Final Minutes

PM and Ozone Implementation Team
Meeting #3

Date: Monday, June 5, 2006
Time: 9:30 am – 3:30 pm
Place: CAPP Offices, Calgary

Clean Air Strategic Alliance
10th anniversary 1994-2004

10035 108 ST NW FLR 10
EDMONTON AB T5J 3E1
CANADA

Ph (780) 427-9793
Fax (780) 422-3127
E-mail casa@casahome.org
Web www.casahome.org

In attendance:

Name	Organization
Claude Chamberland	Canadian Petroleum Products Institute (CPPI)
Andrew Clayton	Alberta Environment
Dave Fox	Environment Canada
Kristina Friesen	Environment Canada
Markus Kellerhals	Environment Canada
Martha Kostuch	Prairie Acid Rain Coalition (by phone)
Rachel Minz	Environment Canada
Bettina Mueller	CASA
Bob Myrick	Alberta Environment
Stan Novakowski	City of Calgary (for Agenda items 1 to 2 a))
Sian Pascoe	Canadian Association of Petroleum Producers (CAPP)
Ian Peace	Residents for Accountability in Power Industry Development
Scott Sangster	Nova Chemicals
Kristofer Sirunaris	Energy & Utilities Board
Dave Slubik	EPCOR
John Squarek	Canadian Association of Petroleum Producers (CAPP)
Lisa Strosher	Calgary Health Region
Darcy Walberg	Agrium
Kevin Warren	Parkland Airshed Management Zone

Corresponding:

Name	Organization
Gina Rau	Graymont

Regrets:

Name	Organization
Alan Brownlee	City of Edmonton
Long Fu	Alberta Environment
Myles Kitagawa	Toxics Watch
Keith Murray	Alberta Forest Products Association
Mike Pawlicki	Lafarge
Karina Bodo	Alberta Health and Wellness

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
2.3 Long Fu to give a presentation on how the AQO and the framework will fit at the next meeting.	Long Fu	Carry forward
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	Carry forward
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 CMAs
2.7 AENV to provide to Environment Canada the train of analysis so Environment Canada can review the analysis.	Bob Myrick	Carry forward
2.8 AENV to determine which areas within the province fall within the surveillance action level.	Bob Myrick	Carry forward
3.1 Environment Canada will obtain a list of the sites in the comparability network and provide it to the team.	Environment Canada	June 2006
3.2: Clarify who is the implementer for the third report in recommendation G 10 1.	Bob Myrick	October 25
3.3: Let the team know before the June CASA board meeting if AENV is not ready to send out the notification letter and media release.	Bob Myrick	June 21, 2006
3.4: Take forward to AENV a) the suggestion of communicating to all industries in the notification areas, and b) the need to develop a plan for reaching the transportation sector.	Bob Myrick	June 30, 2006
3.5: Review the analysis and revisit whether Red Deer is above or below the planning trigger.	Bob Myrick	June 19, 2006
3.6: Enquire if a draft of Alberta's report can be circulated to the team before submitting it to the CCME.	Bob Myrick	July, 2006
3.7: Forward copies of the Environment Canada presentations to Bettina for distribution to the team.	Markus Kellerhals, Dave Fox	June 2006

Bob Myrick convened the meeting at 9:45 am. Bettina thanked CAPP for hosting this meeting.

1 Administrative

a) Introductions. Those present introduced themselves. Bettina reviewed the CASA ground rules and reminded team members that they should a) be aware of when they have the authority to make a decision, b) be clear if they are speaking their view or that of their stakeholders, and c) ensure that they are communicating back to their stakeholders.

b) Approve agenda and meeting objectives. Bob reviewed the agenda and a few small adjustments were made to time allocations. The agenda and meeting objectives were approved by consensus.

c) Review and approve minutes from Meeting #2. Markus had provided some clarifications to Bettina, mainly for section 1e, and he provided these to the group. Lisa noted that the Calgary Regional Airshed Zone has not contacted Alberta Transportation, although there is concern that the transportation sector is not actively involved with the zones. With those clarifications, the minutes from Meeting #2 were approved. Bettina will make final changes, and the revised minutes will be circulated to the team and posted on the CASA website.

d) Review action items from Meeting #2

2.1 Bob Myrick, Markus Kellerhals to provide the updated GDAD to the PM and O_3 team members.
Markus talked to Dennis Herod and the updated GDAD is not quite finished. It will be translated and circulated once again for review by stakeholders. Once finalized it will go onto the CCME website and Markus will distribute the link. No commitment was made to a firm date, but it is expected soon.

