

Trace Metals and Air Contaminants Working Group (TMAC)

TMAC has completed its terms of reference, with the submission of the comprehensive Air Contaminants Management Framework. The final meeting to formalize the dissolution of the working group will be held on March 18, in Calgary. A formal letter will be forwarded to CEMA at that time requesting a membership vote on the dissolution of TMAC. The following is a brief summary outlining the latest activities the TMAC working group completed in the final year of its nine-year existence.

Initially TMAC was called the Heavy Metals Working Group. With the evolution of its terms of reference, the name was amended to Trace Metals and Air Contaminants Working Group to affirm responsibility for trace contaminants in the Region. The RSDS issues set the tone for an indepth evaluation and review of relevant scientific literature on trace metals and air contaminants, related regulatory guidelines and environmental benchmarks. The RSDS issues tasked TMAC with providing a framework for the eventual development of the Air Contaminants Management Framework which, if implemented effectively, will address effects of air contaminants on human health, wildlife and vegetation in the region.

Within this last 12 month period leading up to the submission of the ACMF, TMAC completed two major projects:

- a) A priority chemical screening tool (PCST), developed specifically for CEMA, provides stakeholders with a screening tool to rank chemicals released from surrounding facilities, their potential for existence in the environment and their effects on human health. The PCST has now been beta tested and confirms the following:
 - i. the PCST is user friendly and all functions are operating as designed
 - ii. the PCST best serves users who have a "working knowledge" of the three principal factors in the prioritization scheme.
 - iii. the PCST is based on chronic toxicity data only.
- b) Review and assessment of trace metals identified additional chemicals of concern exceeding the chemical, media and pathway specific critical loads, in the RMWB. Various sampling initiatives for future evaluation of human health and ecological impacts and exposure to trace metals have been recommended.

Both of these latest TMAC projects will support roll out of the ACMF. The Final Recommendations of Air Contaminant Emissions in the Regional Municipality of Wood Buffalo (ACMF) has broad capacity to address a broad range of RSDS issues including: traditional resource use, air pollutant interactions, heavy metals deposition, inhalable particulate matter, long range transport, odours, tailing ponds emissions, volatile organic compounds, and address single or mixtures of chemical moieties. The ACMF addresses the management of regional air contaminant emissions, with potential or ecosystem impacts, not currently managed under existing management frameworks. Through the initiation of a multistakeholder regional advisory panel (MRAP), the MRAP will be led and appointed by AENV. The MRAP will identify, prioritize and recommend those priority air contaminants, to the Alberta Ambient Air Quality Objectives Stakeholder Advisory Panel for action. This single, effective management framework will expedite the selection, prioritization and management of air contaminants in the Region.

Members of the TMAC Working Group have discussed potential paths forward with other CEMA working groups. TMAC is currently exploring development of an Air Themes Working Group, in part to help ensure the expertise and knowledge, specific to the TMAC will continue to benefit CEMA and the Region at large.

Sustainable Ecosystems Working Group (SEWG)

Since the delivery of the Terrestrial Ecosystem Management Framework (TEMF) recommendation in June 2008, SEWG has been working hard in 2009 to follow-up with some of the key recommendations or outstanding tasks outlined within the document. These have included:

- 1) Validating the in-situ footprint metrics used in the TEMF modelling and assumptions,
- 2) Running additional management scenario combinations through modeling to improve understanding of the forecasted indicator response to the concurrent application of management strategies applied individually during the development of the TEMF, and
- 3) Providing a dialogue document on further perspectives on the TEMF with respect to a) the management response trigger system, including revisiting the Natural Range of Variation (NRV) as it relates to modeling and the monitoring considerations, and b) access management strategies.

All of these pieces of work have been provided to the Regional Advisory Council (RAC) and will inform the Lower Athabasca Regional Plan (LARP). Government has indicated to CEMA, on several occasions, how useful and important this recommendation has been in their planning process and how critical this piece has been to furthering the work of the RAC committee. A big kudos to SEWG and CEMA! SEWG is currently working on developing a new Terms of Reference and workplan for 2010, and will continue to provide updates as this work is initiated. Stay tuned!



