

Final Minutes



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PM and Ozone Implementation Working Group Meeting #2

Date: Monday, January 30, 2006
Time: 9:30 am – 3:30 pm
Place: City of Calgary

In attendance:

Name	Organization
Alan Brownlee	City of Edmonton
Claude Chamberland	Canadian Petroleum Products Institute (CAPP) & Canadian Association of Petroleum Producers (CPPI)
Andrew Clayton	Alberta Environment
Long Fu	Alberta Environment
Markus Kellerhals	Environment Canada
Martha Kostuch	Prairie Acid Rain Coalition
Myles Kitagawa	Toxics Watch
Kristofer Sirunaris	Energy & Utilities Board
Bob Myrick	Alberta Environment
Mike Pawlicki	Lafarge
Stan Novakowski	City of Calgary
Lisa Stroscher	Calgary Health Region
Scott Sangster	Nova Chemicals
Darcy Walberg	Agrium
Bettina Mueller	CASA
Kevin van Velzen	City of Calgary

Corresponding:

Name	Organization
Gina Rau	Graymont

Observer:

Sherry Sian	CAPP
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Regrets:

Name	Organization
Kevin Warren	Parkland Airshed Management Zone
Alex MacKenzie	Alberta Health and Wellness
Ian Peace	Residents for Accountability in Power Industry Development
Keith Murray	Alberta Forest Products Association

Action Items:

Task	Who	When
2.1 Bob Myrick, Markus Kellerhals to provide the updated GDAD to the PM and O ₃ working group members.	Markus Kellerhals, Bob Myrick	As soon as it is available
2.2 Markus Kellerhals will report on the status of acceptable PM _{2.5} monitors for CWS compliance determination at the next meeting.	Markus Kellerhals	June 5, 2006
2.3 Long Fu to give a presentation on how the AQO and the framework will fit at the next meeting.	Long Fu	June 5, 2006
2.4 Long Fu and Bob Myrick to caucus on what AENV's action will be if the framework is not adhered to and report back to the group at the next meeting.	Long Fu, Bob Myrick	June 5, 2006
2.5 Bob Myrick and Long Fu to send official notification of the PM and O ₃ assessment status to the affected jurisdictions.	Long Fu, Bob Myrick	by March 1, 2006
2.6 CASA secretariat to inform CASA stakeholders of assessment results through the CASA website / the bulletin.	Casa Secretariat	Immediately after AENV Notification to affected CMA's
2.7 AENV to provide to Environment Canada the train of analysis so Environment Canada can review the analysis.	Bob Myrick	March 31, 2006
2.8 AENV to determine which areas within the province fall within the surveillance action level.	Bob Myrick	March 31, 2006
2.9 Bob Myrick to set up a meeting with interested stakeholders to discuss the simplified mechanism in detail.	Bob Myrick	April 30, 2006
2.10 Darcy Walberg confirm the wording in the PM and O ₃ framework document that stipulates that "once you're in a certain action level, you're in".	Darcy Walberg	June 5, 2006
2.11 Bettina Mueller to draft a response on behalf of the working group, circulate it to the co chairs.	Bettina Mueller	February 15, 2006
2.12 Markus Kellerhals will respond to whether stakeholders will have opportunity for input to the 2008 Science Assessment.	Markus Kellerhals	As soon as information is available

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Claude Chamberland convened the meeting at 9:40 am.

1 Administrative

a) Introductions

Those present introduced themselves. Stan Novakowski, City of Calgary, Scott Sangster, Nova Chemicals, Bettina Mueller, Clean Air Strategic Alliance were welcomed to the team as new team members. Kristofer Sirunaris indicated that while he was listed as a corresponding member, he has will be participating in the meetings when they are held in Calgary.

b) Approve agenda and meeting objectives

The agenda was approved with the following changes:

City of Calgary update on the formation of the Calgary Airshed was added to the Agenda as item 1c). Agenda item 3 a) was moved after Agenda item 3 c).

c) Update on the formation of the Calgary Airshed.

Kevin van Velzen from the City of Calgary joined the meeting for the first hour to provide an update on the formation of the Calgary Airshed. The City of Calgary has been reorganizing, participation on the airshed formation committee now falls in Kevin's area, hence the need for staff to get up to speed on this topic. The City is committed to the Airshed formation process and expressed a desire to combine efforts and combined resources with the other stakeholders.

Stan Nowakowski, who works in the Environmental Assessment and Liabilities Group with the City of Calgary will be the representative for the City of Calgary on the PM and O₃ implementation team. Kevin indicated that he will try to attend as many meetings of the PM and O₃ group as possible.

Regarding the Calgary Airshed, a report to council is due by mid June of 2006. In 2005 concerns about air quality in Calgary raised the question as to what the city is actively doing to address air quality issue. City staff in conjunction with the airshed committee is in the process of identifying what the issues are, what it could do, and has started thinking about the management plan possibly required under the PM and O₃ framework. Council is committed to this process and, once they have an understanding of the requirements, will work committing the financial resources required.

One of the current concerns is with the monitoring stations: Are they in the right locations? Are more stations required? City staff and Calgary council is concerned and aware of potential air quality issues and the exceedances that have occurred. The city fielded calls from the media and concerned citizens in this regard.

Team members voiced their support for the formation of the Calgary airshed and suggested that it should involve all the stakeholders right from the beginning. The Parkland Airshed Management Zone is active in dealing with issues and it was recommended to have a look on their website. Their current #1 priority is Human Health; survey results are posted on the website.

Lisa Strosher, of Calgary Health complimented the city's update with the following:

The stakeholder group involved with the formation of the Calgary Airshed zone has established an interim Board. The City of Calgary is part of the interim Board. The airshed will be not for profit society, have bylaws, a mission and vision statement. The interim board discussed start up funding availability with Alberta Environment, which indicated that start up funding of 50 k are available. The stakeholders agreed that the airshed zone boundaries would be the Calgary health region boundary. An RFP for a study on the viability of the proposed airshed zone has been sent out.