2.2 Markus Kellerhals will report on the status of acceptable $PM_{2.5}$ monitors for CWS compliance determination at the next meeting.
Markus noted this refers to a monitoring protocol that includes PM monitors. It was being done under the auspices of the JAICC, which has been disbanded, and the task moved over to the NAPS managers. They have issued a contract to continue writing the monitoring protocol, which includes a description of siting issues, PM and ozone monitoring for CWS, and reference method for PM; a second draft is expected this month and the document should be done later this year, then it will be up to each jurisdiction to decide how wide they want to distribute the information. A comparability network is now operating, which will be used to develop performance criteria for PM monitors. The performance criteria will be published in 2007. Recommendations regarding PM monitors could include a transition period for network compliance, and the timelines and process could have implications for monitoring in the Census Metropolitan Areas.

Action 3.1: Environment Canada will obtain a list of the sites in the comparability network and provide it to the team.

2.3 Long Fu to give a presentation on how the AQO and the framework will fit at the next meeting.
Long Fu was unable to attend this meeting, so the presentation will be deferred.

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.
Addressed later on this agenda.

2.5 Bob Myrick and Long Fu to send official notification of the PM and O_3 assessment status to the affected jurisdictions.
Not done; will be discussed later on this agenda.

2.6 CASA secretariat to inform CASA stakeholders of assessment results through the CASA website / the Clean Air Bulletin.
This has not yet been done because AENV has not yet issued notification letters. Carry forward.

2.7 AENV to provide to Environment Canada the train of analysis so Environment Canada can review the analysis.
Carry forward

2.8 AENV to determine which areas of the province fall within the surveillance action level.
Not done. Carry forward

2.9 Bob Myrick to set up a meeting with interested stakeholders to discuss the simplified mechanism in detail.
A meeting was held on the process used to back out episodes, and this will be discussed later in the meeting.

2.10 Darcy Walberg to 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".
Done. To be discussed later on the agenda

2.11 Bettina Mueller to draft a response on behalf of the working group, and circulate it to the co-chairs.
Done. Bettina included this response as the memo from Donna Tingley (see item 4 in meeting 2 minutes).

2.12 Markus Kellerhals will respond to whether stakeholders will have opportunity for input to the 2008 Science Assessment.
Done. Markus raised the issue with the individual leading the science assessment, and she agreed there should be stakeholder input, but nothing concrete has been planned yet.

2 Actions to Date Under the Framework

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

Summary of Recommendations, Status of Implementation
NOTE: The following table is a continuing record of the status of recommendations. Updates provided at this meeting for actions not yet completed are indicated in SMALL CAPS.

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	*The PM & Ozone Management Framework was accepted and approved by the CASA board at the September 2003 board meeting.*
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 PM2.5 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 *Alberta Environment to conduct the initial analysis of PM and O_3 data.* • *This analysis is complete and was provided at the March 2005 Board meeting.*
	TASK 2 *Alberta Environment to identify episodes that exceeded the trigger levels identified by the CASA PM/O_3 framework.* • *This analysis is complete and was provided in a status report at the March 2005 CASA board meeting.*
	TASK 3 *Alberta Environment to refine/simplify the procedure to back out background, natural and trans-boundary $PM_{2.5}$ and O_3 for episodes that exceeded the trigger levels.* • *Simplified were developed, documented and applied to the data during the assessments.*
	TASK 4 *Alberta Environment to back out background, natural and trans-boundary $PM_{2.5}$ and O_3 for episodes that exceeded the trigger levels.* • *Assess days/episodes with ambient concentrations of $PM_{2.5}$ and O_3 that were higher than the Canada-Wide Standards (CWS) exceedance levels. Complete for the 2001-2003 assessment.* • *Apply simplified procedures to assess days/episodes with ambient concentrations of $PM_{2.5}$ and O_3 that were higher than the CASA planning and surveillance triggers. Complete for the 2001-2003 assessment.* • THIS TASK IS NOW MORE OR LESS COMPLETE FOR THE 2002-2004 ASSESSMENT.
	TASK 5 *Alberta Environment to assign action levels to $PM_{2.5}$ and O_3 episodes.* • *Repeat analysis of ambient $PM_{2.5}$ and O_3 ambient data after the episodes caused by background, natural and trans-boundary influences have been removed. Complete for 2001-2003 assessment.* • THIS TASK IS NOT YET COMPLETE FOR THE 2002-2004 ASSESSMENT, BUT IS EXPECTED TO BE DONE BY THE END OF SEPTEMBER 2006.
	TASK 6 *Alberta Environment to develop an automated procedure to calculate the $PM_{2.5}$ and O_3 metrics.* • *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.*

