TRANSPORTATION ASSOCIATION OF CANADA

TAC News

Volume 34 - Summer 2008

Transportation Practitioners to Benefit from Environmental Management System Guide

An environmental management system user guide for transportation professionals will soon be published by TAC.

The guide will assist Canadian jurisdictions in making decisions on the planning, design, implementation and maintenance of environmental management system (EMS) frameworks, as well as on related costs including operations and maintenance implications. The report also contains a discussion of EMS best practices, various success stories and lessons learned.

An environmental management system is part of an organization's approach to developing and implementing an environmental policy and to managing related effects. It comprises a set of management procedures that allows an organization to analyze, control and reduce the environmental impact of its activities, products and services, and to operate with greater efficiency and control. EMSs can be applied to both large and small organizations in the public and private sectors.

The level of knowledge and use of environmental management systems varies within the transportation community. Some agencies are very familiar with these systems, while others may have little or no knowledge of them. In addition, some agencies have implemented environmental management systems without necessarily identifying them as such.

With this in mind, the Environmental Issues Management Standing Committee of TAC's Environment Council identified a need for documentation outlining a flexible approach to planning, implementing and maintaining an EMS from a transportation perspective. This resulted in the initiation of a project to prepare the guide.

The upcoming guide is divided into two parts. The first explains how to develop and apply an EMS within an organization. The second features practical examples and case studies supporting the first part of the publication.

The guide is structured in such a way as to allow readers to easily locate information. Various symbols and tables were used to emphasize points, help focus information and provide examples, tools and advice without interrupting the flow of the text.

A TAC steering committee was responsible for the project which was carried out by **Ecoplans Limited** with complementary work done by Thomplan.

The *Environmental Management Systems (EMS) User Guide for Transportation Professionals* will be published in the coming months. An announcement will be posted on TAC's website once the guide is available.

Green Guide for Roads Task Force Established

The formation of a task force to prepare a green guide for roads was recently approved by TAC's Board of Directors.

Originally proposed by the Urban Transportation Council (UTC), the *Green Guide for Roads* will recognize that roadway infrastructure is an integral part of providing mobility for people and goods. The work is intended to promote multi-modal transportation principles, sustainable transportation and "green" construction techniques.

The guide is expected to be developed in partnership with the Canada Green Building Council.

Chaired by a representative of the UTC, the task force will have representation from various TAC standing committees and councils. Its members, who will conduct their work on a voluntary basis, are expected to have completed the guide by the fall of 2009.

In This Issue

2008 TAC Annual Conference and Exhibition

Transportation – A Key to a Sustainable Future

September 21-24
Westin Harbour Castle Hotel
Toronto, Ontario

DELEGATES – A comprehensive registration package, including a detailed advance program, will be sent to print version recipients of *TAC News* in June. The material will also be available on the Web (www.tac-atc.ca) in mid-June. (**Early registration information is already posted on TAC's website.** Delegates are encouraged to register online and qualify for a major prize! They are also **urged to make** their **hotel reservations very early to avoid almost certain disappointment.**)

EXHIBITORS – A limited number of exhibit spaces remain to be rented. Visit TAC's website for up-to-date exhibition information and book your space now!

SPONSORS – Demand for sponsorship opportunities has been strong this year so reserve one of the remaining packages as soon as possible. Browse the TAC website for full details. Also see the sponsor insert in this issue of the newsletter.

www.tac-atc.ca

Photo: Tourism Toronto

TAC MEMBERS' HANDBOOK AVAILABLE SOON

A handbook for TAC council and committee members is being developed.

The handbook will help new and existing volunteers understand what they can expect when participating in association activities.

The handbook outlines TAC's mission and structure, describes the roles and responsibilities of committee members, highlights key association events and deadlines, as well as answers questions frequently asked about councils and committees.

Hundreds of volunteers serve on TAC's councils, task forces, standing committees, subcommittees and project steering committees. Through those groups, the association makes a significant contribution to transportation research, technology and practice at the national and international levels.

Currently in its final review stages, the handbook will be available online in the coming weeks. It will be posted in the members' workroom of TAC's website.

A quarterly publication of the Transportation Association of Canada
ISSN 0317-1280 ~ Publications Mail Commercial Sales Agreement No.1708201
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TAC is a national association with a mission to promote the provision of safe, secure, efficient, effective and environmentally and financially sustainable transportation services in support of Canada's social and economic goals.

The Association is a neutral forum for gathering or exchanging ideas, information and knowledge on technical guidelines and best practices.

In Canada as a whole, TAC has a primary focus on roadways and their strategic linkages and inter-relationships with other components of the transportation system.

In urban areas, TAC's primary focus is on the movement of people, goods and services and its relationship with land use patterns.

FIVE TECHNICAL PROJECTS GET APPROVAL

Five projects have recently been given the green light by TAC's Chief Engineers' Council.

Sponsor funding is now being sought for the projects which cover pavement asset design and management, traffic-collision prone location screenings, blinking LED borders on road signs, speed limit signing for highway ramps and chevron alignment signs.