A team member indicated that PAMZ might be willing to change its boundaries to meet the Calgary airshed boundary. Boundaries would then be the Calgary health region boundary minus the PAMZ area.

A team member raised the question as to what would happen if it were determined that the Calgary airshed zone is not viable. Lisa suggested that the board might have to then try and “sell” the airshed concept to new stakeholders. The desire was expressed that the formation of the airshed zone move ahead quicker as to effectively deal with the issues at hand.

Deleted:

The question was raised that given the influence on air quality from traffic /transportation, whether the relevant sectors were contacted. Lisa reported that Alberta Transportation was contacted but deferred to Alberta Environment. Contacting the railways has to date not resulted in a response.

d) Review and approve minutes from Meeting #1

The minutes from Meeting #1 were approved.

e) Review action items from Meeting #1

1.1: Bob Myrick and Markus Kellerhals to inquire into the status of the three guidance documents and provide a general update on mechanisms for communication. (Guidance document on achievement determination GDAD, Keeping Clean Areas Clean KCAC, and the Monitoring protocol)

Stakeholder workshop was held last February, a number of consensus recommendations were brought forward (which ones). Consensus was achieved on proposed changes to the new draft Guidance document on achievement determination (GDAD), future changes are up to the Air Monitoring Committee (AMC) and may need to be considered during the revision of the CWS. The GDAD is a reference document for jurisdictions and the public, which provides information, methodologies, criteria and procedures for reporting on achievement of the CWSs for PM and Ozone. It also provides the guidelines for ensuring consistency and comparability of data when meeting other CWS reporting requirements. The document is under review; AENV is involved in the review and aware of the changes. Generally, stakeholders that were at the February 2005 workshop NAME/location were consulted.

Comment [bm1]: Page: 1
Markus/Bob could you please provide the correct name of this document

Comment [BM2]: Page: 1
Markus/Long could you please add these (I don't think they were listed at the meeting but the information may be useful – we can add them in brackets?

A group member indicated that she would like to receive notice on the updates.

The Keeping Clean Areas Clean (KCAC) document was near finalization, the territorial governments had some concerns and would like to bring those to the AMC. It is unclear at this time where the document will go given the change in Minister. The expectation is that the document will be finalized. The Monitoring Protocol was discussed under AI 1.2.

AI Bob Myrick, Markus Kellerhals to provide the updated GDAD to the PM and O₃ working group members.

1.2: Markus Kellerhals to provide an update on acceptable PM_{2.5} continuous monitors. The team working on this disappeared with the dissolution of JAICC. National Air Pollution Surveillance [Network](NAPS) is working on these issues and will bring the issues to the AMC. A national PM comparability-monitoring network has been set up. It uses dichotomous sampler as a reference sampler. Any PM sampler that performs within a certain margin of error of the reference sampler will be accepted.

AI Markus Kellerhals will report on the status of acceptable PM_{2.5} monitors at the next meeting.

It was also mentioned that Environment Canada has started work on the 2008 Science Assessment. It will be the first significant update on smog. It was asked if stakeholders will have opportunity for input.

AI Markus Kellerhals will respond to whether stakeholders will have opportunity for input to the 2008 Science Assessment.

1.3: Lisa Strosher to identify a representative from the City of Calgary.
Complete. Stan Novakowski joined the PM and O₃ working group.

1.4: Claude Chamberland to approach CASA board members from the utilities sector about joining this team.
The Board member was contacted. A representative from the utilities sector has not been identified to date.

1.5: Bob Myrick to contact Alberta Health and Wellness and invite them to join the team.
Complete. Alex McKenzie agreed to join the PM and O₃ team.

1.6: Co-chairs, Donna Tingley to draft terms of reference and circulate by email to the team.
Complete.

1.7: Claude Chamberland to arrange a venue for the next meeting.
Complete.

2 Terms of Reference for the Implementation Team

Copies of the draft Terms of Reference (TOR) were distributed to the group prior to the meeting. The proposal to the CASA board was to establish a group to assess and report on progress in implementing the PM and Ozone framework. The group reaffirmed that:

- The named implementers (not this group) are accountable for actions described in the recommendations.
- That this group provide the multi- stakeholder input as required in a number of recommendations in the framework.
- The team meet 4 times/year.

The TOR was discussed at the meeting and several clarifications/additions were made to the draft document. The team agreed on the revisions to the TOR. Please refer to the attached TO R document for the revised TOR.

3 Actions to Date Under the Framework

a) Review recommendations and provide an update on the status of implementation

The working group reviewed the status of each recommendation. The following table provides the recommendation, the implementer and the status on implementations.

