



Insider

ISSUE XIV, Winter 2010



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CEMA RECEIVES ENVIRONMENTAL AWARD



AR 42101

October 25, 2010

Mr. Glen Semenchuk, Executive Director
Cumulative Environmental Management Association (CEMA)
glen@cevia.ca

Dear Mr. Semenchuk,

Congratulations on receiving the Fort McMurray Chamber of Commerce's Environmental Leadership Award at the awards gala on October 19, 2010.

The awards recognize business and community members who make the region a great place to live, work and play. The Cumulative Environmental Management Association has a long standing relationship with the region and contributes by leading and supporting a multi-stakeholder approach to respectful, inclusive and leading environmental management dialogue. This approach has resulted in a variety of recommendations to enhance management of the cumulative environmental effects of development on air, land, water and biodiversity in the Fort McMurray region.

Alberta Environment is a proud member of the Cumulative Environmental Management Association, and we value the recommendations put forward by your organization. I commend your work to develop management frameworks, best practices and implementation strategies that align with the priorities of the Government of Alberta. Your organization is an excellent example of the achievements that come from industry, communities and governments working together for the benefit of the region.

Again, congratulations on your award and best wishes for continued success.

Sincerely,

Rob Renner
Minister

Alberta

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On the 19th of October the Fort McMurray Chamber of Commerce held its Business and Community Recognition Awards ceremony. CEMA was awarded the Environmental Leadership Award by sponsor Kee Yas Kee / Waste Management. The special honor was presented to Glen Semenchuk, CEMA Executive Director by David Craig, District Manager, Fort McMurray, Waste Management of

Canada Corporation. It was a wonderful evening for all of those in attendance. As a follow up vote of thanks, Glen Semenchuk, received a letter from Rob Renner, Minister of the Environment (insert) congratulating CEMA on receiving this very special award. (Picture Glen Semenchuk and David Craig)

President's Message

Dear Members,

What an exciting year it has been for CEMA! 2010 will be remembered as a milestone year for the association, not just because of our 10 year anniversary activities, but for our new mission, structure and caucuses. To sit back and think that one short year ago we only had a draft written concept about the new CEMA and that today we have implemented all of the improvements, bylaws and created a refreshed and reinvigorated CEMA.

Throughout the year CEMA continued to develop top notch recommendations for provincial regulators. In February the Phase II Water Management Framework Recommendations were completed. This report is something that all CEMA Members can be proud of. We held important workshops on biodiversity, reclamation and Traditional Knowledge uniting people from around the world and local Elders from this region. We also welcomed new members from the research field and welcomed back an old friend from the environmental network.

Next year the Government of Alberta will be moving forward on a land use plan for Northeastern Alberta. The policy decision will have a major effect on associations like CEMA that are at ground zero for the cumulative effects from industry development in the province.



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The exact details are still unknown but it's important to note that all of the leadership in the government knows the tremendously important role that CEMA played in the development of the recommendations not only with data, graphs and charts but also with the direct involvement of three CEMA members sitting on the regional advisory council. CEMA will continue to play an important role in the next steps of implementing the next phase of land use in the RMWB.

The new CEMA Board has been holding regular meetings this fall to continue the ongoing implementation of the new CEMA policies and guidelines. Our new Board is a mixture of some of the old pros that have been long time members and new members. We have developed a strong working relationship and are excited about our future challenges.

As we sit back enjoying holiday cheers with our family and friends we can look back at a successful 2010 and have great hopes for a wonderful and prosperous 2011.

Happy Holidays,

Rick

CEMA NEWS

MP's Visit

In October the honorable Denis Coderre M.P., official critic for Natural Resources and Gerard Kennedy M.P., official critic for Environment, visited the Fort McMurray region. While here the two politicians had a chance to see the oil sands operation from the air and on the ground. They also met with CEMA's Executive Director Glen Semenchuk to get a full briefing on CEMA and our activities as related to the federal government.



From left to right: Kyle Harrietha, Gerard Kennedy, Denis Coderre, Brett Thalmann with Suncor upgrader in the background.