	TASK 7 *Alberta Environment to produce an annual $PM_{2.5}$ and O_3 assessment report.* • *A short, 1-2 page written report to the CASA board and airshed zones, summarizing the outcomes of the $PM_{2.5}$ and O_3 ambient levels analysis will be complete by September 15, 2005.* COMPLETE, REPORT TO BOARD IN SEPTEMBER. • *A detailed report documenting the procedure and rationale used for the assessment* WAS COMPLETED BY OCTOBER 31, 2005. • *A non-technical document intended for a public audience will be produced with assistance from CASA administration and airshed zones.* A NON-TECHNICAL DRAFT DOCUMENT HAS BEEN PREPARED TO ACCOMPANY THE LETTER TO INDUSTRIES AND MUNICIPALITIES WHEN THE RESULTS ARE ANNOUNCED, BUT THIS LETTER HAS NOT YET HAD A WIDE REVIEW.
1.c.	**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
Status	*Alberta Environment will initiate the review involving interested stakeholders and members of the public as recommended, in 2007 after the 2005 assessment.*
2.	**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 *Guidance Document for Achievement Determination*. This work should involve Environment Canada and interested stakeholders, and should be completed by the end of 2004.
Status	*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 O_3 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 O_3 levels higher than the surveillance/planning triggers into areas that are impacted by the same $PM_{2.5}$ (e.g. forest fires) or O_3 (high background) mechanisms; and (3) real-time analysis of $PM_{2.5}$ and O_3 data as events occur. The simplified mechanism was documented and circulated for comment to the former PM/O_3 working group members. Further discussion on the simplified mechanism is required.* THE PROCEDURE WAS PRESENTED TO A SMALL GROUP OF STAKEHOLDERS AND AENV EXPLAINED THE CRITERIA USED TO BACK OUT EPISODES. THE FOLLOW-UP WAS THAT AENV WOULD GO THROUGH SOME EPISODES TO SHOW HOW THEY ACTUALLY APPLIED THE SIMPLIFIED MECHANISMS. A SECOND MEETINGWILL BE HELD WITH INTERESTED MEMBERS BEFORE THE NEXT PM AND O3 TEAM MEETING, LIKELY IN THE FALL. AENV IS ALSO LOOKING AT THEIR FLOWCHART AND BUILDING IN ALL THE THINGS THE DEPARTMENT ACTUALLY DOES SO EVERYBODY KNOWS THE SCIENTIFIC THINKING BEHIND EACH DECISION.
3.	**Alberta Ambient Air Quality Guideline** It is recommended that Alberta Environment decide whether to establish new Ambient Air Quality Guidelines for PM2.5 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.

Status	*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* O_3*.* AN AGENDA ITEM FOR MEETING 3 LOOKS AT THE RELATIONSHIP BETWEEN AENV AQOS AND THE PM AND O3 FRAMEWORK.
4.	**CWS Coarse Fraction Standard** 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: (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. (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.
Status	*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.*
5.	**Background PM or Ozone Originating Outside of North America** 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.
Status	*JAICC no longer exists. Environment Canada and Alberta Environment were asked to bring this action forward to the AMC.* *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* PM_{10} *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.* *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.* *To investigate this transport, there have been several airborne observational studies, as well as the establishment of several high elevation monitoring sites in 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.* *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. *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.*
6.	**MERS/MERAF** 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.
Status	*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.*
7.	**Monitoring** 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.
Status	*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 O_3 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 O_3 in areas of the province that exceeded planning and surveillance triggers.* A CASA PROJECT TEAM IS LOOKING AT AN AMBIENT MONITORING STRATEGIC PLAN (AMSP) FOR ALBERTA AND THE TEAM IS AWARE OF THE OUTCOME OF THE PM AND O3 ASSESSMENT. CASA FRAMEWORKS ARE IMPORTANT CONSIDERATIONS IN THE AMSP UPDATE, BUT THE LOCATIONS FOR MONITORING HAVE NOT YET BEEN DISCUSSED. THE PM AND O3 ASSESSMENTS WILL BE ONE CRITERION FOR DECIDING WHERE MONITORING WILL BE DONE.
8.	**Alberta Guidance Document** a) Adoption It is recommended that the *Guidance Document for the Management of Fine Particulates and Ozone in Alberta* be accepted and approved for use in Alberta. b) Availability It is recommended that the *Guidance Document for the Management of Fine Particulates and Ozone in Alberta* 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 Guidance Document on request. c) Future Reviews It is recommended that the *Guidance Document for the Management of Fine Particulates and Ozone in Alberta* 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.
Status	*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.
9.	**Communications with Stakeholders and the Public** 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.
Status	*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.* THE INITIAL NOTIFICATION BEEN COMPLETED AND A COMMUNICATIONS STRATEGY MEETING WAS HELD BETWEEN CASA AND AENV (SEE AGEND ITEM 2D).
10	**Science and Analysis Recommendations**
10.a.	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.
Status	*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-model" effects. The entire year will be modelled, allowing evaluation of both summertime ozone episodes and wintertime PM episodes.* *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.* *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.* ENVIRONMENT CANADA MADE PRESENTATIONS AT THIS MEETING FOR A, B AND C

