to service the whole area.

As with most innovations, the project was not without obstacles. The wet summer of 2010 meant construction delays, and the process of obtaining permission to have sewer lines cross the CN Railway was harder than anticipated. Additional wait times for the power supply to the town's lift station caused frustration, but in the end, all of the delays and obstacles were overcome, and the efforts paid off.

Today, the project is nearing completion, providing modern sanitary collection systems for the resort villages along the Blackstrap Lake, 180 acreage sites and the Hutterite Colony. The aerated lagoon provides storage for all four municipalities and will act as a septic service dumping station with a life of at least 50 years.

The project is nearing completion, with infrastructure to two new subdivisions in Shields being put in. The committee anticipates that the entire system will be ready for commissioning and testing later in the summer of 2011.

The municipalities, who have worked together on a much smaller scale to address recycling management, are understandably proud of accomplishing this unique jointly owned and operated sanitary sewer system.

"Everything went quite well, despite the weather delays," Wilson said, noting that the project had two essential elements: a good business plan, and cooperation. "I guess you could say we had the right people at the right place at the right time. We were able to realize our common concern, and to cooperate to act on it."

Wilson said the SMA award has generated increased civic pride within the region. "When you think of lagoons and sewage systems, it's not something you generally get excited about, but to see progress in a project like this gives you a good feeling. We're quite proud of what we've accomplished, and of being recognized for it," he noted.



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A group of five people, three men and two women, are posing for a photo in a tropical setting. They are standing in front of a green bus. The background shows lush greenery and a clear sky. The people are dressed in casual summer attire, and some are waving at the camera.

Saskatchewan's Urban Future – *Inv*

By Mark Cooper

Saskatchewan is an urban province. Despite the perception that we are a rural and agricultural province, the reality is that neither of those images is true today. According to Ministry of Health population data, nearly 86 per cent of our citizens have primary residences in urban Saskatchewan; meanwhile, only 12 per cent of our 2009 gross domestic product (GDP) was generated through agriculture, forestry, fishing and hunting. Even when mining and petroleum are factored in, the rural economy generates only a quarter of our provincial GDP. More than 70 per cent of Saskatchewan's GDP is derived from general services, construction, and manufacturing. Most of this economic activity happens in our urban centres.

Urban centres (cities, towns, and villages) are the hubs in and around

which life happens in Saskatchewan. Our economic activity, cultural and recreational pursuits, medical and educational needs, and basic necessities are all provided in these hubs. The interplay of these elements creates both economic growth and social progress. The facts are clear: urbanization spurs economic growth. Within Saskatchewan we see increasingly greater percentages of economic activity and growth occurring in urban centres – and the larger the centres, the more significant the growth. The clear conclusion is that Saskatchewan's cities, towns, and villages are the economic engine driving provincial growth.

How do we keep the engine running?

The answer, in a word, is infrastructure. Infrastructure is the solid foundation on which our hubs of economic and social activity are built. In our urban centres,

infrastructure includes roads, bridges, water and wastewater systems, storm sewers, recreation facilities, fire halls, police stations, landfills, buses, and many more elements. The Organisation for Economic Co-operation and Development (OECD) reports that infrastructure is the “means for ensuring the delivery of goods and services that promote prosperity and growth and contribute to quality of life¹”. Infrastructure creates growth and growth demands infrastructure. With Saskatchewan's economy projected to grow at more than three per cent per year², this cycle of growth and infrastructure demand in urban centres will only gain speed and momentum.

What do we need?

We need a plan. Realizing that need, SUMA has engaged with our cities and the provincial government in the development of a long-term sustainable and predictable urban



Photo courtesy Che-Wei Chung

Infrastructure is the Key

infrastructure plan. Our work on this plan is progressing, and we are on track to have proposals in place for the next provincial budget. Meanwhile, this government has shown a previous commitment to investing in infrastructure – whether the \$300 million available in low-interest loans through Saskatchewan Infrastructure Growth Initiative; the \$100 million in unconditional Municipal Economic Enhancement Program money announced in 2009; or the more than \$140 million in provincial dollars tied to federal funding programs over the last three years. This money was needed, and the government delivered on its commitment to invest in growth. While the ad hoc approach to infrastructure funding has allowed urban governments to limp along in the last five years, overcoming our cumulative existing infrastructure deficit and building for the future will require a longer-term sustainable approach.

How much is needed?