Insider

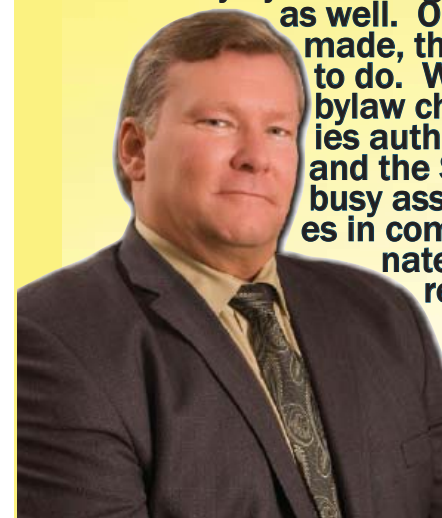
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President's Message

Dear Friends,

The Cumulative Environmental Management Association has reached a crossroad, and as such, we have the opportunity to select our path for the future. Members will make some important decisions at our March Annual General Meeting that will result in positive change in the structure and operations of CEMA. I know that all member representatives have completed their due diligence and are prepared to vote on these important recommendations. I would like to offer my personal thanks to my fellow members of the CEMA Joint Review Team for persevering through a challenging process; your results speak for themselves. I also wish to thank CEMA members for their interest and engagement throughout the process; your thoughtful suggestions are a clear indication that most, if not all, members have a deep passion for CEMA, the challenges we address, and the products we deliver.

Your Management Committee and Secretariat have been hard at work preparing for the upcoming AGM with a view to making your options as understandable as possible. As you will discover, the recommendations will be explained in a precise manner, the need for motions and votes will be very clear, and provided that you support the motions, the Executive Director with assistance from CEMA's legal staff have further prepared the necessary bylaw changes for your approval as well. Once the decisions are made, there will still be much to do. We have to send the bylaw changes to the Societies authority for ratification and the Secretariat will be very busy assisting the new caucus in coming together to nominate and elect their board representatives.



The Management Committee, with your approval, will continue to serve you until such time as the new board can meet

and elect its officers. We don't anticipate this process will be complete until our June General Meeting. In interim, CEMA Management Committee and Secretariat will continue to be available to answer all your questions.

Since we last met in December 2009, CEMA working groups have also been very busy. My compliments to the entire Phase II Framework Committee of the SWWG who delivered the recommendations for the Phase II Water Management Framework. This very intensive and long awaited work required the commitment of a very large team including folks external to CEMA and 4.6 Million dollars, however, the subsequent positive impact the Phase II Water Management Framework will have on the Lower Athabasca River will be worth all the blood, sweat and tears. I have to admit, I was extremely proud that a diverse team was able to come together for so long, addressing challenging issues and almost achieve full consensus on the results.

The RWG continues to deliver products and work towards solutions that will better recognize and demonstrate the oilsands reclamation efforts. SEWG is getting ready for a major push on land access management and our NSMWG and TMAC folks are working on the terms of reference that will lead to the creation of our first media based working group.

Although it seems like yesterday, it was 12 months ago that you accepted me as your new President. The learning curve was steep (and still is) and the challenges were many, but I would not change the last year for anything. CEMA members have been very forthcoming with suggestions and support for my role and our many activities. I wish to thank each of you for your friendship, support, advice and for your continued dedication to the CEMA mission.

Regards,

Rick

Thank You - Joint Review Committee

The Joint Review Committee (JRC) completed its report in February and forwarded the recommendations to the Management Committee. This action formally finished their operations. Countless meetings, conferences calls, document reviews and discussions over the past months proved to be a very heavy work load for all members of the Committee.

CEMA would like to say a very special thanks to Ruth, Randall, Bob, Simon, Glen, Rick, Amanda, Lucy, Jennifer, Judy, Lisa, and Brian



RAC IT UP

After 15 months the Regional Advisory Committee (RAC) on the Lower Athabasca River has completed its mandate. The very important process and forthcoming recommendations will be a key component of the future policy of land-use in North-eastern Alberta.

The CEMA team was very well represented on the RAC by Lanny Coulson, Peter Koning and Glen Semenchuk. Thanks for your great work and ability to showcase the important report and research produced by CEMA.