10.b.	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.
Status	*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.* *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.* *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.*
10.c.	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.
Status	*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.*
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	*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 O_3 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 O_3 assessments while also providing information that can be used to identify sources and to take the appropriate actions in exceedances areas.*
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	*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.* ENVIRONMENT CANADA HAS DONE SOME WORK. THE 2002 CAC INVENTORY IS OUT, AND THEY ARE WORKING ON THE 2003 INVENTORY. BETTER EMISSIONS DATA ARE NEEDED AND IT MAY BE DESIRABLE TO DO ANOTHER INVENTORY SIMILAR TO THAT DONE BY CHEMINFO.
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: i) Conducting further research on source apportionment to ensure that: − 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	*Complete. Alberta Environment will provide an update presentation to the CASA board at their September 2005 meeting.*
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	*Completed in September 2004.*

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 PM2.5 and O3 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:* *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.* THREE REPORTS ARE NEEDED AS PER THE ACTION. 1. A SHORT DRAFT WENT TO THE CASA BOARD IN 2005; IT WILL BE UPDATED AND FINALIZED IN THE NEXT COUPLE OF MONTHS AND RELEASED THROUGH AENV'S PROCESS BY THE END OF THE SUMMER. 3. THE IMPLEMENTER FOR THE THIRD REPORT IS NOT CLEAR AND THIS REPORT HAS NOT BEEN ADDRESSED AT ALL.
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.

No.	**Other Reporting Requirements** **(From: Guidance Document for the Management of Fine PM and O_3 in Alberta (2003))**
Status	*NOT COMPLETE* *The format will be part of the 06 CWS comprehensive report. The CWS report is a CCME requirement.*
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*

Action3.2: Bob Myrick will clarify who is the implementer for the third report in recommendation G 10 1.

b) Update on the formation of the Edmonton and Calgary Airsheds

Lisa Strosher reported that the Calgary Regional Airshed Zone (CRAZ) is finalizing its bylaws and will then apply under the Societies' Act to incorporate; they are aiming for the end of June. Consultants have been hired to do a feasibility assessment that will cover proposed boundaries, funding formulas, a conceptual air quality monitoring program for the zone, and an overall assessment of the cost of running the zone. The feasibility report is expected by the end of September. CRAZ will take the results to all stakeholders around the time of the first AGM to help them decide on participation. The feasibility study will look at potential members, and meetings are now being set up with key stakeholders identified to date. Lisa and Donna Tingley presented to Calgary's Environmental Advisory Committee to explain zones and why Calgary should participate.

Stan Novakowksi noted that the City of Calgary has completed a review on air quality and will submit a report to a Council Committee on June 28 and it will then go to Council. The City is committed to working with the airshed. Once information is available on funding formulas and other details, this will be taken back to Council. It is likely that the City will join the airshed.

The Alberta Central Airshed Society, which includes the City of Edmonton, is signing its incorporation papers on June 16, 2006. They have been working with both the Strathcona Industrial Association and the Fort Air Partnership.

c) Framework wording regarding areas that fall one year above and the next below the planning threshold

This question relates to what happens if an area is above the threshold in one three-year assessment and below in the next one. The framework was designed to be flexible at different levels, elevating the level of stringency to deal with issues. Members were referred to the goals of the management plan (section 2.4.2.3 in the guidance document and section 3.4.2.3 in the framework), which addresses this topic. This section already provides guidance on the matter. Contextual factors and trend direction should be considered, and it may not be necessary to do more than maintain surveillance. Some members wondered if it is possible to say anything about a trend from 2001-03 to 2002-04. Also, weather could affect ozone levels in a way that has nothing to do with emissions.