Summary of Recommendations, Status of Implementation

1.	Management Framework Recommendations
1.a.	Acceptance of the PM & Ozone Management Framework It is recommended that the Particulate Matter & Ozone Management Framework be accepted and approved for implementation.
Status	<i>The PM & Ozone Management Framework was accepted and approved by the CASA board at the September 2003 board meeting.</i>
1.b.	Timing of Implementation It is recommended that the PM & Ozone Management Framework be implemented by Alberta Environment beginning in 2004. This would involve completion of the annual analysis and the assignment of corresponding action levels for PM _{2.5} and ozone to all areas of the province by December 2004 using ambient data collected between 2001 and 2003. Actions under the framework should commence in 2005, conditional upon finding a simplified mechanism for transboundary and background analysis (see recommendation 2).
Status	Actions under the framework
	TASK 1 <i>Alberta Environment to conduct the initial analysis of PM and O₃ data.</i> <ul style="list-style-type: none"> <i>This analysis is complete and was provided at the March 2005 Board meeting.</i>
	TASK 2 <i>Alberta Environment to identify episodes that exceeded the trigger levels identified by the CASA PM/O₃ framework.</i> <ul style="list-style-type: none"> <i>This analysis is complete and was provided in a status report at the March 2005 CASA board meeting.</i>
	TASK 3 <i>Alberta Environment to refine/simplify the procedure to back out background, natural and trans-boundary PM_{2.5} and O₃ for episodes that exceeded the trigger levels.</i> <ul style="list-style-type: none"> <i>Simplified were developed, documented and applied to the data during the assessments.</i>
	TASK 4 <i>Alberta Environment to back out background, natural and trans-boundary PM_{2.5} and O₃ for episodes that exceeded the trigger levels.</i> <ul style="list-style-type: none"> <i>Assess days/episodes with ambient concentrations of PM_{2.5} and O₃ that were higher than the Canada-Wide Standards (CWS) exceedance levels. Complete for the 2001-2003 assessment.</i> <i>Apply simplified procedures to assess days/episodes with ambient concentrations of PM_{2.5} and O₃ that were higher than the CASA planning and surveillance triggers. Complete for the 2001-2003 assessment.</i> <i>Both items will be complete for the 2002-2004 assessment by the end of March 2006..</i>
	TASK 5 <i>Alberta Environment to assign action levels to PM_{2.5} and O₃ episodes.</i> <ul style="list-style-type: none"> <i>Repeat analysis of ambient PM_{2.5} and O₃ ambient data after the episodes caused by background, natural and trans-boundary influences have been removed. Complete for 2001-2003 assessment.</i>

	<p>TASK 6 <i>Alberta Environment to develop an automated procedure to calculate the PM_{2.5} and O₃ metrics.</i></p> <ul style="list-style-type: none"> <i>This task is complete; however further automation of the procedure for calculating the metrics through the CASA Data Warehouse will be investigated by December 31, 2005.</i>
	<p>TASK 7 <i>Alberta Environment to produce an annual PM_{2.5} and O₃ assessment report.</i></p> <ul style="list-style-type: none"> <i>A short, 1-2 page written report to the CASA board and airshed zones, summarizing the outcomes of the PM_{2.5} and O₃ ambient levels analysis will be complete by September 15, 2005.</i> <i>A detailed report documenting the procedure and rationale used for the assessment will be completed by October 31, 2005.</i> <i>A non-technical document intended for a public audience will be produced with assistance from CASA administration and airshed zones.</i> <i>Incomplete.</i>
1.c.	<p>Management Framework Review It is recommended that the PM & Ozone Management Framework, including the process for annual analysis of ambient data, simplified mechanisms, and trigger levels, be reviewed by Alberta Environment after three years of practical application and implementation experience, and in conjunction with or immediately following the review of the Canada Wide Standard in 2006. This review should involve interested stakeholders and members of the public</p>
Status	<i>Alberta Environment will initiate the review involving interested stakeholders and members of the public as recommended, in 2007 after the 2005 assessment.</i>
2.	<p>Simplified Mechanisms It is recommended that Alberta Environment lead work on testing simplified mechanisms for determining when episodes are caused by transboundary transport, high background concentrations or natural events, especially for application at trigger levels below the numeric CWS, including simplified methodologies for performing the "Best Efforts Determination" outlined in the <i>Guidance Document for Achievement Determination</i>. This work should involve Environment Canada and interested stakeholders, and should be completed by the end of 2004</p>
Status	<i>Alberta Environment is developed a simplified mechanisms to be applied primarily to episodes that exceed the surveillance or planning triggers and are below the CWS exceedance trigger. Some of these simplified procedures will include: (1) grouping days with PM_{2.5} or O₃ levels higher than the surveillance/planning triggers into common time periods to account for episodes that last more than one day; (2) grouping areas with PM_{2.5} or O₃ levels higher than the surveillance/planning triggers into areas that are impacted by the same PM_{2.5} (e.g. forest fires) or O₃ (high background) mechanisms; and (3) real-time analysis of PM_{2.5} and O₃ data as events occur. The simplified mechanism was documented and circulated for comment to the former PM/O₃ working group members. Further discussion on the simplified mechanism is required.</i>
3.	<p>Alberta Ambient Air Quality Guideline It is recommended that Alberta Environment decide whether to establish new Ambient Air Quality Guidelines for PM_{2.5} and ozone. Members of the project team provide six proposals for consideration by Alberta Environment. These proposals are presented to show the range of options and opinions within the team. If Alberta Environment determines that new guidelines are desirable, public consultation should be undertaken.</p>