Welcome Back

CEMA would like to welcome back Margaret Luker, Program Administrator for SEWG. After a year's maternity leave Maggie has returned back to office. She was greatly missed!

CEMA MEETING DATES 2011

Annual General Meeting Date:
Sawridge Inn, Fort McMurray
March 30th

Board Members Meetings:
February 2nd
March 16th
June 8th
September 21st
December 1st

Program Administrators/Co-Chair/Board Members Meetings:
February 1st
June 7th
September 20th

Meeting the Feds

On November 8th, Glen Semenchuk delivered a presentation about CEMA to the Oil Sands Scientific Advisory Panel. The purpose of the Advisory Panel is to provide recommendations to the Minister of the Environment on the scientific research and monitoring of the environmental effects associated with the development of the oil sands. The report is due later this month.

UPDATES ON WORKING GROUPS AND SUB-GROUPS

SURFACE WATER WORKING GROUP (SWWG)

Monitoring Technical Task Group (MTTG)

The MTTG and Todd Hatfield from Solander Ecological Research Ltd. are nearing completion of the Athabasca River Adaptive Management Recommendations and terms of references (ToRs) for a monitoring program. The monitoring recommendation encompasses a variety of items and they are broken down into status and trend monitoring (long term) and knowledge gaps (short term). Examples include Fish Population Status and Trends, Beaver and Muskrat Habitat in the Delta, Access to Tributaries, Hydro-Climatic Trend Analyses and Modeling, Riparian Areas in the Delta, and Winter Ecology in the Delta. Thirteen ToRs have been drafted by Todd and reviewed by the MTTG. It was decided by the MTTG that they will rank the ToRs in order of priority to help SWWG with their decision. The final report and the rankings will be submitted to SWWG for approval by the end of Q4 and will include some suggestions on implementation and governance as well as budgets for individual items.

In mid October CEMA held three surface water workshops in the communities of Fort McMurray, Anzac and Fort McKay to share information regarding MTTG's monitoring recommendation and Phases 1 and 2 and seek input from the Aboriginal and Métis knowledge holders in the region. A video, developed by CEMA in September, describing the Phase I and II Water Management Frameworks was presented at the beginning of each workshop; the video can be viewed at <http://cemaonline.ca/tools/cema-videos.html>. At the workshops the participants had the opportunity to provide feedback on specific topics as well as providing input on the monitoring recommendation. The input and feedback provided by the participants was compiled into a summary. Currently, the MTTG is incorporating the relevant information into the monitoring recommendation and terms of reference (ToR) for individual topics. Those items not covered by SWWG/MTTG will be compiled into a list of monitoring topics for other groups within CEMA.

For 2011, the MTTG has recommended a number of items that fall under the knowledge gaps theme. This would comprise the work of the MTTG for 2011. As well as management and oversight of the monitoring program and a proposed workshop on aligning regional monitoring. There is a recommendation to have a Monitoring Advisory Group to oversee and evaluate the programs. One possibility is that this sits at CEMA under SWWG but the MTTG have suggested alternative governance and delivery models. Some implementation options include monitoring delivery through RAMP, PADEMP or the Athabasca WPAC.

SUSTAINABLE ECOSYSTEMS WORKING GROUP (SEWG)

Throughout the spring and summer of 2010, members of the Sustainable Ecosystems Working Group (SEWG) and the Management Committee have worked hard to develop an access management work plan for SEWG. A large driver for this work stemmed from the Government of Alberta (GoA) request for CEMA to follow up on this initiative with the development of a recommendation for coordinated linear footprint management plan in a selected study area within the RMWB. Access management or more specifically, the coordinated planning and management of linear footprint is widely considered to be a key component of ecosystem management. SEWG has adopted the term "linear footprint management", as opposed to "access management", as referring to a three-fold process that includes:

- 1) the coordinated planning of industry roads and other linear features (e.g., pipelines, seismic programs);
- 2) the effective and timely reclamation or restoration of linear features; and,
- 3) ensuring continued access to key resources or key areas by both Aboriginal people and recreationists (including hunters, anglers, birdwatchers, campers, hikers, off-highway vehicle riders, etc.)