Pavement Asset Design and Management Guide

Proposed by the soils and materials and pavements standing committees, the first project is intended to revise TAC's *Pavement Design and Management Guide* and to prepare a new edition addressing pavement asset design and management.

The 1997 edition of the guide will be evaluated and updated where necessary. Key update areas are expected to include infrastructure, asset management and valuation, new pavement structural design methodologies including mechanistic-empirical methods, as well as innovative materials like warm asphalt, pervious concrete and "green" pavements.

The new guide will be directed at meeting the needs of engineers and technologists in public agencies, industry and academia, from entry to senior levels.

Synthesis of Practices for Collision-prone Location Screenings

Initiated by the Road Safety Standing Committee, the second project will result in a national synthesis of practices, with recommended best practices, for collision-prone location screenings.

In order to determine high-risk areas where large numbers of people are killed or seriously injured, many road authorities undertake scientific investigations such as collision-prone location screening, blackspot programs or network analysis. These activities serve to identify infrastructure deficiencies that may have contributed to the collisions and to determine appropriate mitigation measures.

It should be noted a mid-term review of the *Road Safety Vision 2010* initiative recommended that more Canadian road authorities adopt the location screening practice.

Blinking LED Borders on Signs

A project put forward by the Traffic Operations and Management Standing Committee (TOMSC) is designed to review operational and maintenance aspects of blinking light emitting diode (LED) borders on signs and to make recommendations regarding their use in Canada.

The recommendations will address the addition of blinking LED border signs in TAC's *Manual of Uniform Traffic Control Devices for Canada* and the push-button activation of these signs to replace amber flashers at special crosswalks and school crossings.

The project report will include any application criteria and implementation guidelines required. If necessary, revisions to the traffic control manual will also be developed as part of the project.

Ramp Speed Limit Signing

Proposed by TOMSC, the fourth project approved by the Chief Engineers' Council is aimed at establishing a comprehensive standard practice for signing off and on-ramp speed limits appropriate for use across Canada.

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TAC Omnibus Sponsors

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The major deliverable from this project would be a synthesis of practice with best practice recommendations. If indicated, revisions will also be prepared for the previously mentioned TAC traffic control manual.

Chevron Alignment Signs

The fifth project, also emanating from TOMSC, will result in the development of national guidelines on the installation and use of chevron alignment signs along curves.

Work will include a review of existing practices across Canada and the United States, related research, as well as human factors and installation principles related to sign interpretation and recognition. If necessary, field testing will be undertaken to evaluate the efficiency of recommended guidelines.

In addition to the guidelines, an update to TAC's traffic control manual will be delivered as part of the project.

Chief Engineers' Council Appointments

Five organizations recently accepted invitations to appoint representatives to TAC's Chief Engineers' Council.

At its April meeting, the Chief Engineers' Council (CEC) welcomed Steve Damp of the **Canadian Construction Association**, Jacques Legault of the **Intelligent Transportation Systems Society of Canada** (ITS Canada) and Andy Vandertol of the **Canadian Institute of Transportation Engineers.** Norman d'Andrea was subsequently appointed to represent the **Association of Canadian Engineering Companies.**

The **Canadian Society for Civil Engineering** has also accepted an invitation from the CEC, but has not yet named its representative.

All of the appointments are for a two-year term extending to March 2010.

The CEC comprises the chief engineers from the federal, provincial and territorial departments of transportation and from ten of Canada's larger municipalities. In addition, members from the private sector or other agencies may be appointed for a renewable period of two years.

Members are appointed in order to bring a broader perspective to the work of the CEC and assist with the identification of emerging issues. These representatives, who are selected based on recognized expertise or technical leadership, have full voting rights on matters addressed by the council, except for the approval of national standards and guidelines.

New Technical Program Director at TAC

Sarah Wells has been named TAC's director of technical programs.

Sarah, who was previously assistant director of technical programs, takes over from John Pearson, who had assumed the dual role of director of technical programs with TAC and director of intergovernmental programs for the Council of Deputy Ministers Responsible for Transportation and Highway Safety.

Sarah, who received her PhD in civil engineering from the University of Waterloo, has worked for the association for the past 13 years. She began her career at TAC as technology transfer manager for the Canadian Strategic Highway Research Program (C-SHRP). She subsequently became program manager for the Chief Engineers' Council, playing a key role in implementing TAC's very successful sponsored project program.

GREAT LAKES ST. LAWRENCE SEAWAY STUDY PLACES CLIMATE CHANGE FRONT AND CENTRE

Editor's Note: In this contribution to TAC News, *Russ Smith, a senior environmental advisor with Transport Canada, writes about the climate change aspects of a major Canada/U.S. study of the Great Lakes St. Lawrence Seaway system. Proposed by TAC's recently formed Task Force on Climate Change, this feature is the second article to profile climate change initiatives of member agencies. Other agencies are encouraged to contact the newsletter editor with a view to submitting articles or briefs highlighting their own projects in this area.*

The Great Lakes St. Lawrence Seaway (GLSLS) Study was announced by the governments of Canada and the United States last November, following years of extensive collaboration between seven organizations, including **Transport Canada**, the U.S. Department of Transportation, the U.S. Army Corps of Engineers, the Canadian St. Lawrence Seaway Management Corporation, the U.S. Saint Lawrence Seaway Development Corporation, **Environment Canada** and the U.S. Fish and Wildlife Service.