Metis Elder Jenny Flett Passes Away

On March 2, Jenny Flett died; the well known and loved Métis Elder was 101 years old. Jenny or Mum as she was called was born into the historic Fraser family of Fort Chipewyan in 1908. With the early passing of her own mother Jenny took upon the role of caretaker for her brothers and sisters. Also like her mother, Jenny became a midwife at age 18, self taught she delivered 487 babies over an impressive 48 year career and never lost one. She received 5 dollars per birth for 10 days of care from the government for performing such an important role in the community. Jenny raised and delivered 10 of her own children and all the while supporting the countless women of Wood Buffalo. Over the last years of her life Jenny was living in the Northern Lights Hospital. Her nephew Jumbo Fraser, delivered by Jenny, would go and visit his aunt when in Fort McMurray. Jumbo added, 'each trip is different now, when I drive down over the hill and see the hospital and not stopping in to see Mum. I really miss her.' Jenny was laid to rest in Fort Chipewyan on March 6th.



Updates

On Working Groups and Sub-Groups

Wetland Tech Transfer Workshop

Front row (from left to right): Marsha Trites (Technical Lead, Tech Transfer Task Group), Jon Hornung (Suncor, Co-Chair Tech Transfer Task Group), Dr. Lee Foote (U Alberta), Dr. Brett Purdy (Alberta Environment), Dr. Barry Warner (U Waterloo). Back rows (from left to right): Dr. Jan Ciborowski (U Windsor), Dr. Andrea Farwell (U Waterloo), Dr. George Dixon (U Waterloo), Gerry Haekel (Alberta Sustainable Resource Development, Tech Transfer Task Group), Geoff Halferdahl (Syncrude), Dr. John Headley (Environment Canada), Dr. Lee Barbour (U Saskatchewan), Dr. Cindy Paszkowski (U Alberta), Théo Charette (CEMA, Tech Transfer Task Group), Dr. Phil Fedorak (U Alberta), Dr. Dale Vitt (Southern Illinois U), and Carla Wytrykush (Syncrude, Co-Chair, Tech Transfer Task Group).
Not in photo: Dr. Suzanne Bayley (U Alberta), Dr. Kevin Devito (U Alberta).



TEK Advisory Committee

The Traditional Environmental Knowledge Advisory Committee is pleased to announce the MC approval of the Mentorship Roles & Responsibilities. The document outlines a mentorship program developed by the TEKAC out of a gap identified in regards to member's introduction and participation on CEMA committees. The purpose of the document is to help working groups offer new members mentoring support in order to facilitate communication and participant involvement in committee discussions. The information includes an outline for members on how to implement this role in their working groups.

Continued work on the Community Orientation Project is underway by Local 125 with a projected deliverable in Q4 2010. This project will provide an overview of Fort Chip with the intended purpose of providing a regional orientation program. This will be accomplished in part by familiarizing individuals from the RMWB with the history and culture of local Aboriginal communities.

The TEKAC is charged with interfacing with the CEMA working groups to help facilitate the collection and integration of TEK. The committee members have received updates from two working groups & look forward to the upcoming meetings for continued updates.

The TEKAC looks forward to the initial planning stages of the Annual Elder's workshop in collaboration with the Aboriginal Round Table. In response to suggestions by some of the member elders, this year's event will take place on the land.

SWWG & Sub Groups Updates

The Phase 2 Framework Committee (P2FC) has completed its structured decision making process and produced a report detailing their recommendations for the Phase 2 Water Management Framework for the lower Athabasca River. The P2FC was unable to reach consensus on some key issues, and the report, available at www.cemaonline.ca, details the different perspectives held by P2FC members for the non-consensus issues. The report has been provided to Alberta Environment, Alberta Sustainable Resource Development, the Energy Resource Conservation Board, and the Department of Fisheries and Oceans for their consideration. The report will also follow CEMA procedure for framework recommendations, and any further feedback from CEMA members will be provided to regulators upon the completion of that process.

The key non-consensus issues were related to the water withdrawal rules for the flow conditions occurring at and below the 1 in 100 year low flow event. They were unable to reach agreement on how and where an ecosystem base flow (EBF), a flow below which no water withdrawals would be permitted, could be established.

There is a large amount of scientific uncertainty regarding the concept of an EBF, and the legal and policy issues relating to its implementation were outside of the scope of the P2FC. Nevertheless, agreement was found on many of the challenging issues addressed by the committee, and large amounts of progress was made, particularly in developing an understanding of the relationships between potential management rule sets and their consequences for all interests expressed by P2FC members. All participants praised the Water Use Planning Process used in the P2FC for facilitating this understanding.