At the October CEMA Board meeting a detailed work plan was finally approved for SEWG that is comprised of the following five components: 1) Review, summarize, and assess linear footprint management tools, approaches, and strategies relevant to the RMWB in order to develop a shared understanding among participants in the planning process.

- 2) Select a project area within the RMWB for development of a linear footprint management plan that could serve as a model elsewhere within the region.
- 3) Complete a detailed linear feature characterization of the selected project area.
- 4) Engage stakeholders and interested/affected parties in the assessment, planning, and application to the project area of footprint management tools, approaches, and strategies.
- 5) Prepare a linear footprint planning and management recommendations.

Work is now underway, in partnership with Alberta Sustainable Resource Development (ASRD), on the first two components of this work plan. We anticipate completion in Q1 of 2011 partly in thanks to GoA for their large in-kind contributions of resources and data. It is anticipated that this work will integrate strongly with the work ASRD is conducting through the Land Management branch under the emerging Access Management Planning Manual for Resource Development (Watertight Solutions Ltd. in prep.) document under the Development of a Practitioners Guide for Integrated Land Management Tools (O2 Planning + Design Inc. in prep.) project.

It has been a long wait but this work plan was worth it and we look forward to seeing what SEWG will achieve with respect to this very important work. Thanks to everyone who put in a lot of time and effort to see this work plan completed. Good luck SEWG, we know you can do it!!!

UPDATES ON WORKING GROUPS AND SUB-GROUPS

RECLAMATION WORKING GROUP (RWG)

Co-Chairs: Stephen Tuttle (CNRL) & Tanya Richens (AENV)
Program Administrator: Kyle Harrietha
Technical Program Managers: Theo Charette (Aquatic) & Gillian Donald (Terrestrial)

Shell's Fred Kuzmic steps down as Co-Chair of the RWG

At the November 23rd meeting of the Reclamation Working Group Fred Kuzmic from Shell Albian Sands stepped down after two years as Co-Chair of the Reclamation Working Group. As the representative for Shell Albian Sands on the RWG Fred Kuzmic has made a tremendous contribution to the ongoing work of CEMA in all aspects of the RWG's work plan. Fred will remain as the Shell Albian Sands rep at CEMA and continue to serve on the Industry Caucus.

A BIG THANK YOU to Fred Kuzmic for his volunteer contribution on the RWG over the past many years



Former RWG Co-Chair Fred Kuzmic with RWG Co-Chair Tanya Richens

At the same meeting CNRL's Stephen Tuttle (picture right) was elected as NEW Co-Chair of the RWG. .

Other News:

The RWG has completed its 2009 Annual Report which will be distributed to the CEMA Board and posted on the public section of the CEMA website. The RWG completed briefing notes for the Biodiversity Traditional Knowledge Study recommendations and these will forward to the board for review along with the TK Biodiversity Report



The RWG has also expanded its ranks with the participation of Chris Powter, the Executive Director of one of CEMA's newest members, the Oil Sands Research and Information Network (OSRIN). The RWG is currently working closely with OSRIN on a scope of work for the update of the Reclamation Research Database.

In recent months the RWG has also approved the following technical reports:

- CH2MHill, Synthesis of Reviewer Comments on the CEMA Guideline for Wetland Establishment on Reclaimed Oil Sands Leases
- Toor, N. et al. The Role & Effectiveness of Wetlands for Mitigation of Oil Sands Impacted Waters
- Timberline & Alpha Wildlife, Early Successional Wildlife Monitoring Program Design
- FORRx "Evaluating existing prescriptions for creating target ecosites using the ecosystem simulation model, Forecast: Implications for ecosystem productivity & community composition in reclaimed overburden"

With respect to the C&I Framework follow-up reported previously the RWG will kick start the development of specific objectives, criteria, and indicators to populate the Framework with a workshop on Dec 13th & 14th, 2010. At the Workshop, information on how other jurisdictions use criteria and indicators to assess reclamation success will be presented. Also, key concepts will be discussed related to the use of criteria and indicators. Finally, the RWG will make decisions on what process and decision criteria they will adopt to select objectives, criteria, and indicators, which will be the focus of the next phase of work in the New Year.