The short answer is – a lot. The OECD forecasts that meeting the global demand for public infrastructure at a growth rate above three per cent means an annual investment of approximately 2.5 per cent of GDP³. In the Saskatchewan context, with GDP of \$36.9 billion, 2.5 per cent means a total annual investment of \$738 million. Not all of that would be for urban municipal infrastructure – it would also be used for roads, telecommunications, energy, health, education, and other priorities. Calculating the urban share of that investment is part of the long-term plan development work that SUMA and others are doing.

According to Statistics Canada, approximately 58 per cent of all government infrastructure in Canada is owned by local governments⁴. We know that approximately 76 per cent of

Saskatchewan's GDP is generated in its urban centres (roughly \$28 billion) – so, if we take 2.5 per cent of this GDP (\$700,000,000) and allocate 58 per cent of it to urban-owned infrastructure that total comes to just above \$400 million per year. \$400 million per year in urban infrastructure may be an impossible number, but it certainly gives us a real sense of the scope of the challenge we face.

When seen through the lens of per capita dollars, however, \$400 million may not be as unrealistic as it seems. With an urban population of 918,295⁵, that equals \$436 per person per year. When measured against the real-life benefits and value derived from accessing urban infrastructure, \$436 per person seems reasonable. When measured against the cost of underinvestment – that price tag gets even more attractive.

What is the cost of underinvestment?

RiskAnalytica estimates that should underinvestment continue, the national economy might lose as much as 1.1 per cent of real GDP growth annually – this is not to suggest we won't grow, but rather that we won't grow as quickly⁶. This would prove to have a concrete impact on the income of citizens. The report estimates an opportunity cost loss of 0.5 per cent per annum of real after-tax income per citizen. When projected over 50 years (the time frame on which the report was based), a personal loss of as much as \$51,000 in potential income as a result of underinvestment in public infrastructure could accrue. \$436 per year seems a lot more attractive now.

The RiskAnalytica report goes on to say that employers are also affected by long-term underinvestment. Estimates suggest as much as 0.7 per cent per

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year will be lost in after-tax net profit, representing a significant cumulative impact. If our citizens and businesses lose the opportunity to make more money, an economy driven by consumption will, out of necessity, slow. The ultimate conclusion, then, is that an appropriate level of infrastructure investment is fundamental to sustaining long-term economic growth.

What is the Return on Investment?

As reported by the United States Agency for International Development (USAID) in its report "Towards an Urban Future"⁷, "...the concentration [in urban centres] of human capital, infrastructure and economic activity can leverage even modest but well-targeted investments to achieve significant development impacts." Research has long indicated that investment in urban infrastructure produces significant economic returns for provincial and federal governments. Return on Investment (ROI) is an essential justification for why the investment in urban infrastructure is "worth it".

RiskAnalytica suggests that for every dollar more that citizens pay for infrastructure; they will see \$1.48 back in after-tax wages. That is a fairly strong ROI for any investment portfolio. On a macroeconomic level, Informetrica Limited estimates that every \$1 billion invested in infrastructure creates 11,000 new jobs⁸. For every dollar invested, federal and provincial governments receive approximately 35 cents in higher income and sales tax revenues. Finally, a \$1 investment in infrastructure delivers approximately 17 cents in savings to the private sector. In the end, everyone wins.

So, let's apply the potential ROI to our projected \$400 million need. If we invest \$400 million annually in urban infrastructure, it may produce: 4,400 new jobs; \$140 million in new revenue for the provincial and federal governments; \$68 million in savings for the private sector; and \$592 million more in after-tax wages for the taxpayers of Saskatchewan – meaning an average increase in after tax wages

of more than \$644. So, for \$436 per person per year in infrastructure investment we can look at returns of more than \$644 per person. That's math we can all take to the bank.

What does it all mean?

We're a long way from the end of this discussion. The challenges are large, and they require everyone to do their part. A long-term sustainable program from the provincial government, and even one from the federal government, will not pay the entire cost of urban infrastructure. Urban governments must continue to develop and deploy innovative methods of financing local infrastructure. In addition, it is an urban responsibility to manage these assets wisely. This means life-cycle costing, and dedicating the resources necessary for annual maintenance and replacement.

If urban governments expect the provincial and federal governments and the private sector to participate, we must also be prepared to show leadership in our contribution toward infrastructure. Discussions with urban leaders across Saskatchewan suggest that they are prepared. The province indicates it wants to do its part, too. The future is bright, but there remains much work to do. We can find mutually acceptable solutions to this challenge together, and in so doing we can ensure Saskatchewan continues to lead the country in growth.