As the Phase 2 Water Management Framework recommendation task draws to a close, the SWWG is now focusing on developing a recommendation for a monitoring program to accompany the framework. A new task group, the Monitoring Technical Task Group (MTTG), has been formed to take on the project. The monitoring program recommendation will include both western science and TEK, and provide the terms of reference for a program to address issues identified in the Phase 2 structured decision making process as requiring further work. This recommendation is expected to be completed in the fall of 2010.

Updates On Working Groups and Sub-Groups

Aquatics Sub-Group (ASG)

The ASG held an important strategic planning workshop on March 2nd and 3rd to discuss its plans for the revision of the Guideline for the Establishment of Wetlands on Reclaimed Oil Sands Leases (Wetlands Manual) and the 'End Pit Lake Technical Guidance Document (for oil sands mining).' During this process the ASG also established a critical path for work going forward in 2010, reviewed and substantially amended its long term plan including its 2011 planned budget, and worked towards aligning all work with its major priorities of completing the Wetlands Manual and the EPL Technical Guidance Document.

The ASG is also currently in the process of selecting a winning bid for the RFP issued for a process assessment of wetland criteria and indicator frameworks. This work is seen as an extension of the C&I Framework, and will provide the background information necessary to inform the development of specific criteria and indicators for wetland reclamation of the oil sands. The following step will be the development of specific criteria and indicators that will be used to assess wetland reclamation success in the oil sands. We envision that this work will be done through consultation with wetland experts, regulators and the ASG. These wetland criteria and indicators will guide and inform government, stakeholders and industry on expectations for wetland reclamation outcomes.

The goal of this project is to examine wetland reclamation / restoration criteria and indicator frameworks that are currently operating in different jurisdictions as case studies to inform the development of a wetland reclamation criteria and indicator system in the oil sands. The ASG recognizes that development of wetland criteria and indicators has wide-ranging implications for government, industry, and stakeholders. Thus, a solid base of information is required to inform the development of the wetlands framework. The focus of this project is on the design, development and use of frameworks, rather than an examination and evaluation of indicators used. This will inform our first steps in developing a framework. The intention of this project is to focus on wetlands but the information generated from this project should also be relevant to other aquatic systems.

ASG: End Pit Lake Guide Task Group (EPLGTG)

Following the review of the previous End Pit Lakes Technical Guidance Document undertaken by CH2MHill and the ASG Strategic Planning Workshop to establish the workplan based on the recommendations outlined in this review, the EPLGTG is in the process of selecting a Managing Editor in a competitive bidding process for the development of the End Pit Lakes Technical Guidance Document. The role of the Managing Editor will be to coordinate the production of the document as described in the proposed roles and responsibilities and work with the EPGTG in its development. Once completed the EPLGTG should be able to relatively quickly begin the process of developing the Guide.

ASG: End Pit Lakes Modelling Task Group (EPLMTG)

As reported in the previous issue of the Insider, Golder Associates is continuing with its work on Oil Sand End Pit Lake Physical/Bio-geochemical Model Development. As well, the EPLMTG is planning to initiate a grant with Dr. Christopher Weisener at the Great Lakes Institute for Environmental Research at the University of Windsor to shed a light on the chemical interactions between mature fine tailings and the cap of water overlying it. This is an important component in understanding how pit lakes that contain mature fine tailings will develop initially and over time.

ASG: Technology Transfer Task Group (TTTG)

Phase 1 of Oil Sands Marsh Technology Transfer Culminates with January Workshop
The oil sands marsh tech transfer is rolling along at full speed. In November, the first phase of the tech transfer project kicked off with two technical sessions, one with ecologists and the other with toxicologists, that have developed expertise in marsh reclamation over the past decade. The sessions focused on the questions below; the first 2 of the 4 tech transfer questions:

1. What is the threshold concentration of naphthenic acids to allow for "natural" marsh function?
2. How to manage salinity within the context of wetland biological function?

The sessions were well attended, and included Canada's premiere ecologists and toxicologists, that have worked on Oil Sands issues. "Key messages" were derived from research that has occurred over the past decade. Key Messages relate important research findings to the specific questions (listed above) in regard to oil sands wetland research, and ideally, oil sands reclamation.