UPDATES ON WORKING GROUPS AND SUB-GROUPS

RECLAMATION WORKING GROUP (RWG)

RWG – BIODIVERSITY TASK GROUP (BTG)

Chair: Grant Klappstein (ASRD)

The Biodiversity Traditional Knowledge Regional Workshop was held November 16th & 17th, 2010 in Fort McMurray. Two delegates were invited from each aboriginal community in the oil sands region. Participants attending at least part of the workshop included a total of 32 delegates representing 8 organizations, 5 of which were Métis Locals. A number of delegates from Métis Nation Region 1 and the Friendship Centre were invited to ensure full participation. At least 4 elected aboriginal leaders were present as delegates. Two Traditional Knowledge specialists attended. Eight members of CEMA were present

Preliminary analysis shows a strong correlation between key messages from the regional workshop and results of the Biodiversity TK Study, with themes including: Building Our Aboriginal Road; Spirituality; Our History, Our Homeland; Youth and Elders Coming Together; Addressing Impacts; Communication; More Work Needed; Building Our Future; and Next Steps. There was consensus that the Two Roads approach should be developed within CEMA. Implications are for example that within CEMA, the Two Roads approach would provide an opportunity for enhanced aboriginal involvement in key areas such as the access management planning project initiated by the Sustainable Ecosystems Working Group or for defining aboriginal values to develop traditional knowledge goals, objectives, criteria and indicators (C&I) for evaluating reclamation success as part of the RWG C&I framework. Pending completion of the workshop transcript, the draft report will be delivered to the BTG and workshop participants for review.

RWG – CLOSURE COORDINATION TASK GROUP (CCTG)

Co-Chairs: Audrey Lanoue (Syncrude) & Brett Purdy (AENV)

On November 22nd, the CCTG held a 1-day workshop to create a map of the current closure process. Once finalized, this map will provide clarity and common understanding for practitioners and stakeholders and will serve as a good starting point for future discussions. Next steps include:

- Refinement of the map
- Holding a workshop to discuss the definition of an “integrated boundary”, which will clarify what is meant by successful closure coordination
- Defining gaps in the current closure system map in relation to being able to achieve an “integrated boundary”, as defined in the previous step, and
- Producing a revised closure system map and accompanying recommendations and implementation plan, which will advance the integration of closure plans.

A big thank-you to Dale McNeil (Continuous Improvement Specialist, Esso, Calgary) for facilitating the workshop.

RWG – RECLAMATION CLASSIFICATION SYSTEM TASK GROUP (RCSTG)

Co-Chairs: Rob Vassov (Syncrude) & Justin Straker (Fort McKay IRC)

Some members of RCSTG attended the Canadian Oil Sands Network for Research and Development Environmental and Reclamation Research Group Knowledge Transfer Workshop for the Hydrology Ecology and Disturbance of Boreal Wetlands (HEAD/DU) Phase 2 Research Program. The knowledge transfer workshop provided background information for developing the reclamation classification system based on the framework for defining hydrologic response units developed as part of HEAD2 projects.

The RCSTG invited Carl Mendoza and Kevin Devito to present the hydrologic response unit framework to at a meeting in October. RCSTG is developing a scope of work to obtain technical assistance for developing a workplan to conduct case studies on reclamation areas to test the HRU concept and begin building a conceptual model for the RCS.

UPDATES ON WORKING GROUPS AND SUB-GROUPS

RECLAMATION WORKING GROUP (RWG)

RWG – RIPARIAN GUIDE TASK GROUP (RGTG)

A Riparian Guide Task Group has been established by the RWG to administer the process for the review of the Riparian Classification and Reclamation Guide developed by Suncor Energy and Shell Albian Sands. This guide addresses a long standing gap and the RWG has contracted the Forestry Corp to undertake a technical review of the Guide using the same process used in assessing the 'Revegetation Manual.' The technical review is still ongoing and once complete the RGTG will review the findings of the technical review and recommend potential options for moving this document forward within CEMA.