Status	<i>Alberta Environment proposed the PM_{2.5} and Ozone Air Quality Objectives (AQO) to the AQO stakeholder working group last fall. The proposed objectives were posted on AENV's website for public comment in February 2005. Comments on PM and ozone AQOs were received from the federal government, health organizations, industry stakeholders, and consultants. AENV will address those comments as part of finalizing the PM and Ozone AQOs. The setting of an AQO for PM_{2.5} is near completion; there is currently no plan to revise the AQO for O₃.</i>
4.	<p>CWS Coarse Fraction Standard</p> <p>With respect to consideration of a Canada Wide Standard for coarse fraction particulate, it is recommended that Alberta Environment take forward the following two positions as input to the Canadian Council of Ministers of the Environment recommendation to Ministers in fall 2003:</p> <p>(a) It is recommended that consideration of an ambient coarse fraction standard be deferred until further health science information is available as part of the national Canada Wide Standard health science review in 2005.</p> <p>(b) It is recommended that consideration be given to the need for national source standards for sectors and activities that are significant sources of coarse fraction particulate and not currently subject to source standards. The team recognizes that at the time of writing this report, Environment Canada is still in the process of developing its position regarding a coarse fraction standard, and therefore affirms that this recommendation is made without prejudice to any positions Environment Canada may choose to take in the future.</p>
Status	<i>Complete: Alberta Environment and Alberta stakeholders brought the recommendations to the CCME workshop on coarse PM in 2003. AENV and the Alberta members of the Core Advisory Group (CAG) also brought the recommendations to a number of JAICC and CAG discussions throughout 2003 and 2004. The recommendations were considered in preparing a JAICC report to the Ministers in 2003. CCME will revisit the need for a coarse PM standard in the 2010 PM and Ozone standard review.</i>
5.	<p>Background PM or Ozone Originating Outside of North America</p> <p>It is recommended that the Joint Action Implementation Coordinating Committee (JAICC) be asked to examine and identify further actions that should be taken to assess the nature of ozone originating from outside North America as well as any actions that should be pursued at an international level.</p>
Status	<p><i>JAICC no longer exists. Environment Canada and Alberta Environment were asked to bring this action forward to the AMC.</i></p> <p><i>Observations of trans-Pacific transport of pollutants started appearing in the scientific literature some years ago. In 1998 a major event occurred, where a significant quantity of Asian dust, originating from desert areas of western China, was lofted high into the atmosphere, transported across the Pacific and mixed down to the surface in western North America. This event caused high levels of PM₁₀ and PM_{2.5} at many sites from California to BC, and was even observed at sites east of the Continental Divide, such as Esther, AB and sites in Montana.</i></p> <p><i>This event provided an impetus for increased study of the issue and, since that time, there have been a significant number of studies published demonstrating trans-Pacific transport of dust, forest fire smoke, and industrial pollution including mercury, ozone, particulate matter, and nitrogen oxides.</i></p> <p><i>To investigate this transport, there have been several airborne observational studies, as well as the establishment of several high elevation monitoring sites in</i></p>

	<p>western North America. University of Washington operates a site on the Olympic Peninsula of Washington State and another site in the Cascade Mountains of Oregon. Environment Canada operates a monitoring site on top of Whistler Mountain.</p> <p>Collectively these studies demonstrate that with appropriate atmospheric conditions significant quantities of pollutants can be transported across the Pacific quite rapidly, in the order of 5-6 days. Most of the transport seems to happen in the mid troposphere. How often these pollutants are mixed to the ground in significant quantities and how great the contribution of that long-range transport is to average and peak levels is still an area of active research.</p> <p>For a FAQ on the subject there is a good website, belonging to one of the leading groups researching trans-Pacific transport, (http://faculty.washington.edu/djaffe/FAQs.htm). This site also has links to many peer reviewed papers on the subject.</p>
6.	<p>MERS/MERAF</p> <p>It is recommended that the sector specific information and data compiled under the national MERS and MERAF (Multi-Pollutant Emission Reduction Strategy and Multi-Pollutant Emission Reduction Analysis Foundation) initiatives be made available by Alberta Environment to all stakeholders involved in implementation of the PM & Ozone Management Framework, including those who participate in the development of mandatory plans or management plans under the Framework.</p>
Status	<p>Alberta Environment will work with CASA to ensure easy access to those documents by all interested Alberta stakeholders, including members of the disbanded PMO3 Team. The MERS / MERAF documents can be downloaded from: http://www.ccme.ca/initiatives/standards.html?category_id=61.</p>
7.	<p>Monitoring</p> <p>The CASA PM & Ozone Project Team recommends to the Operations Steering Committee that the monitoring system for Alberta be reviewed and evaluated to determine whether changes are required to meet the needs of the proposed PM & Ozone Management Framework for Alberta.</p>
Status	<p>In response to concerns raised regarding the collection of particulate matter and ozone ambient air quality data, the CASA Operations Steering Committee put forward a statement of opportunity for the formation of an Ambient Air Quality Monitoring Strategic Planning Project Team with the task of reviewing and updating the 1995 Strategic Plan for the monitoring of Alberta's ambient air. The project team has started their work and has defined the PM&O3 Framework as a priority. The results from the 2001-2003 PM and O₃ assessment will be provided as information to the team for consideration of improvements to the strategic plan. The CASA team will consider improved strategic monitoring in areas that exceeded the CWS exceedance trigger. The CASA team will also evaluate monitoring for PM and O₃ in areas of the province that exceeded planning and surveillance triggers.</p>
8.	<p>Alberta Guidance Document</p> <p>a) Adoption It is recommended that the <i>Guidance Document for the Management of Fine Particulates and Ozone in Alberta</i> be accepted and approved for use in Alberta.</p> <p>b) Availability It is recommended that the <i>Guidance Document for the Management of Fine Particulates and Ozone in Alberta</i> be made available to stakeholders via the CASA website and by Alberta Environment through linking to the CASA website. Both CASA and Alberta Environment shall provide hard copies of the Alberta</p>