The first phase of the Wetlands Tech Transfer Project culminated with a workshop at the end of January. Day 1 of the workshop focused on bringing together ecologists and toxicologists to share all key messages derived from each of the two individual tech sessions that were held in November. The goal of Day 1 was to generate discussion and obtain feedback on key messages with the intent of providing input to refine ecologist and toxicologist key messages. Day 2 of the workshop focused on introducing the project to hydrogeologists and hydrogeologists and other participants that will be involved in the next phases of work.

Phase 1 of the project went better than we could have imagined. We were encouraged by the open and frank discussions, the enthusiasm of the participants to share professional knowledge and synthesize the body of work related to the two questions. Over 60 key messages were derived during tech sessions and workshops. Some of these, we believe, will undoubtedly change the way we reclaim, manage, and think about marshes in the Oil Sands area. The ASG is excited for the tech transfer process to get to the point where we can share and finalize the information. The next phase in the project is for hydrogeologists and reclamation engineers to consider key messages derived by ecologists and toxicologists and derive key messages for optimal marsh reclamation design.

CEMA News

CEMA

Meeting Dates

Management Committee Meetings:
Fort McMurray

April 22nd
May 12th June 24th
July 22nd September 9th
October 21st November 15th
December 16th

General Meeting Dates: Fort McMurray

March 24th
March 25th (AGM)
June 08th
June 09th
September 22nd
September 23rd
December 08th
December 09th

Program Manager/Co-Chair/
Management Committee
Meetings: Fort McMurray

April 21st
September 8th
October 20th

* Dates and locations are subject to change.

A complete list of Working Group meeting dates is available at
(780) 799-3947 | www.cemaonline.ca

BABY NEWS

On February 9, Margaret Luker gave birth to Mia Marie, weighing in at a healthy 7 lbs 7ozs. Mommy & baby are both very well. CEMA would like to offer a congratulations to the Lukers!

Big brother
Logan with Mia.



Ruth Goes Global

The United Nations Climate Change Conference (COP15) was held in Copenhagen, Denmark,

December 7-18, 2009. CEMA treasurer and environmentalist Ruth Kleinbub attended.



"My Wife Plays Soccer"



Over the past year CEMA's President Rick Brown and Executive Director Glen Semenchuk, have forged a close working relationship. For many months, while sipping light beers the two have referenced their wives love for the game of soccer.

Both promised to check with their better halves to confirm which league they play in. Finally after 11 months, the two men did a little research and asked Sandy and Rosa, which league they play in? Not only do they two ladies play in the same soccer league, they play on the same team!!! They knew each others first names but never knew their last!

Updates On Working Groups and Sub-Groups

RECLAMATION WORKING GROUP (RWG)

The CEMA Board unanimously approved the 2nd Edition of the Guidelines for Reclamation to Forest Vegetation in the Athabasca Oils Sands Region (The Revegetation Manual) and A Framework for Reclamation Certification Criteria and Indicators for Mineable Oil Sands (C&I Framework). Both documents have now been officially forwarded to the Government of Alberta for consideration.

The RWG had its first meeting of 2010 on February 23rd and 24th and has a very busy schedule in the year ahead. The RWG is undertaking a strategic planning workshop in April to review its long term workplan, its critical path for work to be completed in 2010, as well as work on its initial budget submission for the 2011 fiscal year. This important exercise, also occurring with the Terrestrial Sub-Group and the Aquatics Sub-Group, will work to align the workplan with current priorities, find budget efficiencies where possible, and ensure all stakeholders at the RWG table have a complete understanding of the scope of the RWGs work going forward. As well, the RWG is currently working on its comprehensive 2009 Annual Report which the CEMA Board can expect at the June General Meeting.

The RWG is also pleased to announce that Tanya Richens, the Reclamation Approvals Coordinator for Alberta Environment, has been re-elected to another two year term as RWG Co-Chair. Over the past many years Tanya has made an outstanding contribution to the RWG in supporting the development of its work plan and in ably chairing the numerous meetings of RWG. Fred Kuzmic, the representative for Shell Albian Sands, has one year remaining in his current term as RWG Co-Chair.



RWG Co-Chairs: Fred Kuzmic & Tanya Richens.