RWG – WILDLIFE TASK GROUP (WTG)

Co-Chairs: Lorne Gould (Fort McKay IRC) & Jamie Sullivan (Syncrude)

The WTG early successional wildlife monitoring program pilot project on reclaimed lands completed the fall small mammal trapping surveys in October. The mammals observed at the monitoring locations were: Coyote (*Canis latrans*), Meadow Vole (*Microtus pennsylvanicus*),

Short-tailed Weasel (*Mustela erminea*), Least Weasel (*Mustela nivalis*), Southern Red-backed Vole (*Myodes gapperi*), Deer Mouse (*Peromyscus maniculatus*), Arctic Shrew (*Sorex arcticus*), Shrew species (*Sorex sp.*) and Red Squirrel (*Tamiasciurus hudsonicus*). The winter tracking surveys will be conducted December through March depending on the snow and weather conditions.

The WTG initiated a new project to compile a synthesis of the habitat models used in the oil sands region. The objectives of the project are:

1. To review and summarize habitat models used in oil sands region EIA submissions and regional wildlife habitat mapping.
2. To review and summarize how habitat model data and habitat models are used to develop oil sands closure plans.
3. To summarize the validation method and status of existing validated models.
4. To recommend a list of models to be validated, provide recommendations for selecting candidate models and describe potential validation procedures of non-validated models.

This project is expected to be completed by May 2011.

TERRESTRIAL SUB GROUP (TSG)

Co-Chairs: Rob Vassov (Syncrude) & Lelaynia Cox (Suncor Energy)

Shell's Clayton Dubyk Steps Down as Co-Chair of the TSG

At the November 28th meeting of the Terrestrial Sub-Group Clayton Dubyk stepped down after two years as Co-Chair of the Terrestrial Sub-Group. As the representative for Shell Albian Sands on the TSG Clayton Dubyk has made a tremendous contribution to the ongoing work of CEMA. Clayton will remain as the Shell Albian Sands on the TSG and will be assuming Fred Kuzmic's role on the RWG. A big thank-you to Clayton Dubyk for his volunteer service as the TSG Co-Chair over the past two years.

Suncor's Lelaynia Cox Elected as NEW Co-Chair of the TSG

At the November 30th meeting of the TSG the Suncor's Lelaynia Cox was nominated and subsequently elected as the new Co-Chair of the Terrestrial Sub-Group.

Lelaynia has a Bachelor's degree in forest resource management from UBC and is a Registered Professional Forester in both Alberta and BC. Prior to working with Suncor Energy Lelaynia was in silviculture forestry (developing planting prescriptions, supervising tree planting, doing tons of regen surveys.) Lelaynia started working for Suncor in July 2006 and is currently working with Suncor's Reclamation group, where her primary responsibility is managing the revegetation program.



Lelaynia Cox at Work!

UPDATES ON WORKING GROUPS AND SUB-GROUPS

TERRESTRIAL SUB-GROUP (TSG)

TSG – BEST MANAGEMENT PRACTICES TASK GROUP (BMPTG)

Chair: Isaac Amponsah (ASRD)

The BMPTG reviewed the Best Management Practices document in October and identified two contentious issues. A briefing note will be presented to TSG to vote on the two issues and following that vote the document will be finalized and distributed to RWG and TSG for final review before being presented to the CEMA Board.

TSG – FOREST PRODUCTIVITY TASK GROUP (FPTG)

Chair: Rob Vassov (Syncrude)

The FPTG initiated a contract to finalize the ecosite area summary table with mean and minimum site index values per species per ecosite; this table will be recommended to the government to be inserted into each operators approval to replace the current Timber Productivity Rating tables and will provide a basis for projecting hectares of inoperable and operable land in the Forest Resource Plans.

A second project was initiated to develop a questionnaire to distribute to experts in growth and yield modeling to obtain input into the requirements for developing a growth and yield model for the oil sands region. The development of a growth and yield model for the oil sands region will support the calibration and validation of the projections reported in the ecosite area summary table.