It is the first time that so many organizations have joined their efforts to study the seaway system and the first time that such a wide range of issues affecting the economy, the environment and engineering have been examined within the scope of one initiative.

The study itself was carried out by experts organized into three working groups. The Economic Working Group was tasked with investigating the current and possible future role of the GLSLS in both regional and global commercial and transportation networks. The Environmental Working Group examined the impact of navigation and its operations within the larger context of ecological conditions in the Great Lakes basin and St. Lawrence River. Finally, the Engineering Working Group examined the current physical condition of lock system infrastructure, evaluated its reliability and developed options for its future maintenance.

How Important is the Seaway System?

The GLSLS system lies at the heart of what has become one of the largest and most dynamic economic hubs in the world. It serves producers and manufacturers that account for about one third of North America's economy, and it operates with a reliability of more than 98 percent.

"The GLSLS system has the potential to alleviate congestion on the road and rail transportation networks as well as at border crossings in the Great Lakes basin and St. Lawrence River region."

As the economy and trade continue to grow over the next 50 years, all modes of transportation will be faced with increases in traffic. The seaway system has the capacity to carry twice the volume of its current traffic, and could be better utilized in conjunction with other modes of transportation.

Beauharnois Locks, downstream of Valleyfield, Quebec

Source: St. Lawrence Seaway Management Corporation

When the St. Lawrence Seaway opened in 1959, planners envisaged that it would carry grain from North America's prairies to the markets of Europe and the Soviet Union. Subsequent changes in those markets have reduced demand for North American grain, which has recently found other buyers in the Pacific region.

While grain still moves through the GLSLS, its volumes have been overshadowed by huge shipments of iron ore, which are carried from Minnesota and Wisconsin to the smelters of Ohio. Today, the waterway transports more than 80 percent of the iron ore used in U.S. steel production.

The system also carries vast quantities of coal from Montana and Wyoming to power generating stations along the shores of the Great Lakes. Other commodities shipped through the system include limestone, coke, salt, petroleum products, chemicals, processed iron and steel, as well as a variety of goods carried in containers.

Environmental Considerations and Climate Change Concerns

The Great Lakes basin and St. Lawrence River are a unique water resource of major significance to the environment. As the world's largest fresh water system, they support the livelihood and activities of 10 per cent of the U.S. population and 25 per cent of Canada's. However, this ecosystem has been degraded by many different human activities, one of which is commercial navigation.

The ecological state of the region's associated lakes and rivers as well as the fish and wildlife that rely on them has a direct impact on the future vitality of the GLSLS system. The size of the system and the volume of traffic passing through it inevitably affect the surrounding environment. Yet commercial navigation is only one of the many factors influencing the environment. To preserve and maintain the region's vitality, it is critical to identify and control the most significant navigational and non-navigational environmental stressors.

The study's environmental working group reviewed the current environmental conditions of the Great Lakes basin and the St. Lawrence River, highlighting the impacts on the environment arising from commercial navigation. As well, the working group looked at anticipated future trends that may affect

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key ecosystem components. Finally, it considered ways of mitigating any future negative environmental impacts associated with commercial navigation. Within this context, the Environmental Working Group considered the environmental implications of potential changes to the volume or type of traffic passing through the system as well as any effects associated with operating or maintaining the infrastructure of the GLSLS.

"A reduction of 4 to 24 percent in net water supply may lead to a drop in water level of between 26 and 112 cm in lakes Huron and Michigan, which would have an important impact downstream."

The ecosystem of the GLSLS is vulnerable to a variety of stressors. When the system was originally completed, environmental protection was not a high public priority and environmental impacts were poorly understood. Over time, however, it became clear that the construction, operation and maintenance of the GLSLS had a number of significant effects on the ecology of the basin.

A qualitative sensitivity assessment was undertaken through a review of the environmental stressors. This work allowed the importance of climate change to the operation of the seaway system to be highlighted.

Changes to the climate are projected to reduce water levels throughout the Great Lakes in the coming 50 years. A reduction of 4 to 24 percent in net water supply may lead to a drop in water level of between 26 and 112 cm in lakes Huron and Michigan, which would have an important impact downstream.

TABLE OF ENVIRONMENTAL STRESSORS

Class of Stressor		Stressor
Global	Climate Change	
Non-navigation-related	Development and Land Use	Water withdrawal & diversions Introduction & transmittal of NIS* Air emissions Industrial/municipal effluent Solid waste disposal Landscape fragmentation Runoff Shoreline alteration / hardening Noise & vibration Erosion and sedimentation
	Water-based Recreation and Tourism	Introduction & transmittal of NIS* Shoreline alteration / hardening Waste disposal / pollution Erosion and sediment re-suspension Wildlife conflicts
Navigation-related	Channel & Port Maintenance	Channel modification Dredge material placement Shoreline alteration / hardening Maintenance dredging
	Water Management	Water level manipulation
	Land-based Support Activities	Infrastructure development Facility maintenance Uncontrolled releases
	Ship Operations	Introduction & transfer of NIS* Ship's air emissions Biocides (antifouling) Accidents / spills Noise & vibration Waste disposal Prop wash, surge and wake Cargo sweeping Groundings / anchoring Wildlife encounters
	Ice Breaking	

* NIS: non-indigenous invasive species

The impact on Lake Superior would be about half of that level while the potential effect on Lake Ontario is unknown because of water-level regulation.