Photo courtesy Kim Bourdin, City of Regina

1. OECD Policy Brief, Infrastructure to 2030, January 2008.

2. <http://www.enterprisesaskatchewan.ca/economicoverview>

3. OECD Policy Brief.

4. Statistics Canada, Canadian Economic Observer, September 2007.

5. According to Ministry of Health.

6. RiskAnalytica, Public Infrastructure Underinvestment: The Risk to Canada's Economic Growth, July 2010.

7. United States Agency for International Development, Towards an Urban Future: A Draft Report.

8. Informetrica Limited, Municipal Infrastructure: Macroeconomic Impacts of Spending and Level-of-Government Financing, May 2008, A report for FCM.

P3 Canada Fund Enables Infrastructure Investment

By Shannon Derrick

The federal government recently established the Crown corporation Public-Private Partnerships Canada (PPP Canada) to encourage the further development of Canada's public-private partnership (P3) market. To that end, PPP Canada administers a fund which will provide up to 25 per cent of infrastructure development or construction costs for projects that are best delivered via a P3.

A P3 is a long-term, performance-based approach to procuring public infrastructure. The P3 model requires the private sector to assume significant responsibility for the delivery and on-going performance of the asset, enabling the public sector to access the benefits of schedule certainty, reduced costs, and increased value for taxpayers. The contract sets out the framework for sharing the risks and responsibility for designing, building, financing, maintaining, and/or long-term operation of the asset. That being said, ownership typically remains with the public sector. The contract also sets out the financial benefits of a P3 for the private sector which vary according to the asset being produced but can include completion payment(s), concession-style fees (tolls or fares), and payments from a governmental entity based on the asset performance. In order for the private sector to access these benefits, they are linked to the service outcomes and performance of the infrastructure over the contract period. In this way, schedule certainty and reduced costs are provided.

These benefits are why PPP Canada wants to support the increased adoption of P3s in infrastructure procurement through the P3 Canada fund. The fund provides money to projects based on merit; however, before that can happen, applications must first be assessed to determine whether they meet the three basic eligibility requirements. The first is that the submission must be from a public authority such as a province, urban municipality or public sector body that is established by or under provincial legislation like a municipal airport. The second is that the proposed project must be for the construction, renewal or material enhancement of public infrastructure. The project must fall within one of 16 categories ranging from regional and local airport infrastructure to connectivity and broadband infrastructure to public transit infrastructure. Schools, hospitals, and prisons are not eligible projects. The third requirement is that the partnership framework set out that the private sector must design and/or build and finance and/or maintain and/or operate.

One example of the PPP Canada fund at work is the Chief Peguis Trail in the City of Winnipeg, a joint project between the private sector, the city, the province of Manitoba, and the government of Canada. Through the fund, the federal government provided \$25 million of the \$108 million cost to extend the Trail an additional 3.7 kilometres. The project aims to alleviate traffic pressure by rerouting traffic from local residential streets. The extension

will also include the construction of noise walls and berms to reduce traffic noise, landscaping, and multi-use pathways to encourage walking and cycling. Discussing the project, federal Minister of Public Safety Vic Toews commented that "P3s are an innovative approach to infrastructure investment that will help improve our cities and communities."

The 2012 call for applications is expected to go out in early May of next year and the deadline for those applications is expected to be at the end of June 2012. Despite those dates, PPP Canada has indicated its willingness to assist applicants in preparing their applications at any time of the year. It should be noted that for applications from municipalities, PPP Canada requires a supportive resolution from the municipal government, explicitly referencing the project, the P3 approach, and the application to PPP Canada.

For further information, visit PPP Canada's website at www.p3canada.ca or contact them by phone at 1-877-947-9480. PPP Canada also has a Saskatchewan regional contact: Ted Stobbs, Assistant Deputy Minister, Regional Services Division, Saskatchewan Highways and Infrastructure: ted.stobbs@gov.sk.ca or (306) 787-9287. More information about the Chief Peguis Trail extension project can be found at <http://p3canada.ca/project.php?id=2>.