The draft RFP has been distributed to FPTG for review. The proposed project is to collect historical data from operators regarding early stand mortality rates on reclaimed areas and to design a survey protocol to collect early stand mortality data on reclaimed areas. The data from this survey will be used to validate the 10% mortality rate assumption applied in the Guidelines for Reclamation to Forest Vegetation in the Athabasca Oil Sands (2nd Edition). The RFP will be issued in December 2010.

TSG – PLOT NETWORK TASK GROUP (PNTG)

Chair: Rob Vassov (Syncrude)

The PNTG is scoping a project to conduct a data analysis and review of the monitoring data to summarize what has been learned from the first 10 years of monitoring; the analysis and review will assess the data against the new objectives and provide recommendations for modifications to assist the PNTG in refining the protocols to support the new objectives. The field program for the 2009 annual monitoring of soils, understory vegetation and overstory vegetation was conducted in August and September; the consultants will spend the winter documenting and summarizing the activities in the annual field monitoring reports.

An online data query system was completed and the testing period has commenced. The system provides online searching capabilities for the TSG's long-term plot network's database. The complementary project to verify and update any missing information in the database has completed the exploratory and relationship analysis to identify where information needs to be updated. The data query system will be accessible through the CEMA DMS library once the testing period and the housekeeping project is complete.

TSG – ALTERNATIVE REGENERATION STANDARDS TASK GROUP (ARTG)

Chair: Grant Klappstein (ASRD)

The field surveys for the pilot project to test the regeneration survey methods described in the Alberta Regeneration Standards for the Mineable Oil Sands: First Approximation - Pilot Project Data Collection Field Protocols, and Alberta Regeneration Standards For The Mineable Oil Sands: First Approximation - Pilot Project Data Collection Rationale And Soft Spot Documentation .were completed in September. The ARTG met in November to identify and confirm any changes required to the survey protocols based on the field testing of the first approximation protocols. In January, the ARTG will meet to review the results and assess sample size requirements and discuss potential targets for stocking, density and site index.

The ARTG will be working toward delivering a recommendation on regeneration standards for oil sands mining operations in 2011.

UPDATES ON WORKING GROUPS AND SUB-GROUPS

AQUATICS SUB-GROUP (ASG)

Co-Chairs: Roderick Hazewinkel (AENV) & Rachel Noble-Pattinson (Imperial)

Imperial Oil's Rachel Noble-Pattinson Elected as new Co-Chair of ASG

As reported in the previous edition of the Insider Suncor's Christine Daly stepped down as the ASG Co-Chair. At the September 15th meeting of the ASG Imperial Oil's Rachel Noble-Pattinson was nominated as subsequently elected as the new Co-Chair of the ASG.

Other News

The ASG would also like to congratulate Haneef Mian who has represented the ERCB at the ASG. Haneef Mian was recently selected as NAIT's new Applied Research Chair, Oilsands Environmental Sustainability at the School of Sustainable Building and Environmental Management.

As reported in the previous issue of the Insider, on September 15th, the ASG kicked off its project that will generate a regional approach for monitoring wetlands in the oil sands region. On November 9th and 10th the ASG held a workshop to develop objectives upon which the monitoring program will be developed, as is a common and vital first-step with any monitoring program. The next step in the project is to bring in additional experts from around North America to work on determining what are the important ecosystem components in oil sands region wetlands. The contractors for this project include some of the world's experts in aquatic monitoring programs, such as Jan Ciborowski (University of Windsor) and Suzanne Bayley and Lee Foote (University of Alberta).

Alberta Innovates has recently produced the first draft of a report that aims to kick-off work that will provide guidance on aquatic wildlife habitat reclamation. This report focused on determining that state of existing empirical data and scientific knowledge, in order to understand what information currently exists to support the development of guidelines. Alberta Innovates created a second draft of the report, based on comments from ASG and WTG members. The second phase of this project will be carried out by the Wildlife Task Group.

ASG – END PIT LAKE MODELLING TASK GROUP (EPLMTG)

Chair: Andrews Takyi (Total)

As reported in the previous issue of the Insider, Golder Associates is continuing with work on Oil Sand End Pit Lake Physical/Biogeochemical Model Development. The EPLMTG is excited to report that a draft of this model is now complete. The EPLGTG has reviewed the model and Golder is currently revising the model prior to its send-off to four independent experts.