RWG: Biodiversity and Wildlife Task Group (BWTG)

The BWTG will have completed its mandate with the anticipated completion of two reports: Biodiversity Review for the Guidelines for Reclamation to forest vegetation in the Athabasca Oil Sands Region by Alberta Innovates – Technology Futures (formerly the Alberta Research Council), and Renewing the Health of Our Forests; Biodiversity Traditional Knowledge of the Oil Sands Region by SENES Consultants. The finalization of these reports is anticipated in Q2 2010. With these documents approved, the group will no longer exist in its current form. The RWG has created a new Wildlife Task Group (WTG) that will focus on wildlife issues only and which will work on those wildlife line items specifically outlined in the 2010 budget. Biodiversity issues will be considered and addressed directly by the RWG going forward as it reviews the Alberta Innovates Reports & SENES and the results of the biodiversity workshop held in fall 2009.

RWG: Closure Coordination Task Group (CCTG)

The CCTG will be meeting in the near future to follow up on the workshop it hosted on November 19th, 2009 entitled Meeting the Expectation of a Continuous Functional Closure Landscape in the Oil Sands Region. The CCTG will be planning its priorities going forward for work in 2010, reviewing a 'straw dog' proposal for the development of descriptive landscape measures for terrestrial ecosite phases and wetlands in the oil sands region, and then bring its recommendation back to the RWG for review.

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.' Once the technical review is complete the RGTG will recommend potential options for moving this document forward to the RWG.

Updates On Working Groups and Sub-Groups

Terrestrial Sub Group (TSG)

TSG is pleased to announce that the Revegetation Manual was accepted for immediate implementation. Alberta Environment will take charge of publishing the Revegetation Manual which will be available shortly on the Information Centre website and through the library.

The TSG is responsible for maintaining and updating the Land Capability and Classification System for Forest Ecosystems in the Oil Sands manual (LCCS). The TSG is defining the 2010 workplan to outline the best approach for updating and revising the LCCS. At the March TSG meeting, the members will discuss options for improving the current LCCS and integrating research results acquired through CEMA and CONRAD funded research programs. Following the March TSG meeting, a new task group will be launched to implement the workplan and begin the process of reviewing and updating the LCCS.

TSG: Best Management Practices Task Group (BMPTG)

The BMPTG is beginning the review phase of the second draft document describing Best Management Practices (BMPs) Guideline for Soil Salvage and Placement for Oil Sands Mines in the Regional Municipality of Wood Buffalo. Since November 2009, the BMPTG members have held four meetings to discuss and revise the first draft BMP documents. The second draft document will be distributed to TSG and RWG for review at the end of March. This document is anticipated to assist members in the development of the 2011 closure plans. A finalized recommendation is expected in Q2 2010.

TSG: Hydrocarbon Task Group (HGTG)

The HGTG has provided recommendations to TSG on salvage of surface soil containing shallow hydrocarbons in a briefing note. The recommendations were developed based on the results of the lean oil sands and tar ball toxicity and degradation studies. These recommendations will be incorporated into the BMPs being prepared by the BMPTG. The HGTG is continuing to characterize the risks of hydrocarbons in reclamation material with a research project initiated in the fall of 2009. The soil samples for this study were collected in January and the laboratory work is underway.

TSG: Forest Productivity Task Group (FPTG)

The FPTG is continuing work on the development of a Growth and Yield Strategic Plan for reclaimed lands. An information gathering session was held in January and the first draft recommendations will be delivered in April. The Growth and Yield Strategic Plan is anticipated to assist in the development of member's Forest Resource Plan (FRP) in 2011.

TSG: Plot Network Task Group (PNTG)

The PNTG will be finalizing the review of the objectives of the long term monitoring plot network and evaluating the methods and protocols utilized on the network based on input from the recommendations coming out of the Growth and Yield Strategic Plan. These discussions will feed into strengthening the long-term soil and vegetation monitoring pro-ocols. The results of the 2009 field work will be presented & reviewed at the upcoming TSG March meeting. The PNTG will also begin work in March on developing a web-based data management system for the long term monitoring plot data.

TSG: Alternative Regeneration Task Group (ARTG)

TSG's newest group, the ARTG has been meeting on an aggressive schedule to develop a recommendation on forest regeneration standards to be used by oil sands mining operations. The task group is undertaking this work understanding that the current base regeneration standards will cease to exist on May 1, 2010.