Depending on the pattern of regulation and capacity to manage extreme climatic situations, the impact on the St. Lawrence River may be reduced or increased. Changes in water level caused by climate change would have their greatest effects on wetlands, coastal and riverine habitats. A rise in sea level would increase water levels in the St. Lawrence estuary and river accompanied by a landward (upstream) migration in the salt-fresh water interface. The tidal change may be more important than migration from

saltwater and this would likely have a major impact on wetland habitats such as those of Lake St. Pierre, Quebec.

Increased temperatures would alter species habitats and could reduce levels of oxygen dissolved in the water. Warmer conditions may also reduce the duration of ice cover throughout the region which, in turn, can increase evaporation and reduce the need for ice breaking. Changes in ice cover may also disrupt fish and mammal behaviour.

“The ecosystem of the GLSLS is vulnerable to a variety of stressors. When the system was originally completed, environmental protection was not a high public priority and environmental impacts were poorly understood.”

Key Observations

The GLSLS study led to four key observations, the first of which is central to climate change mitigation.

- The GLSLS system has the potential to alleviate congestion on the road and rail transportation networks as well as at border crossings in the Great Lakes basin and St. Lawrence River region.
- A stronger focus on shortsea shipping such as cross-lake trips would allow the GLSLS system to be more closely integrated with the road and rail transportation systems, while providing shippers with a cost-effective, timely and reliable means to transport goods.
- The existing infrastructure of the GLSLS system must be maintained in good operating condition in order to ensure the continued safety, efficiency, reliability and competitiveness of the system.
- The long-term health and success of the GLSLS system will depend in part on its sustainability, including the further reduction of negative ecological impacts caused by commercial navigation.

Member Feedback Wanted!

TAC is actively seeking member input as part of the development process for its next three-year business plan to be launched next April.

An external consulting firm, Vision Research, has been hired to arrange and moderate a series of telephone focus groups. The firm will be recruiting the focus group participants from a list of current and past TAC members, as well as council and committee members.

Members contacted to participate in focus groups, which will be run in both official languages, are encouraged to set aside the time to do so.

In addition, a survey has been developed by TAC staff and Vision Research to seek broad input on TAC programs, services and communication vehicles and also to obtain an overall satisfaction rating. Targeting the entire TAC membership and customer database, the survey will be finalized based on input from the Board and focus groups.

Members and others should receive the survey no later than mid-June. It will also be available directly from the TAC website homepage. Survey recipients are asked to complete the survey before taking their summer holidays as the business planning process will begin in August. Participants will have a chance to win a $100-gift certificate from Lee Valley Tools.

Finally, all members of the Board of Directors have been contacted to set up a one-on-one discussion with TAC executive director Michel Gravel. Topics to be discussed include the association’s perceived value to members, changes in the members’ operating environment, an assessment of the organization’s recent performance and future directions for TAC. Input on the annual conference will also be sought.

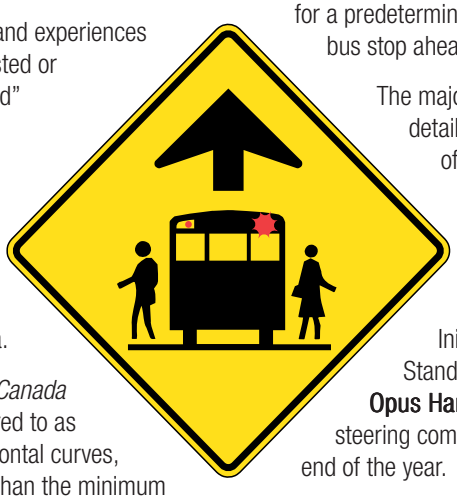
In the end, the input and insight gleaned from the focus groups, survey and Board discussions will help TAC improve its programs and services so that members and customers across the country derive even more value from the association.

Static Warning Devices in Advance of School Bus Stops to Be Studied

TAC has launched a project on the use of static warning devices with flashing beacons in advance of school bus stops.

The new project is intended to review the practices and experiences of Canadian and American jurisdictions that have tested or implemented static – not activated – "bus stop ahead" warning devices with beacons, as well as relevant literature.

More specifically, the objectives of the initiative are to investigate the operational and maintenance aspects of available device types and to make a recommendation on the appropriateness of the device for use across Canada.



TAC's *Manual of Uniform Traffic Control Devices for Canada* contains a "School Bus Stop Ahead" sign. Also referred to as WC-9, the sign is recommended for use where horizontal curves, vertical curves or foliage limit sight distance to less than the minimum stopping sight distance. The sign is constantly displayed but because the hazard is intermittent, motorists may become desensitized to it and safety in the school bus loading/unloading area can be compromised.