It was noted that the framework is intended to be a continuous process. It does not mean that you go from action to inaction. At lower levels, actions may be the same as under surveillance. For ozone, status may not always be as clear for some areas as for others, and the framework has some flexibility for borderline assessments.

d) Communication of the Particulate Matter and Ozone Assessment

Bob Myrick made a presentation on communicating the PM and O_3 assessment. The results of the assessment have been communicated informally to the CASA board and other industry associations. Major stakeholders in the CMAs should be aware of the results, and know that Edmonton and Calgary are in the management plan level. However, there is a need for formal

communications. AENV has drafted a letter from the Deputy Minister to mayors and reeves in the CMAs and to industries that have air monitoring requirements in their AENV approvals. AENV managers reviewed the letter and felt that additional information should be provided with it to explain the results and next steps, especially for small municipalities and smaller industries. There is also a concern that many smaller emitters who may play a role are being missed.

Team members noted the following points:

- Members agreed that the letter and supplementary information should go to all stakeholders who can be identified (in addition to municipalities and approval holders), and that a media release should be issued. The expectation is that the transportation sector will fall under the responsibilities of municipalities. It was suggested that Alberta Transportation, as the issuer of vehicle registrations, should also be advised, as well as the railways.
- AENV hopes that after the June CASA board meeting, there will be clear direction. CASA and AENV met in April to develop a strategy for a media release, but it hinges on notification being given by AENV. Once AENV decides how to do the notification, there will be a joint media release from AENV and CASA. Representatives from each sector would review the media release for CASA. Donna Tingley and Peter Watson will meet before the CASA board meeting to discuss this matter.
- "The clock starts ticking" on the two-year timeline when the letter goes out. AENV would like to get the letter sent and arrange follow up meetings with stakeholders as soon as possible, but cannot commit to precise timing. It is uncertain how these meetings will be arranged. The Edmonton CMA includes 75 industries and 24 municipalities. The Calgary CMA includes 50 industries and 14 municipalities. The letter could include contact details for the regional airshed zones and AENV could communicate the assessment information to the zones so they are up to date.
- The communication package does not indicate what the various contributions are to the problem, but this is something the management plan will address.

Action 3.3: Bob Myrick will let the team know before the June CASA board meeting if AENV is not ready to send out the notification letter and media release; if support from the CASA board is needed, this can be raised with the board.

Action 3.4: Bob Myrick will take forward to AENV a) the suggestion of communicating to all industries in the notification areas, and b) the need to develop a plan for reaching the transportation sector.

e) Process for the development and implementation of the management plan

Bob Myrick continued with the presentation on developing and implementing a management plan; proposing four options:

- AENV initiates the first meeting and kicks off a consensus-based stakeholder group to develop a management plan. AENV would be an equal partner at the table.
- AENV meets with affected main stakeholder(s) (likely Edmonton and Calgary) and encourages them to host the first stakeholder meeting. This would address AENV's concern to not be seen as the driving force but as an equal participant. AENV may contribute money or facilitation services to assist the municipality.
- AENV asks CASA to host the first affected stakeholder meeting.
- AENV enquires if Calgary and Edmonton airsheds can be sped up so those groups can take on the role of affected stakeholder. FAP and WCAS would also be involved in the Edmonton area.

Team members noted the following points:

- The framework identifies AENV and airshed zones as the options to lead the process. The Calgary and Edmonton airsheds should be speeded up with whatever assistance is needed from AENV so they can take on this work, since it would likely take longer to start up with a new group.

- The Calgary zone has an interim board and is of the view that the management plan should be developed at the same time as the zone is forming. However it does not think that this is a task that the interim board could take on at this time. The recommendation is that the process use as many of the same people as possible.
- The framework provides direction (page 34), which is similar to option 1.

The team agreed to recommend that AENV follow the recommendations of the framework: identify the key stakeholders, notify them and invite them to develop a management plan as described in the framework. Where zones exist, they will be involved, and zones in formation will also be asked to participate.