ASG – END PIT LAKE GUIDE TASK GROUP (EPLGTG)

Chair: Roderick Hazewinkel (AENV)

The EPLGTG held a workshop on November 4th and 5th where potential authors and reviewers of the EPL Guide came together to present proposed chapter outlines and work together on producing a final EPL Guide outline as well as identifying roles and responsibilities. All in attendance would agree that the workshop was a huge success. The group has generated a revised EPL Guide table of contents and approach to produce the content. The new approach highlights a 2-stage process in which regional objectives and technical guidance on building an EPL ecosystem (ecological, hydrological, hydrogeological) are drafted, discussed and presented first. Second, the EPL designers will take this guidance and, with it, draft the "EPL Design" Chapter.

All participants are enthusiastic and excited about the project and authors and reviewers are keen to work together on the project. Participants included Clint McCullough (Edith Cowan University, Australia), Devin Castendyk (State University of New York), Jerry Vandenberg (Golder Associates, Calgary), Angela Küpper (AMEC, Edmonton), Richard Dawson (...), Aaron Sellick (...), David Austin (CH2MHill, Minneapolis/St. Paul, USA), and George Dixon (University of Waterloo, Waterloo, ON). Next steps in the short-term for authors to revised chapter outlines (based on the discussions from the workshop) and, once approved by the EPLGTG, begin drafting chapters.

Continues on next page...

UPDATES ON WORKING GROUPS AND SUB-GROUPS

AQUATICS SUB GROUP (ASG)

ASG – END PIT LAKE GUIDE TASK GROUP (EPLGTG)

As part of this project, the EPLGTG is committed to communicating with and involving stakeholders from the start. On November 2, the Managing Editor and RWG Technical Program Manager met with the CEMA Aboriginal Caucus and the Fort McKay IRC Reclamation Focus Group. Participation in the meetings was excellent in both number of participants and engagement. The purpose of these two meetings was to inform the groups about the EPLGTG's intention to produce the EPL Guide, share information on the plans for its production, and obtain perspectives from these groups on EPL concepts. These perspectives are in the process of being drafted and, once finalized, with the two groups, will be incorporated in the EPL Guide in the "EPL Objectives" chapter.

ASG – TECHNOLOGY TRANSFER TASK GROUP (TTTG)

Co-Chairs: Jon Hornung (Suncor) & Carla Wytrykush (Syncrude)

On November 16 and 17th, the TTTG held a workshop with tech transfer participants to begin the process of identifying reclaimed marsh indicators of success. The TTTG adopted a process that was successfully used by the Great Lakes Environmental Indicators Project (GLEI) to define indicators. In this process, technical experts produce maps of ecosystem drivers. These maps are then put together into one consensus map, which is agreed upon by participants. The consensus map is then used to identify key ecosystem components that should be considered as indicators of ecosystem success. The workshop was a huge success! A big THANK-YOU to Joshua Martin, from Suncor, who greatly assisted with the planning and facilitation of the workshop.

NITROGEN WORKING GROUP

Co-Chairs: David Spink (Fort McKay) & Sunny Cho (AEVN) & Charles Bower (Nexen)

NOxSO2 Management Working Group (NSMWG)

NSMWG has had a busy fall, with the finalization of several projects, a joint workshop between NSMWG and WBEA's Terrestrial Environmental Effects Monitoring (TEEM) committee, and preparation for the initiation of the multi-year nitrogen critical load project in early 2011.

Joint NSMWG-TEEM Workshop

NSMWG and TEEM members met in Calgary on October 27th and 28th to address several objectives:

1. Increase awareness amongst NSMWG and TEEM members of CEMA's regional management frameworks and management recommendations and TEEM's monitoring programs.
2. Identify and evaluate possible issues and gaps related to CEMA's frameworks and TEEM's monitoring programs.
3. Prioritize framework related issues and gaps and identify actions and responsibilities to address.
4. Formalize communication and feedback protocols between NSMWG and TEEM.