Where there is limited sight distance to a bus stop, it is critical that motorists have adequate warning to reduce speed, brake and avoid erratic manoeuvres, ensuring the safety of school bus users and others.

Some jurisdictions have experimented with flashing beacons in conjunction with the WC-9 warning sign. The beacons continue to flash for a predetermined time and serve to warn drivers that the school bus stop ahead is in use.

The major deliverables of the project include a final report detailing the research and recommendations on the use of static flashing beacons in conjunction with the WC-9 sign. The report will also provide application criteria and guidelines and recommend appropriate revisions to the traffic control devices manual.

Initiated by TAC's Traffic Operations and Management Standing Committee, the project will be carried out by **Opus Hamilton Consultants Ltd.** under the direction of a steering committee. Work is expected to be completed by the end of the year.

The project is being sponsored by **Alberta Transportation,** the **New Brunswick Department of Transportation,** the **Ontario Ministry of Transportation** and the **Quebec Ministry of Transport.**

Urban Transportation Indicators Survey Project Launched

TAC will conduct another survey of urban transportation indicators. The survey will be the fourth in a series which have individually and collectively provided an important picture of transportation trends in Canadian urban areas.

The project will build on TAC's previous urban indicator surveys conducted in 1995, 1999 and 2003.

Using data collected during the 2006 Canadian census, the new survey will result in an extensive database, as well as a comprehensive report describing the survey results and analyses. Data from the previous surveys will be integrated in both the analyses and the database.

The overall goal of the survey program is to build a consistent, reliable database on urban transportation and to develop indicators for Canadian municipalities and transportation stakeholders.

Interpreting data and understanding urban transportation trends has helped all levels of government, as well as numerous research groups and agencies, in studying and establishing the integrated land use and transportation policies and plans that are needed to achieve sustainable urban transportation.

The final report and a summary briefing will be made available free of charge on TAC's website.

The briefing document for the last survey can be found in the reading room of the association's website.

The project was proposed by the Transportation Planning and Research Standing Committee of the association's Urban Transportation Council. It will be carried out by a consultant under the direction of a steering committee. The consultant is expected to be selected this summer with the project report scheduled to be available by the middle of 2010.

Sponsoring this effort are **Transport Canada, Alberta Transportation,** the **British Columbia Ministry of Transportation,** the **Ontario Ministry of Transportation,** the **Region of Peel (Ontario),** the **Quebec Ministry of Transportation** and the **South Coast British Columbia Transportation Authority (TransLink).**

Work Contracted for Permafrost and Winter Road Maintenance Projects

TAC has awarded contracts to carry out two recently launched projects.

EBA Engineering Consultants Ltd., working with Laval University, has been selected to develop a best practices manual for the construction, maintenance and rehabilitation of transportation facilities in permafrost regions.

Work began in April and will follow an aggressive schedule in order to ensure the manual is ready for publication in the summer of 2009.

Meanwhile, **Opus Hamilton Consultants Ltd.** has been given a contract to prepare a report on winter road maintenance performance measurement using surface-friction testing equipment.

The consulting firm has already undertaken a literature review as part of the project. Publication of the report is slated for early next year.

More detailed information on both projects was carried in the spring issue of *TAC News* and is also available on TAC's website, under projects & publications.

MEMBERSHIP HAPPENINGS

Totten Sims Hubicki Associates Limited (TSH) and **Tecsult Inc.** are merging with Los Angeles-based AECOM Technology Corporation. AECOM, which employs more than 35,000 people in over 60 countries, is considered an international leader in engineering, design, program management and consulting for the transportation, environmental, facilities and developing world markets. TSH, whose head office is in Whitby, Ont., will become the full-service flagship for AECOM in Eastern Canada. Montreal-based Tecsult will be spearheading AECOM's activities in Quebec. Both TSH and Tecsult will continue to operate under their existing names.

iTRANS Consulting Inc. is one of the top 50 best workplaces in Canada. In fact, iTRANS has been ranked in the top 10 in Canada for two consecutive years – as no. 9 in 2007 and as no. 4 this year. Based completely on staff surveys, the definition of a great place to work is a place where employees "trust the people they work for, have pride in what they do, and enjoy the people they work with." The surveys are conducted by the Great Place to Work Institute Canada.

McCormick Rankin Corporation (MRC) has been recognized as one of Canada's 50 best managed companies. The recognition is given to companies that have implemented world-class business practices and created value in innovative ways. Applications are reviewed by an independent judging panel. The award is sponsored by Deloitte, CIBC Commercial Banking, the National Post and Queen's School of Business.

The Saskatchewan Government and the **University of Saskatchewan** have embarked on a partnership to position the province as a North American leader in the application of new highway and road construction technologies by launching the development of the Saskatchewan Centre of Excellence for Transportation and Infrastructure. To be housed in the Saskatoon university's College of Engineering, the centre will be a transportation research and training hub unique in Western Canada. The **Ministry of Highways and Infrastructure** will initially contribute up to $1 million toward applied research and specialized training programs through the centre. The centre will bring together innovators from the private sector, academia and government to develop transportation solutions. It will have a strong focus on infrastructure management and design, along with materials testing.