	<p>Guidance Document on request.</p> <p>c) Future Reviews</p> <p>It is recommended that the <i>Guidance Document for the Management of Fine Particulates and Ozone in Alberta</i> be reviewed and updated in conjunction with the review of the PM & Ozone Management Framework in 2006/07. Alberta Environment shall coordinate the review and involve interested stakeholders.</p>
Status	<p><i>The Guidance Document for the Management of Fine Particulate Matter and Ozone in Alberta was approved by CASA at the September 2003 board of directors meeting. The document is available on the CASA website at http://www.casahome.org/casa_library/bygroup.asp?idnumber=8 and is linked to the Alberta Environment website at http://www3.gov.ab.ca/env/air/index.html. Hardcopies of the document are made available to stakeholders from either CASA or Alberta Environment on request. Also, the framework has been communicated within Alberta Environment through several PowerPoint presentations. Alberta Environment will coordinate a review of the guidance document in 2006/07 in conjunction with the review of the framework.</i></p>
9.	<p>Communications with Stakeholders and the Public</p> <p>The team recommends that CASA and Alberta Environment coordinate strategies to ensure Albertans are notified of the PM & Ozone Management Framework, how it works and key recommendations from the project team. As per recommendation PMO3-9(b) the Guidance Document for the Management of Fine Particulate Matter and Ozone in Alberta – which includes the PM & Ozone Management Framework - should be available on the CASA website and Alberta Environment should provide stakeholders with a link from its website to the Alberta Guidance Document on the CASA website.</p>
Status	<p><i>CASA, working with Alberta Environment, held a news conference in September 2003 where the PM&O3 framework was announced. The mechanics of the framework as well as key recommendations from the project team were highlighted. The news release and a PM&O3 backgrounder can be found on the CASA website at: http://www.casahome.org/for_media/news_releases/index.asp. In addition, as mentioned under Recommendation #8, the guidance document is available through the CASA website and is linked to the Alberta Environment website. Once the 2001-03 particulate matter and ozone assessment is complete, Alberta Environment, with assistance from the CASA Secretariat, will communicate the results of the assessment to interested stakeholders and public. During these communications, stakeholders will have the opportunity to solicit additional information on the rationale for the decisions formed as part of the assessment. The next stage will be to determine the appropriate actions in areas of Alberta with ambient concentrations of particulate matter or ozone that were higher than the CWS exceedance, planning and surveillance triggers. A higher priority will be placed on communication to stakeholders in areas that had ambient levels higher than the CWS exceedance trigger.</i></p>
10	Science and Analysis Recommendations
10.a.	<p>It is recommended that Environment Canada, working together with Alberta Environment, model ozone and PM concentrations in Alberta for a range of future emission scenarios. A report on this work to be delivered to the CASA Board in 2005.</p>
Status	<p><i>Environment Canada in co-operation with Alberta Environment has decided on the scenarios to be modelled. The base case scenario will use year 2000 emissions. The future case will use projected 2010 emissions. The meteorology for both cases will be from the same year, 2002. 2002 had a summer with many hot days in central Alberta, so is considered to be close to a worst case for summertime ozone formation. 2002 also did not have many forest fires, so evaluation of the base case will not be complicated by these “external-to-the-</i></p>

	<p><i>model” effects. The entire year will be modelled, allowing evaluation of both summertime ozone episodes and wintertime PM episodes.</i></p> <p><i>So far the base case anthropogenic and biogenic emissions have been processed and the 2010 projected emissions have been calculated (based on the ChemInfo report and additional project specific information) and the meteorological modelling is underway. The chemical modelling, which depends on the modelled meteorology as one of its inputs, will begin shortly. The chemical modelling will be undertaken using CMAQ, a state of the art one-atmosphere model.</i></p> <p><i>Environment Canada will conduct the verification of the meteorological modelling internally. The verification of the base case PM and ozone modelling, along with the analysis of the results of the future emissions scenario will be conducted by a consultant. The timelines for this work have slipped a little, it is expected that the work be completed by May 2006</i></p>
10.b.	<p>It is recommended that Environment Canada, working together with Alberta Environment, use regional photochemical models to investigate which geographic regions and emitting sectors are contributing to ozone and secondary PM in Alberta. A report on this work to be delivered to the CASA Board in 2005.</p>
Status	<p><i>Environment Canada, in co-operation with AENV has decided on the sector scenarios to be modelled. The study will look at the relative contribution from five different emission sectors: transportation, electric power generation, upstream oil and gas, oilsands, and chemicals and refineries. The modelling will be conducted using year 2000 emissions and 2002 meteorology. 2002 had a summer with many hot days in central Alberta, so is considered to be close to a worst case for summertime ozone formation. 2002 also did not have many forest fires, so evaluation of the base case will not be complicated by these “external-to-the-model” effects. The entire year will be modelled, allowing evaluation of both summertime ozone episodes and wintertime PM episodes.</i></p> <p><i>So far the base case anthropogenic and biogenic emissions have been processed and the 2010 projected emissions have been calculated (based on the ChemInfo report and additional project specific information) and the meteorological modelling is underway. The chemical modelling, which depends on the modelled meteorology as one of its inputs, will begin shortly. The chemical modelling will be undertaken using CMAQ, a state of the art one-atmosphere model.</i></p> <p><i>Environment Canada will conduct the verification of the meteorological modelling internally. The verification of the base case PM and ozone modelling, along with the analysis of the results of the five source sector scenarios will be conducted by a consultant. . Environment Canada will be able to present the final report at the June 2006 CASA Board meeting. It was suggested that there be an evening meeting prior to the board meeting to present some of the more technical issues.</i></p>
10.c.	<p>It is recommended that Environment Canada conduct research to investigate the vertical structure of ozone in the atmosphere to better determine the contribution of stratospheric intrusion and tropospheric mixing to ground level ozone. A report on this work to be delivered to the CASA Board in 2005.</p>
Status	<p><i>Environment Canada is currently analyzing data from the Harlech monitoring program. In fall 2005 Environment Canada will prepare a report that synthesizes the work done to date on stratospheric intrusions of ozone in Alberta. Environment Canada will be ready to present this information to the board in Dec 2005.</i></p>