Water Treatment is Critical in Innovative Infrastructure Sector



Photo courtesy Kim Bourdin, City of Regina

Submitted by Communities of Tomorrow

Saskatchewan is producing an increasing number of exciting companies that offer technologies to provide water and waste water treatment for smaller communities. Three such companies have recently engaged in product development and field-testing projects with Communities of Tomorrow, the organization seeking to help innovative infrastructure technologies become commercially marketable products and services for municipalities.

Jason Tratch, the CEO of EcoLibra Systems Inc., doesn't care where your sewage comes from — he just wants to recover the valuable water and fertilizers from it. Based in Saskatoon, EcoLibra Systems Inc. is a company created to commercialize an innovative waste water treatment and recovery technology. The technology was invented

by the internationally recognized Dr. G. Lakshman, who has worked with world recognized Research and Development organizations and is drawing immediate attention at a global scale.

The new EcoLibra technology is called the Resource Recovery System (R2S). R2S employs mechanical processes and safe, non-toxic, soil-friendly additives to turn sewage into clean water that can be re-used or returned to the environment.

"Our big leap forward is the lack of set back distances and the ability to easily produce water that is so clean you can almost drink it. This makes it extremely attractive for smaller communities," said Jason Tratch. "It is also fully automated and easy to use since it does not use toxic bacterial reactions or lagoons."

EcoLibra reported sales of \$3.5 million in its first two years of business and has projected exponential growth over the next two years. They foresee explosive

growth in multiple new markets and have recently established offices in Europe and Alaska.

Mainstream Water Solutions Inc. is a Saskatchewan company that took old technology and applied it in a new way to provide pure water for small water systems across western Canada. Founder David Keet was looking for a way to purify water for his 130,000 chickens when he came upon a 200-year old technology called slow sand filtration.

The company has since progressed from designing and building water filtration systems for individual farms, to very small municipal users, to commercial applications, and finally to larger municipalities.

"The base technology is literally about passing water through biological sand and carbon. The naturally occurring microbes in the raw water and the sand and carbon filters remove the

Saskatchewan's

contaminants," said Mainstream President and CEO, Doug Price. "The entire process uses no chemicals and is able to achieve very high levels of purity."

Price and his team have evolved the initial Mainstream system which simply filtered out offending contaminants, by incorporating add-on filters that will remove arsenic and uranium, which are surprisingly common elements in available water supplies in North America.

With market research support and project funding assistance from Communities of Tomorrow leveraging a total of over \$400,000 in research and development, Mainstream has moved its filtration systems from the drawing board, to the lab, to demonstration projects, and now to the Canadian market.

Treating water to make it safe and drinkable has not always been truly scalable. The capital investment required for a modern water treatment plant is generally out of range for most small communities. Tisdale-based Tec-Water Supplies Inc. is out to change that. Tec-Water Director, Bill Kidd, designed and patented a technology, the Floc System 100TM, destined to rescue rural communities from the problems plaguing surface water.

With the Tec-Water technology, the cost of water treatment systems for communities using surface water can be reduced by more than 50 per cent.

"This system rids surface water of the turbidity which normally makes it impossible to treat," said Kidd. "And it operates to treat water in small batches that meet community needs, so it only runs when the demand exists."

Tec-Water has been able to generate co-investment valued at over \$1.3 million to prove out their system at the new resort development of Sun Dale, located on Last Mountain Lake. The modifications scale up their current system to cost-effectively utilize surface water to produce a potable water supply that meets Saskatchewan Energy and Resource Management (SERM) guidelines for drinking water.

"These are just a few examples of the kind of new infrastructure technologies we have seen being developed in Saskatchewan," said Communities

of Tomorrow President John Lee.

"The innovative infrastructure sector is becoming an important economic development engine in Saskatchewan, and is providing some significant potential cost savings for municipal governments."

Communities of Tomorrow is leading the creation of the Municipal Innovation Network, which facilitates collaboration between municipalities, industry, and the research community to develop new innovative solutions for our infrastructure challenges.



Photo courtesy Kim Bourdin, City of Regina

Risk Management Advice for Mu

By Murray Sali, SUMAssure Attorney-in-Fact

You are a town council member and you chair the Special Committee for infrastructure revitalization. Your committee has recently received approval to start breaking ground on the town's new recreation centre.

The proposed recreation centre will be the municipality's first major construction project since 2000. The municipality has a lot to lose financially if this project folds. With multiple parties involved, you know the best way to ensure success is by consolidating and maintaining control where you can, but where do you start?