Proposed Regulations on VOC Content in Coatings Published in Canada Gazette

Comments about proposed federal regulations on volatile organic compound concentration limits for architectural coatings, including traffic marking paints, can be submitted to **Environment Canada** until June 25.

As previously reported in *TAC News*, Environment Canada is working to address the question of volatile organic compound (VOC) emissions resulting from the use of consumer and commercial products in Canada. This has led to proposed VOC regulations which were published in part 1 of the *Canada Gazette* in late April.

Background information on the proposed regulations is available on Environment Canada's website at www.ec.gc.ca/nopp/voc/. The proposed regulations can also be consulted on the ministry's site, under the Canadian Environmental Protection Act (CEPA) Registry.

Stakeholders are invited to submit comments on the proposed regulations during a 60-day public consultation period that ends June 25.

TAC's Traffic Operations and Management Standing Committee and Chief Engineers' Council have been following the development of the regulations. Members of these two groups have participated in an Environment Canada-led working group that has discussed technical issues related to the implementation of low-VOC traffic marking paints.

Concerns have been expressed that regulations limiting VOC content in traffic and pavement marking materials could have a significant impact on the construction, maintenance and operation of roadways in Canada, especially in wet, cold seasons.

Council members and others are working with new technologies that may deliver lower-VOC paints whose performance is similar to that of higher-VOC paints. However, the council has advised Environment Canada that more time and work are needed to resolve concerns with curing in low-temperature or high-humidity applications of such paints.

The council will continue to monitor the issue and to share information on new lower-VOC paints.

Transportation Information Service in Action

New Information Hub on TAC Website

TAC's Transportation Information Service (TIS) has developed an information hub to help members conduct searches more quickly. The new hub, located on the association's website, provides access to the familiar library databases as well as a few new services.

From the hub's main page, members can reach the search pages for the TAC library catalogue, the Canadian Surface Transportation Research Database and the Current Innovations and Practices Database, which have been available online for some time.

The hub also offers three new information services – a clipping file, a list of conferences and searchable TAC council and committee minutes.

The clipping file database contains abstracts of articles relevant to surface transportation, and has the ability to search past issues of TAC's *Transportation Intelligence Bulletin* for published items.

The conference database holds descriptions of upcoming conferences around the world. It can also be searched by sponsor, dates, city or topic.

The minutes database is a new service. It allows members to search the full-text minutes of councils and committees from 2004 to 2007, and provides links to portable document format (PDF) versions of the minutes.

Finally, the hub's main page also offers quick links to recent library acquisitions and articles, upcoming conferences and documents intended for TAC's Climate Change Task Force.

TIS invites members to check out the new hub at www.tac-atc.ca/private/tis/infoportal.cfm and to provide feedback on what works well, what could be improved and what could be added.

PEOPLE IN THE NEWS

At the Ministry of Transportation of Ontario, **Brian Gaston** has been appointed assistant deputy minister responsible for provincial highways management.

Rob Penny is now assistant deputy minister for environmental management with Alberta Environment.

Weldon Moores has been named assistant deputy minister responsible for strategic and corporate services at Newfoundland and Labrador Transportation and Works.

Jean Couture has resigned from his position of assistant deputy minister for transportation policy and safety at the Ministry of Transport of Quebec (MTQ) in anticipation of his retirement at the end of the year. He will remain at MTQ until then as an advisor to the deputy minister on several major projects.

At the New Brunswick Department of Transportation, **Kim Mathisen** has assumed the position of director of planning and land management, replacing **Brian McEwing**, who has retired. **Carol MacQuarrie** has been named director of maintenance and traffic. She succeeds **Henry Palmer**, who will be leading a comprehensive review of the department's bridge inspection procedures.

Appointed assistant chief engineer, streets, for the City of Vancouver is **Neal Carley**. He replaces **Ian Adam** who has retired.

Bernie Clancey has been named director of highway engineering services at the Nova Scotia Department of Transportation and Infrastructure Renewal. He succeeds **Ralph Hessian** who has taken retirement.

Cam Nelson is now senior project manager, transportation, Calgary Infrastructure West, with Morrison Hershfield Limited.

Steve Goodman has opened an Ottawa office of AME Materials Engineering. He is branch manager / senior pavement engineer.

Chantal Guay is the new chief executive officer of Engineers Canada (Canadian Council of Professional Engineers).

Terry Zdan has taken a two-year assignment as research director of the Centre for Sustainable Transportation.

Norman Zapf, a long-time TAC supporter, passed away in February. Mr. Zapf joined the Ministry of Transportation and Highways of British Columbia in 1950 and worked in a number of its branches for 37 years. He was named executive director of the Construction Division in 1986. Mr. Zapf personally headed teams responsible for the selection of new routes through B.C.'s mountains and developed new construction methods, standards and environmental guidelines as he worked on major projects such as the Island and Coquihalla highways. He served on and headed several of the association's committees, including the group that prepared the first Canadian highway design standards manual.