Comment [bm3]: Page: 1
Any further updates on this?
Markus

10.d.	It is recommended that the Operations Steering Committee be asked to investigate the usefulness of and the need for ambient PAN (peroxyacetyl nitrate) and additional ambient VOC monitoring in Alberta as part of its review of the ambient monitoring network.
Status	<i>The CASA Ambient Air Quality Monitoring Strategic Planning Team is considering additional monitoring for chemicals that are precursors and components of photochemical smog such as PAN and VOCs. The team is considering that emphasis for additional monitoring of these chemicals could be placed on areas of the province with PM_{2.5} or O₃ levels that were higher than the CWS exceedance trigger based on the 2001-2003 assessment. This will involve consideration of additional monitoring upwind and downwind of exceedance areas during photochemical smog events. Results from this type of monitoring would assist in future annual PM and O₃ assessments while also providing information that can be used to identify sources and to take the appropriate actions in exceedances areas.</i>
10.e.	It is recommended that Alberta Environment take the lead in conducting scenario analyses for the provincial and regional Criteria Air Contaminants (CAC) emission forecasts. These analyses could include, among other factors: the potential impact of new performance standards for the electric power sector, the pace and magnitude of oil sands development projects, the potential effects of additional bitumen upgraders, the potential effects of climate change policy initiatives affecting greenhouse gas (GHG) and CAC emissions, the potential effect of new standards for on- and off-road vehicles, and changes to economic projections. A report on this work to be delivered to the CASA Board in 2005.
Status	<i>NOT COMPLETE: This work is currently not on the workplan.. The question was raised whether AENV should be the main implementer for this action as most of the work is done by the Environment Canada's Pollution Data branch. This work needs to be completed for the areas that need to develop management plans. AENV is not resourced to do this work. It was suggested that AENV needs to allocate resources to deal with these issues as it affects the management plan development. The forecast is produced by Pollution Data branch and is broken down by province and sector. Environment Canada and the provinces working together on the Emissions Projection Working Group (EPWG) have produced an emissions forecast based on the 2000 national inventory. .</i>
10.f.	It is recommended that the 1999 recommendation of the Alberta multi-stakeholder group for particulate matter and ozone (MSG) regarding source apportionment be renewed and continued, whereby Alberta Environment takes the lead in: <ul style="list-style-type: none"> i) Conducting further research on source apportionment to ensure that: <ul style="list-style-type: none"> - Source profiles are accurate, reliable, comprehensive and appropriate for Alberta emitters, - Data are gathered on additional ambient species and the way in which they fluctuate over time, and - Models most appropriate to the Alberta situation are used and that expertise is available to correctly interpret the results. ii) Collaborating with other jurisdictions to improve methodologies for source apportionment modelling, data collection, study design and interpretation of results.
Status	<i>Complete. Alberta Environment will provided an update presentation to the CASA board at their September 2005 meeting.</i>
11.	Dissolution of Team It is recommended that the PM & Ozone Project Team be dissolved upon the CASA Board's acceptance and approval of the team's final report.
Status	<i>Completed in September 2004.</i>

Comment [bm4]: Page: 1
Long, could you please elaborate further

No.	Other Reporting Requirements (From: Guidance Document for the Management of Fine PM and O ₃ in Alberta (2003))
G 10.1	Provide a 1-2 page written report to CASA, airshed zones on the PM _{2.5} and O ₃ analysis annually. Provide a non-technical version of this document for the public. Provide a separate 1-2 page written report on activities and programs that relate to CI and KCAC. These activities and programs may include, but are not limited to modeling, monitoring network expansion analyses, pollution prevention activities, emission minimization, emission reduction, new guidelines, codes of practice and research.
Status	NOT COMPLETE: <i>A draft report for the 2001-2003 assessment was provided. The report needs to be finalized. Not completed were the public report, and update on Continuous Improvement and Keeping Clean Areas Clean. Not completed are any of the reports for the 2002-2004 assessments.</i>
G 10.2	Provide an annual report on Achievement of the CWS by each jurisdiction in a standardized "report card" format. The format to be developed and agreed to by all jurisdictions, and provided to Ministers and the public by 30 September of each year, beginning in 2011.
Status	NOT COMPLETE <i>The format will be part of the 06 CWS comprehensive report. The CWS report is a CCME requirement.</i>
G 10.3	Provide a five-year comprehensive report for the year 2005 and for every fifth year thereafter to Ministers and the public by 30 September of the following year. The report will be an interim report on progress towards meeting the CWS, and subsequent reports will focus on achievement of the CWS applicable at that time.
Status	AENV is on schedule to report by September 30,2006

i) Accountability for implementation

Working group members voiced their concerns with implementation of the recommendations of the PM and O₃ framework. The question was raised whether there is a regulatory backstop in the event that affected jurisdiction do not draft or implement a Management Plan. How will AENV enforce the actions agreed on under the framework?

There was concern that the Ambient Air Quality Objectives do not relate to the action level under the PM and O₃ framework, hence it was suggested that there would be no regulatory tool to enforce action. It was suggested that AAQO are compatible with the framework; the triggers levels are not meant to be not to exceed levels. The intent of the staging of the action levels is to incent voluntary action.

Action should be taken by all stakeholders, with AAQO's being a regulatory backstop.

Group members asked what the problem with setting the AQO for PM_{2.5} at 20 µg/m³ – in the absence of an AQO at this level, who will make sure that something will actually be done.

It was responded that an AQO of 20 µg/m³ is too stringent to implement in Alberta as it may lead to too many exceedances. Also it would not be in line with the CWS of 30 µg/m³. It was pointed out that there was no consensus on AQO for PM_{2.5}.

The question was raised again as to what actions AENV is proposing if the framework is not complied with? Group members did not expect an answer at this meeting but would like to bring it to the attention of the regulator due to the fact that the wording in the framework is non mandatory (AENV may impose a plan (p.34, 3.4.2.3). The group requested that it would like AENV to have an internal

discussion and to bring this back to the group. It was suggested that if stakeholders fail to develop the plan then AENV must have the ability to implement a plan.

AI: Long Fu to give a presentation on how the AQO and the framework will fit at the next meeting

AI: Long Fu and Bob Myrick to caucus on what AENV's action will be if the framework is not adhered to and report back to the group at the next meeting.

b) Update on the finalized draft of the 2001-2003 assessment report

Bob Myrick presented the update on 2001 –2003. AENV held a meeting with Environment Canada to discuss the air quality episodes that occurred. There was a need to determine if there is evidence of episodes originating due to high background concentrations or anthropogenic activities. Modeling is required to assess the source of the episode. The modeling will not be completed by Environment Canada until May 2006. At this time it is evident that the Edmonton and Calgary CMA fall within the Management Plan action level regardless of further modeling and possible episode removal. AENV decided that Edmonton and Calgary CMA's fall within the Management Plan Action Level stage and that a Management Plan would need to be developed for the areas.