This is a common challenge for municipalities when assessing risk transfer strategies for new construction projects. If your project is large enough, one effective risk management tool is designing and implementing an Owner Controlled Insurance Program (OCIP). As the project owner, project manager or insurance advisor, there are six key areas to address when developing an OCIP for your next infrastructure project:

Risk Assessment

Careful review of the project details including scheduling, specifications and contract form can substantially minimize

the likelihood of disputes and provides a basis for timely resolution should a problem arise. This process will assist municipalities in formulating a risk management plan built around project specific construction needs. The risk assessment begins at the conceptual /design stage, is incorporated into the eventual tender and contract, and continues through the remainder of the project.

Surety Bond Requirements

To properly securitize the funds spent on a project, it is appropriate to bond it in the following manner:

- Bid Bonds – guarantees contractors will hold their bid price if awarded the project.
- Consent of Surety – confirms that successful contractors will be able to provide performance bonds and labour and material payment bonds.
- Performance Bonds – guarantees contractors will complete projects on time, within contract specifications and within quoted prices.
- Labour and Material Payment Bonds – ensures subcontractors and suppliers will be paid by the general contractor.

Property Insurance Requirements

The appropriate risk transfer mechanism for property exposure is a builder's risk or course of construction policy.



municipal Infrastructure Projects

This policy provides coverage against all risks of physical loss or damage, including the result of flood or earthquake. It also provides coverage for materials forming part of the project while in transit, in storage awaiting delivery, or at project site during and after being incorporated into the project. Other considerations for this policy include the following:

- Soft Costs – additional costs caused by the loss or damage to the project that result in a delay in completion and requires additional financing.
- Mechanical Breakdown (Boiler & Machinery) – provides comprehensive coverage for project start-up and testing.

Liability Insurance Requirements

This type of policy addresses third party property damage and bodily injury for exposure outside the project.

Municipalities can ask each party working on site to provide evidence of their own liability coverage, or they can provide a wrap-up policy to provide coverage for all contractors and sub-contractors. This is an effective method of ensuring everyone is covered for a limit appropriate to the size of the project. The wrap-up liability policy can also provide extended coverage for any claims for a period of up to three years following the completion of the project.

The completed operations extension assures that coverage is still available even if the contractor ceases business, or has exhausted their combined liability limits.

Project Professional Liability Insurance

Surprisingly, project professional liability insurance is often overlooked, yet project owners are most likely to file claims against architects or engineers. This policy will respond to errors in design caused by engineers, architects or project managers. Municipalities also have a stake in ensuring that the professional's insurance will respond effectively. Project professional liability provides specific coverage for your project alone, and dedicates limits that are not impacted by other projects that the architects or engineers are working on.

Environmental Liability

Environmental liabilities have and will continue to be growing challenges for municipalities. Whether a regulator or a contaminated site owner, municipalities are often faced with the challenge of facilitating remediation and determining who ought to pay. In an effort to reinforce that the "polluter pays," sound environmental risk management is imperative to keep environmental liabilities off the ledger during a construction project. There are a number of policies offered by the

insurance marketplace that address this issue, including:

- Contractor's Pollution Liability – a policy provided to a contractor that will insure against a range of contracting operations, including environmental, civil and general construction work performed by or on behalf of the contractor.
- Fixed Site Pollution Liability – covers pollution risks associated with owning, leasing, financing or otherwise operating a facility or site.
- Clean-up Costs – a financing mechanism that provides protection for owners, buyers and/or sellers of contaminated properties from cost over-runs associated with remediation of contaminated properties, closure of landfills, hazardous waste treatment or disposal facilities and post-closure care and monitoring of such facilities.

There are a number of benefits for municipalities to act as a project owner when arranging for its insurance on a specific project. With the greatest financial interest, municipalities should ensure coverage is project specific and designed to protect its interests. There is always potential for project coverage to be deficient in protecting the interests of a municipality when policies are shared among a number of contractors. An OCIP cannot guarantee that every possible contingency associated with a construction project will be addressed; however, it does provide municipalities with some certainty with respect to the following:

- Consistent coverage for all contractors and subcontractors involved in the project.
- Broader coverage available for project specific programs.
- Substantial reduction of administrative costs for the municipality.
- Dedicated limits of insurance for the project.
- In many cases, the premium for dedicated project coverage will be less than the premium paid by individual contractors, collectively.
- Completed operations coverage for up to three years, even if the contractor is no longer in business.
- Control of any covered claim and payment thereof on the project as various contractors' insurers will not point fingers and cross claim parties on the project.