It's Now the Education and Human Resources Development Council

TAC's Education Council has been renamed the Education and Human Resources Development Council, reflecting its revised terms of reference and work plan.

Approved by the association's Board of Directors at its April meeting, the changes were proposed by the council in response to needs identified by TAC's membership and the transportation industry as a whole.

Under its new mandate, the council will provide a neutral forum for the exchange of information about human resources and education issues in the transportation sector, with a particular focus on those affecting Canadian organizations.

The body's work will address current and emerging issues in the transportation sector, including recruitment and retention of transportation professionals, improving knowledge management within organizations, encouraging students to enter transport sector professions and monitoring retention initiatives, as well as increasing public awareness of the importance of transportation to Canada's economy and to mobility.

The council was formed in 2002 as a think-tank and a facilitator for the education and training needs of in-service professionals in the transportation industry and as a means of encouraging, nurturing and developing future transportation professionals through outreach programs.

The new council is in the process of expanding its membership from 12 to as many as 30 representatives from government agencies, the private sector, as well as from other organizations with similar interests.

The current chair and vice-chair of the council are Carl Clayton of **Stantec Consulting Ltd.** and Elaine Lapointe of the **New Brunswick Department of Transportation**, respectively.

For more information about the council's activities, contact Sandra Majkic at the TAC secretariat.

Long-term Pavement Performance Data Collection Drawing to an End

Falling weight deflectometer testing will be conducted in the 2008 monitoring season at Canadian Long Term Pavement Performance (C-LTPP) test sites in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick and Newfoundland and Labrador.

EBA Engineering Consultants Ltd. has been contracted to conduct the work in the western provinces while **Stantec Consulting Ltd.** has been awarded the contract for the eastern provinces. In both cases, the work is to be completed in June.

It is expected this will be the final round of falling weight deflectometer testing at the sites as monitoring and data collection for the program is scheduled to conclude by March 2009. A public release of the database and selected data analysis projects will follow.

The C-LTPP experiment was initiated in 1989 as part of the government-sponsored Canadian Strategic Highway Research Program (C-SHRP). The objective of the planned 15-year experiment was to increase pavement life through the development of cost-effective pavement rehabilitation procedures based on systematic observation of in-service performance.

C-LTPP focuses on asphalt concrete overlays constructed over existing asphalt concrete pavements on granular bases.

All 10 provincial highway agencies have participated directly in C-LTPP through the contribution and monitoring of in-service test sites. As part of the C-LTPP experiment, a total of 65 test sections were constructed at 24 sites across Canada.

Information on the original pavement structures was collected prior to rehabilitation in 1989 or 1990. In accordance with the original plan, the performance of each section has been monitored annually by the highway agencies and data retained in the C-LTPP database.

In 2004, with less than 25 per cent of the C-LTPP sections having reached the end of their service life, the program was extended for an additional five years. The extension reflected the significant value of collecting data on end-of-service performance characteristics and the benefits to be derived from subsequent analyses of this data.

Nearly 50 per cent of the C-LTPP sections have now reached the end of their service life.

Recommendations of the C-LTPP steering committee to conclude the monitoring effort in 2009 and focus on key analysis projects have been accepted by the Engineering and Research Support Committee, which oversees the program on behalf of the Council of Deputy Ministers Responsible for Transportation and Highway Safety.

Report on Long-term Municipal Transportation Planning Studies to Be Issued

TAC has just completed a report on best practices for the technical delivery of long-term transportation planning studies in Canada.

The research project focused on analytical tools and associated data that support the long-range transportation planning practices of small and medium-sized communities in Canada.

The upcoming report has three main applications. It will serve as a reference work on available transportation planning methods, tools and data, a benchmarking tool for current planning practices across Canada, as well as a summary of needs that organizations can address in this area.

The publication will also contain a stand-alone user guide for application of best practices designed to assist transportation planners in making choices and responding to the transportation planning needs of their communities over the long term.

The report is intended as a guide for municipalities with a population of 10,000 to 250,000 residents, although the results are equally applicable to larger communities as much of the research reflects best practices applied in more populated centres. It should also be noted that the research considered two types of small and medium-sized communities, that is self-standing communities and those that are part of a larger urban region. This is important because the needs of the two types may differ.

The research drew from best practices literature in Canada, the United States and overseas, as well as from an Internet survey of provincial, territorial and municipal governments and some transit authorities. Among its findings, the survey indicated that the availability of good, recent data for long-term transportation planning is a significant concern for many organizations.

Based on the survey results, sources from which a community can draw in the absence of its own data or from which it can "transfer" data relationships developed by others are limited by the general lack of large-scale transportation planning databases at the provincial, territorial and national levels.

Initiated by the Transportation Planning and Research Standing Committee of the Urban Transportation Council, the project was conducted by **iTRANS Consulting Inc.** under the guidance of a steering committee.

Anyone interested in *Best Practices for Technical Delivery of Long-term Transportation Planning Studies in Canada* will be able to download the report free of charge from TAC's website this summer. An announcement will appear on the site as soon as the work is available.