(Bob to provide numbers)

The preliminary analysis indicates that Red Deer falls also within the Management Plan action level. However, there is a need to obtain modeling results prior to making a decision on removal of episodes as the removal of episodes may lead to it falling into the surveillance action level. Team members raised the question if the source is outside the CMA but within Alberta, does this mean the episode can be backed out? If the source is within Alberta a management plan still needs to be developed (episodes cannot be backed out). The question was raised whether PAMZ should start the management plan development regardless of decision not being made. The working group agreed that PAMZ can hold off for now but be on standby.

It was indicated that within AENV there still is no agreement on when the clock starts ticking for the 2-year period for developing a management plan. The group's understanding was that assessment be completed by the end of the year following the assessment year. For the 2001-2003 assessment should have been completed by the end of 2004 with notification of the affected jurisdictions occurring by the end of 2004. With the two-year period for the development of a management plan starting on January 2005. Due to the delay for the 01-03 assessment notification should have been January of 2006. It was suggested that for this year the clock start ticking as soon as the letters of notification have been provided to the affected CMA's. It was further stated that they should be provided as soon as possible. In general group members expressed concerns with the delay of the analysis.

Alan Brownlee indicated that there is a need to have something clearly in writing to advise the city [of Edmonton], as they cannot mobilize resources otherwise. He requested an official letter from AENV.

Group members advised AENV that notice needs to be provided not just to the cities but there should be a public notice. It is further important to provide contextual information to the stakeholders as the stakeholders developing the management plan need to know within which range they fall within the assessment levels as it affects the development of the plan.

AENV has not decided how they will make the results of the assessments public. The working group advised AENV to send official notification by March 1, 2006 of the decision that Calgary and Edmonton CMA's have triggered the management plan action level, and that they have 2 years from the date of the notice to develop a management plan. The group further

recommended that public notice be provided and CASA stakeholders be informed through the CASA website / the bulletin.

AI Bob Myrick and Long Fu to send official notification of the PM and O3 assessment status to the affected jurisdictions by March 1, 2006.

AI CASA secretariat to inform CASA stakeholders of assessment results through the CASA website / the bulletin.

c) Update on the 2002-2004 assessment report

Andrew Clayton of Alberta Environment provided an update the preliminary results for the 2002 – 2004 assessment period. Those results are likely to change because the data provided do not include the backing out of natural events. Four tables were handed out: two tables each for PM and O₃ concentrations, one before any backing out occurred, one with the analysis at its present stage of completion.

The analysis at this stage of completion includes 2003 finalized, 2002 pending modelling results from Environment Canada, and 2004 with episodes above the CWS analysed and backed out where appropriate for both PM and O₃. Episodes below the CWS were analysed for only some sites, and only for ozone. The sites that report under the Edmonton and Calgary CMA's have been examined.

Particulate matter continues to be of lesser concern than ozone. No sites exceeded the CWS for PM after analysis. Also only a few sites are slightly above the planning trigger, with the highest being Lamont with a PM_{2.5} concentration of 24 µg/m³ (the CWS is 30 µg/m³).

Ozone continues to be high and close to CWS exceedances. The Edmonton CMA, Tomahawk, and Caroline exceeded the CWS prior to backing out natural, and transboundary influences. Backing out of natural and transboundary events resulted in no exceedances of the CWS. Edmonton and Calgary will likely be in the Management Planning action level once again, while Tomahawk and Caroline (and others) will likely drop below the planning trigger. Edmonton CMA is close to triggering the management action level, at 65 ppb, while Calgary is a little bit lower at 63 ppb.

The previously mentioned modelling conducted by Environment Canada includes "province-wide episodes" in the summer of 2002. The modeling runs are completed primarily to determine whether Red Deer's ozone is due to local sources, or if it is due to influences from Edmonton and/or Calgary. Ozone concentrations at Red Deer are currently 60 ppb, but this could decrease to 58 ppb if ozone is transported to Red Deer from Edmonton and Calgary.

It is expected that final results will be ready by the end of March 2006 for most stations. Red Deer will be finalized by June 2006, following the results of the modelling. AENV indicated that a technical report will be prepared that outlines the calculation methodologies used and the episode analysis decision criteria.

The question was raised whether AENV determined which areas fall within the surveillance action level. AENV has not determined which areas fall within the surveillance level to date. The group advised that Alberta Environment will need to determine which locations fall within the surveillance action level.

There are many areas in the province that have high background levels of ozone – based on contextual factors that affected a particular region AENV must decide whether monitoring is required. E.g. baseline mountain has high background ozone levels – is there more monitoring required or not if concentrations are below 58 ppb. Intent is to initiate discussion and thinking around whether monitoring efforts need to be intensified or additional analysis needs to be done.

Comment [BM5]: Page: 1
Andrew, could you please define the difference between a background/natural event.
Thks

Comment [BM6]: Page: 1
Andrew, could you please explain

Comment [BM7]: Page: 1
Andrew, Bob could you please verify this comment. Earlier we said that only transboundary or natural/background sources are applicable for backing out – but Alberta anthropogenic sources do not

The response to these questions needs to be included in the report on the implementation of the framework.

The working group is encouraging AENV to carry this task out.

AI AENV to provide to Environment Canada the train of analysis so Environment Canada can review the analysis.

AI AENV to determine which areas within the province fall within the surveillance action level.

d) Review and discussion of the simplified mechanisms

AENV was tasked to develop a simplified mechanism procedure for episodes that are below the CWS. The procedure was circulated in August of 2005. The responses received to the simplified mechanisms were circulated to stakeholders prior to the meeting. The comments fell in three general categories:

The simplified mechanism and the decision tree should not necessarily be the bottom line.