3 Possible AENV Actions if the Framework is not adhered to

Bob Myrick concluded his presentation by looking at potential AENV action if the framework is not adhered to. At this point AENV is not sure what the actions would be if stakeholders do not adhere to the framework.
It was stated that the framework provides for some flexibility. For example, if after two years of work, stakeholders needed a couple more months to complete their plan, AENV would be flexible. Plan development is likely to be led by the Cities of Edmonton and Calgary, but all stakeholders in the CMAs must work together. AENV has some tools available, such as requiring mandatory action through controls on industry, using influence and persuasion on other levels of government (municipalities and federal government) and other provincial government departments, and the use of ambient air quality objectives.

Team members noted the following points:

- The framework says that if stakeholders don't do a management plan, AENV will do it. All available tools should be identified and considered.
- AENV noted that the framework says they "may" do a management plan, but would need buy-in from everyone.
- Discussion with the original team co-chair indicated that the word "may" was used to reflect the situation whereby a group may already be working on a management plan and hasn't completed it after two years. This would give AENV some discretion about taking action or not, and gives flexibility in terms of timing. There was also the desire that the plan be done collaboratively with the backstop that AENV could step in with a variety of regulatory and other tools at its disposal. The original team did not want to be specific because they intended that stakeholders would do the framework collaboratively.

4 Presentation on the Relationship between the Ambient Air Quality objectives and the PM and O3 Framework

Long Fu was unable to attend, so this presentation was deferred to the next meeting.

5 Updates

a) 2001-2003 assessment report
Andrew Clayton reviewed the results of ozone modeling for summer 2002 for the Red Deer area. Several high ozone days put Red Deer over the planning trigger, which seemed unlikely for a city of that size, so Environment Canada did four model runs to determine the influences. Andrew reviewed the calculations and the dates that were backed out. The three-year average for 2001-03 was 56.8 ppb for Red Deer, putting it below the planning trigger.

Calculations for 2001-2003:
2001: 55.3 ppb
2002: 56.9 ppb

2003: 58.3 ppb

Team members noted the following points:

- This doesn't demonstrate if the emissions are anthropogenic or not, or transboundary or not. It simply shows that the small area around Red Deer likely contributes a small portion to exceedances.
- It looks like Edmonton is contributing to Red Deer's exceedances, but anthropogenic emissions from within the province cannot be backed out.
- If Edmonton develops a management plan, Red Deer's emissions may or may not drop.
- It appears that Red Deer can't do much to address the situation, other than influencing the Edmonton and Calgary CMAs. But this analysis goes beyond what's in the guidance document for backing out procedures, but is a useful undertaking for the management plan action level information gathering stage.
- The Alberta guidance document should be followed, and AENV needs to finalize the assessment.

Action 3.5: AENV review the analysis and revisit whether Red Deer is above or below the planning trigger by June 20, the date of the next PAMZ board meeting.

b) 2002-2004 assessment report

AENV did not have the numbers for this period available at the meeting, but advised that there were no surprises from the draft circulated at the last meeting. Bob Myrick noted that they plan to have this assessment done by the end of September, and the 2003-05 assessment done by the end of December 2006.

c) 2003-2005 report to the CCME

Each jurisdiction is to report on its CWS assessment by September 30, 2006. These reports include the same data for the whole country for 2003-2005. The achievement year is 2010. The rest of Canada is not going through the backing out process that Alberta is. The jurisdictional reports will contain the real numbers and AENV will have to include the results of earlier assessments as well as the raw and backed out data in its report to the CCME. Alberta's report will explain its process and the CASA process. It was suggested that these reports should also describe the CWS implementation process in each province, not just the results.

Action 3.6: Bob Myrick will enquire if he can circulate a draft of Alberta's report to the team before submitting it to the CCME.

6 Report to the CASA Board

Markus Kellerhals and Dave Fox made a detailed presentation on the modeling system, tools, emissions, model performance and results; a similar presentation will be given to the CASA board at its June meeting. This project was the response to the 2003 CASA recommendation on modeling ozone and PM. The initial focus was ozone as it was regarded as a higher priority, and the model performance is better for ozone than PM. The report will be released in July 2006. The information will be shared with other stakeholders including the NOx/SOx Working Group, and a technical meeting with interested stakeholders will be held in fall 2006 to discuss results and next steps.

Kristina Friesen reported on the use of Be-7 and stratospheric monitoring at Harlech.

Action 3.7: Markus and Dave will forward copies of the Environment Canada presentations to Bettina for distribution to the team.

7 Next Meeting

The next meeting will be October 25 in Edmonton.

The meeting adjourned at 3:30 pm.