Maintenance and Construction Subcommittee Changes Underway

TAC's Maintenance and Construction Standing Committee is forming a new construction subcommittee and also consolidating two of its subcommittees to create a maintenance subcommittee.

At last fall's TAC annual conference, the standing committee reviewed its organizational structure mainly to increase the profile of construction-related issues and to achieve a balance between maintenance and construction interests. The committee agreed that, as more emphasis had been placed on winter maintenance issues in the past few years, there had been a loss of construction-based membership and that the mandates of its subcommittees had been diminished.

Following the approval of TAC's Chief Engineers' Council, the Maintenance and Construction Standing Committee (MCSC) is creating a Construction Subcommittee and will ensure that at least two construction items appear on the agenda of future standing committee meetings. In conjunction with these changes, the MCSC agreed to retain its Public Utilities Management Subcommittee and to review the group's status in four to five years.

As well, the MCSC is merging the Road Salt Management Subcommittee with the Intelligent Transportation Systems (ITS)/Winter Maintenance Subcommittee. The new subcommittee is tentatively named the Summer and Winter Maintenance Subcommittee.

All of the MCSC's members endorsed the changes to the organizational structure, mandates have been created for the new subcommittees, chairs have been chosen and members are being selected.

The Construction Subcommittee and the Summer and Winter Maintenance Subcommittee will each facilitate discussion on best practices for administering contracts, contracting and outsourcing alternatives, alternative dispute resolution, as well as safety and traffic accommodation. They will also coordinate the development of best procedural practices for member agencies and operate a forum for the exchange of information on procedures. In addition, the subcommittees will liaise with other standing committees in order to advocate environmental sensitivity, promote quality and mitigate the traffic impacts of road work.

NEW MEMBERS

TAC is pleased to welcome the following new members:

Canadian Bureau of Investigations & Adjustments
Montreal, QC
Luigi Coretti

City of Cranbrook
Cranbrook, BC
L. James Hodge

Metrolinx (Greater Toronto Transportation Authority)
Toronto, ON
Leslie Woo, General Manager

Ontario Northland Transportation Commission
Cochrane, ON
Mark Blanchette, S&C Superintendent

SDMM (Servant, Dunbrack, McKenzie & MacDonald Limited)
Halifax, NS
Ray Landry

Traffic Safety Education & Consulting of Manitoba
Brandon, MB
Drew Gunson

Transurban
Vancouver, BC
David Taylor, Development Manager

Town of Woodstock
Woodstock, NB
Barbara Wishart

Leanne Binetruy

David Pritchard

COMING EVENTS ~ 2008

Annual Conference of the Canadian Society for Civil Engineering
June 10-13
Quebec City, Quebec
www.csce2008.ca

6th International Conference on Cracking in Pavements
June 16-18
Chicago, Illinois
Tel. (202) 493-3154
www.ict.uiuc.edu/

4th Surface Transportation Weather and 7th Snow & Ice Conferences
June 16-19
Indianapolis, Indiana
www.trb.org/calendar

7th International Conference on Managing Pavement Assets
June 24-28
Calgary, Alberta
www.ICMPA2008.com

Annual Conference of the Canadian Institute of Planners
July 13-16
Winnipeg, Manitoba
Tel. (800) 207-2138

4th International Conference on Bridge Maintenance, Safety and Management
July 13-17
Seoul, Korea
Tel. (202) 493-3023
www.iabmas08.org

45th Annual Petersen Asphalt Research Conference
July 14-16
Laramie, Wyoming
Tel. (307) 721-2306
www.petersenasphaltconference.org

2008 Pavement Performance Prediction Symposium
July 16-18
Laramie, Wyoming
Tel. (307) 721-2306
www.petersenasphaltconference.org

2008 International Orthotropic Bridge Conference
August 25-29
Sacramento, California
Tel. (202) 366-4599
www.orthotropic-bridge.org

International Construction Management Conference
September 8-11
Orlando, Florida
Tel. (202) 366-1562
gerald.yakowenko@fhwa.dot.gov

TAC Annual Conference & Exhibition
September 21-24
Toronto, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

Symposium on Pavement Surface Characteristics for Roads and Airfields – SURF 2008
October 21-23
Portoroz, Slovenia
Tel. (418) 644-0890, ext. 4056
www.surf2008.si

Planning Begins for Association's 100th Birthday

A program of activities to commemorate TAC's centennial in 2014 will be recommended by a task force of the Board of Directors.

The program will be in large part based on responses to a centennial celebration survey of Board members and questions included in an overall survey of TAC members and customers (see other story). The results of both surveys will be reviewed by the task force this summer and a report prepared for consideration by the Board at its September meeting.

The report is expected to outline various events and other activities that could be undertaken to mark the centennial of the association and possibly also one hundred years of transportation developments. Aside from TAC initiatives, other transportation organizations may wish to join in with projects of their own.

In May 1914, the first Canadian International Good Roads Congress was held in Montreal. This led to the foundation of the Canadian Good Roads Association, which was renamed the Roads and Transportation Association of Canada in 1970 and then evolved into TAC in 1990.