As municipalities address their infrastructure deficits, it is in their best interest to consult with an experienced broker with a specific focus on insurance and bonding to understand all of the complexities of an OCIP. With this sound advice and preparation, municipalities will be able to proceed with confidence.

Long Term Sustainable Municipal

By Tanya Doucette, Project Facilitator, Municipal Capacity Development Program

Over the past number of years, many municipalities have welcomed the now-infamous spike in development and economic activity with open arms. It is hard to blame them, when in past, businesses and schools closed because of the lack of residents to sustain a viable community (and vice versa). The increase in the economy and development, however, has had a large impact and placed a great deal of strain on the current municipal infrastructure. Infrastructure that was sitting under-utilized and slowly deteriorating with age a number of years ago can no longer handle the capacity new development has brought. Many municipalities struggle year to year to repair, upgrade and replace infrastructure for the growing demand which continues to knock at their door.

Though the solution to repairing the growing infrastructure deficit usually consists of the refrain “money, time and manpower”, municipalities must take control. We can learn from the mistakes of Alberta by engaging in long term planning to ensure sustainability, not just continued growth, of our infrastructure and economic development. Long term visioning and planning requires a number of steps. As the first in a series of articles, MCDP will delve into the process of building your community and region into one that is sustainable, viable and relevant for current and future residents without jeopardizing the economic boom advantage.

The first step in getting ahold of the development and economic overflow is by focusing on long term visioning. Vision is “the act or power of anticipating that which will or may come to be”. So many municipalities still feel the need to say ‘yes’ to every offer for development and business in order to keep their community sustainable. Random continued growth does not always equal sustainability. Municipalities need to decide for themselves what a sustainable future looks like specifically for them. Do you want it to be a bustling metropolis of activity, a quiet country retreat, or maybe a bedroom community to a major centre?

To accurately understand the future vision of the community you must involve your citizens and learn what they want their community to be. Without community engagement, you may lose the citizens you already have, to create a future vision that may not be shared by all. Community engagement can be done by holding a community meeting, handing out a survey at local steak nights, providing community organizations with a list of questions to ask their members, or simply going door-to-door and asking what residents think of the community. Once they have heard the voice of the people, municipal leaders can sit down and determine what the vision is for the future, the required mission, and the values to uphold as a community.

Though visioning sounds like a “pie-in-the-sky” approach to municipal planning, it is important to break the vicious cycle of continually welcoming growth without a plan or infrastructure in place to handle it. The long term visioning process and the three key visioning statements (vision, mission, and values) will provide a focus and the basis to prioritize current needs and future decisions in the

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Planning: Visioning

community regarding infrastructure, housing, economic development and other local and regional priorities. In the next article we will discuss the need to assess the current situation of a municipality as an important step of the long term planning process.

If you would like to learn about the services MCDP offers please visit our website at www.municipalcapacity.ca.



Photo courtesy Shannon Derrick



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Groundbreaking Asset Management Undertaken in Saskatchewan

By Nicole Allen, VEMAX Management

Recently, eight municipalities from Saskatchewan and British Columbia joined together to take part in an exciting asset management project – the creation of a municipally driven asset management plan. This project was a first of its kind, with participating communities utilizing methods and training developed in Australia. All the participants had positive comments on their pilot experience, with James Moller, manager for the City of Humboldt saying, “The City of Humboldt’s participation in the recent NAMS Asset Management pilot study has been both eye opening and rewarding. We are in the process of being more responsible for our existing (and future) infrastructure assets, and are developing long term financial plans based on sound infrastructure asset management plans.”

The NAMS pilot project involved four local communities - the City of Humboldt, Town of Shellbrook, Town of Macklin and

RM of Wilton. These communities have already seen an impact on the way they do business as a result of the pilot. The training involved in the project provided each community with a “first cut” asset management plan, a risk management plan, and eventually a 10 year financial plan for one asset in each community. A key aspect of this pilot was to use existing information and to improve that information over time.

The Tangible Capital Asset (TCA) work completed over the past few years was a first step toward better management of our infrastructure. In order to continue this improvement process asset management and long term financial planning must be implemented. The process of compiling the TCA information was a significant undertaking for municipalities. This pilot project’s goal was to utilize the TCA information through simple processes which created an asset management and long term financial plan.