Over the course of two days the workshop participants received information on both NSMWG and TEEM programs and were asked to provide recommendations for better integration between the two organizations and to identify gaps and overlaps between the two programs. The CEMA and WBEA Executive Directors and the NSMWG & TEEM Co-Chairs and Program Administrators are scheduled to meet before year end to review the recommendations and determine the best path forward to ensure close communication and engagement between the two groups and their respective work plans.

Nitrogen Eutrophication Task Group

The Nitrogen Eutrophication Task Group is looking at the issue of the potential for eutrophication/fertilization effects associated with regional nitrogen emissions, principally industrial NOx emissions.



UPDATES ON WORKING GROUPS AND SUB-GROUPS

NITROGEN WORKING GROUP

A major recommendation from the CEMA 2008 Interim Nitrogen (Eutrophication) Management Recommendations and Work Plan was to develop regional critical loads for nitrogen. This year NSMWG worked to select study sites and develop a detailed research plan for a nitrogen critical load study. Field work occurred throughout the summer, and two suitable sites for the study have been identified. The task group is currently working to finalize the detailed work plan, with the project scheduled to begin in the beginning of 2011. The project will involve controlled nitrogen addition studies and an assessment of the environmental effects of these additions. This will allow determination of the level of nitrogen deposition that occur to sensitive regional ecosystems without adverse effects which would be the nitrogen critical load for those ecosystems.

Acid Task Group

The CEMA Acid Deposition Management Framework (ADMF) includes provision for a Stage 2 acid deposition modeling run to check the status of the region relative to the action level criteria in the ADMF. This work was started in 2008 and has included a review of CALMET/CALPUFF model input options and recommendations. In 2009 a contract was let by the NSMWG which included:

- Conducting sensitivity model runs to determine the significance of model selection and input options,
- Selection of model inputs/approaches to be used in the stage 2 modeling, and
- The actual model runs of regional acid deposition and impacts on regional soils and surface water relative to ADMF criteria and allowable aerial exceedence levels.

The results of the modeling indicate that the impacts of the current, and likely near future (next 5 year), emissions are well below the allowable effect levels outlined in the ADMF. The final report for this project has been completed and is available on the CEMA dataset library.

Stage 3 (the final) and full implementation of the CEMA ADMF has been ongoing since 2009 and involves application of a time-to-effect model for soil and surface water acidification that will be used to determine the status of the region in terms of the soils and surface water criteria in the framework. So far there has been a preliminary assessment of lakes and soil samples from the region which will be used to identify any data shortcoming issues and determine the final approaches for the Stage 3 assessment. A final report on this work will be available at the end of the year.

Emissions Inventory Task Group

NSMWG frameworks have a modeling component to predict potential impacts associated with planned and proposed future emissions. As the NSMWG has gained experience with the application its frameworks a need for standardized and co-ordinated approaches for preparing emission inventories and running models was identified. The Emission Inventory Task Group was formed in 2010 to address this need. The task group worked to develop a Terms of Reference for a 5 phase work plan. A contract was let for the first two phases of the work. The remaining three phases of the project will be completed in 2011.

Ozone Task Group

The Ozone Task Group focuses on the potential for regional NO_x and VOC (volatile organic compound) emissions to contribute to ground level ozone formation and impact health and or ecosystems.

In the fall the task group completed a contract to perform particulate matter (PM) and ozone chemistry modeling using the Community Multi-scale Air Quality (CMAQ) model. The CMAQ modeling estimated the relative contributions of local, intermediate, and long distance emission sources to ozone and PM air quality in the RMWB region. The results from the study indicated that current regional ozone levels are below both the CEMA health and recommended vegetation effect thresholds. The report for this study will be available on the CEMA dataset library by the end of the year.

Technical Framework Review

NSMWG commissioned an independent review of their frameworks and recommendations, and this report was recently completed. The report provides an assessment and recommendations related to past, existing, and possible future NSMWG work. The technical report is accompanied by a layperson's document summarizing NSMWG's work.

NSMWG is currently reviewing and finalizing the technical report and layperson's document, and expect they will be available on the CEMA dataset library by the end of the year.

**Merry Christmas
and
Happy New Year
from
CEMA**