The validity of the assertion that below 18° photochemical reactions do not take place and does this mean that the episode will be automatically removed.

What happens at the foothills locations: if co-pollutants are measured at higher levels at those locations are those stations automatically removed as "natural background".

It was stated that the simplified mechanism is a GUIDE and not a YES/NO procedure. For foothills air monitoring stations documentation is required that there are no anthropogenic sources prior to removal

Below 18 C / is considered a threshold for photochemical production. There are circumstances where those assumptions are not correct hence there won't be automatic removal of episodes just because the temperature is below 18°C.

Comment [bm8]: Page: 1
Bob, Long could you please provide examples

Some group members expressed a desire to hold this detailed discussion with a smaller group that has expertise and interest in the area. The group agreed to discuss this item for 20 min and then move on in the agenda, if possible adjourn the meeting earlier and discuss it after the meeting with interested members. Or set up a conference call with interested group members if required

Those who are interested in discussing this further were

Darcy Walberg, Markus Kellerhals, Martha Kostuch, Lisa Strosher, Bob Myrick, Long Fu. AENV will coordinate subgroup to have a discussion via conference call if still required after the meeting.

AI Bob Myrick to set up a meeting with interested stakeholders to discuss the simplified mechanism in detail.

e) Determine the process for assessments that fall one year above and the next below the planning threshold.

The working group discussed in context of the 2002-2004 assessment whether a management plan should be pursued even if in a subsequent year the Management Plan action level is not triggered for a CMA. It was expressed that once an area triggers the management plan action level the CMA must develop a management plan even if in subsequent years pollutant concentrations are below the management plan action level. There was disagreement in the group for the current circumstance in that two assessment periods were completed at the same time. A working group member indicated that given that the assessments for 2001-2003 and 2002-2004 were completed at the same time the most recent one should only be considered for triggering the Management Plan action level. Group members indicated that this does not meet the intent of the framework and that the framework is explicit on "Once you are in, you are in". A group member was tasked to confirm the wording contained in the PM and O₃ framework document

The representative for the Red Deer area indicated that they don't see a problem with looking at having a management plan, or with complying with the framework. The management plan will consider concentration trends when drafting the extent of the actions under the plan. If trends are downward, actions taken may not need to be extensive, or, if there are upward trends, actions taken may be significant. Hence, labour intensive efforts may not be needed when an area bounces in and out of the Management Plan Action level.

AI Darcy Walberg confirm the wording in the PM and O3 framework document that stipulates that "once you're in a certain action level, your're in".

AI Bettina Mueller to add this item to the next meeting agenda for further discussion.

f) Process for aligning the AENV and ENV CAN assessments

Concerns were raised by group members as to the possibility of obtaining different assessment results from AENV as opposed to Environment Canada. AENV does the complete assessment as required by the framework. Environment Canada does a limited assessment in that they do not utilize backing out procedures. Ultimately AENV will be the decision maker when assigning action levels under the Alberta framework. Environment Canada will be involved in the review for the framework but is responsible only for determination of CWS levels.

Environment Canada has provided summary reports in which concentration levels, but backed out numbers were reported. However, the reports indicate whether concentrations were affected by transboundary or natural events. The report provides the concentration calculated, but will stipulate that the "CWS would not have been exceeded if it was not for transboundary influences". Hence, if AENV reports both concentrations before backing out and after backing out then pollutant concentrations should align with the values presented in Environment Canada reports.

The group stressed to Alberta Environment and Environment Canada that reporters need to be careful with the information and data that are provided in the reports. Data need to be clearly labeled and indication needs to be given how the concentrations were calculated in order to avoid confusion.

4 CASA Board Strategic Planning- PM and O3

The team reviewed the memo sent by Donna Tingley, which requested feedback from the working group to the Board, and the draft response provided by the project manager. The group discussed whether the issues raised fell within the TOR of the implementation team and raised concerns that expectation may be set up that this group will be managing the issues referred to in the memo.

It was also brought to the team's attention that one team member did not agree with the process of contacting the teams and requesting feedback on an issue raised by one board member alone. The team agreed that the project manager draft a response to the CASA Board based on the discussion held at the meeting and circulate the response to the co-chairs prior to sending it to the board. The following text was submitted to the CASA Board in response to their memo.

Subject: CASA Board Strategic Planning – PM and Ozone

In response to the questions in your Memo from January 9, 2006 regarding *PM – agriculture and others; road dust; backyard fires in urban areas – drifting smoke, impact on health and property*, the PM and O₃ Implementation working group provides the following answers:

The Particulate Matter (PM) and Ozone (O₃) Implementation working group has not specifically discussed the above issues. However, these issues were discussed by the PM and O₃ project team, which resulted in recommendations that are documented in the Alberta PM and O₃ Framework (CASA 2003). The team agreed that the Framework adequately covers these issues.

Further, addressing these issues does not fall within the proposed Terms of Reference for the PM and O₃ Implementation working group as the primary role of this working group is to support and when required, facilitate, the timely implementation of the existing Alberta Particulate Matter and Ozone Management Framework (CASA 2003).

We would be happy to discuss these answers with the CASA board at any time.

PM and O₃ Co-Chairs

AI Bettina to draft a response on behalf of the working group and circulate it to the co chairs.

5 Other Business

Update on CASA activities

The following upcoming workshop/symposium were recommended to the working group

CASA Strategic monitoring workshop – June 6, 2006, Calgary

CASA Science Symposium on Nitrogen – September 27 – 29 2006, Fairmont Chateau Lake Louise

Also, it was mentioned that the Electricity Project Team advisory committee to Alberta Environment finished it's work January 27, 2006 – The Mercury Regulation as well as the Guidance document for emissions trading are ready.

6 Next Meeting

The next meeting will be in Edmonton on June 5, 2006.

The meeting adjourned at 3:40 pm.