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ment Pilot Project

The methods used in the pilot were developed in Australia and are used by about 40 per cent of municipalities in Australia, the profile of which range from small to very large organizations. The methods utilized for this pilot were developed to assist smaller communities who have limited asset management resources. The pilot was implemented through a three-day training workshop and supported by web-based templates.

A presentation of the pilot results is scheduled for this fall at the Saskatchewan Asset Management Workshop planned for October 19 and 20 in Saskatoon. The workshop will also include sessions by Chris Champion, CEO of the Institute of Public Works Engineering of Australia, who will be discussing the Australian experience of implementing asset management.

In the past year there has been a significant increase in the interest of Saskatchewan communities in starting asset management practice, as municipalities have become aware of the substantial benefits realized from basing decisions on information provided by both asset management and long term financial plans. As Kim Gartner, CAO of the Town of Macklin stated, "If this type of program would have been available, and possibly mandatory, 15 years ago we would be in a much better position to manage our current and future assets... I really look forward to the months and years that lay ahead in the implementation of an asset management program for my community."



Participants in the NAMS Training Session in Saskatoon recently included: Back Row: Gordon Sparks, Mike Tanchuk, Kelly Hoare, Tara Kerber, Bonnie Bjorndalen, Mitch Criton, James Moller, Wally Wells, Glen Dow
Middle Row: Sherry Magnuson, Amanda Wildeman, Wendy Gowda, Rachel Cheke, Martino Verhaeghe, Teresa Florizone, Linda Fraess, and Shelley Funk. Front Row: Kim Gartner, Steve Brown, John Howard, Allen Mapstone, Joe Doxey, Daniel Bernhard, Nicole Allen, Renita Jubinville, and Jordan Schofield. Missing: George Tomporowski.

PROVIDING WORKSHOPS FOR PERSONAL GROWTH
THAT EMPOWER AND MOTIVATE



ACHIEVE Training Centre Workshops Offered in Saskatchewan this Fall

CONFLICT RESOLUTION SKILLS

Saskatoon: November 1, 2011; Regina: November 3, 2011

Many conflicts would not spiral out of control if people used conflict resolution techniques that are easy to learn and utilize. This workshop will teach participants to understand the dynamics of conflict and equip them with the skills needed to respond confidently when faced with situations of conflict.

DEALING WITH DIFFICULT PEOPLE

Saskatoon: November 2, 2011; Regina: November 4, 2011

This workshop will analyze what is happening in exchanges with difficult people and demonstrate how people can adapt their strategies to bring about more productive conversations with those they find difficult. The effect of communication styles will be explored, in particular, how different styles interact with each other.

WORKING THROUGH PERSONALITY DIFFERENCES

Saskatoon: November 30, 2011

Understanding the various personality styles and their impact on workplace dynamics helps people communicate and work successfully with others. Utilizing the Myers-Briggs Type Indicator (MBTI), this workshop will provide participants with a personal assessment, equip them to understand personality styles which are different than their own and provide strategies to effectively interact with.

ASSERTIVE COMMUNICATION

Saskatoon: December 1, 2011

Being assertive in communication is the ability to express positive and negative ideas and feelings in a transparent, welcoming and direct way - to state clearly and without defensiveness what one needs. Participants of this workshop will build an awareness of their communication patterns and learn to deal confidently with people around them.

For more information about ACHIEVE Training Centre programs and to register, please visit our website at www.ctrinstitute.com, email info@achievecentre.com or call 1.204.452.0180.

ACHIEVE Workshop Fees

\$150 (early)* \$180 (regular) + GST

***3 weeks prior to workshop
Fees listed are per workshop**



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2011 FALL CTRI PUBLIC WORKSHOPS IN SASKATCHEWAN

DE-ESCALATING POTENTIALLY VIOLENT SITUATIONS

Saskatoon: December 15; Regina: December 20

This workshop is designed to teach people to de-escalate potentially violent situations through assertiveness and interpersonal communication. Participants will develop a clear understanding of how to assess the potential for violence and respond with a diverse set of interpersonal tools and strategies designed to defuse potentially violent situations.

CRISIS RESPONSE PLANNING

Saskatoon: December 16

The impact of critical incidents (violence, suicide, tragedy, etc.) requires schools, communities and organizations to be prepared to respond to these unfortunate events. This training will focus on how to organize effectively and quickly at a time of high stress so that groups are better prepared to respond to the emotional needs of those affected by a critical incident.

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