

# Final Minutes



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

## Performance Measures Subcommittee Meeting #45

Date: Wednesday, December 19, 2007

Time: 9:30 to 12:00pm

Place: CASA, Edmonton

### *In attendance:*

Name	Organization
Kerra Chomlak	CASA
Andrew Clayton	Alberta Environment
Mary Griffiths	The Pembina Institute
Bob Myrick	Alberta Environment
Carmen Rieder	CASA
Ted Stoner	Canadian Petroleum Products Institute

### *Regrets:*

Brian Free	CASA
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### Action Items

Task	Who	When
<b>41.6</b> The CASA Handbook will be updated, based on our experience with the calculations for 2007.	Brian Free	<i>Ongoing</i>
<b>42.2:</b> An explanation of the 2006 decline in PM 1c, the percentage of electricity from renewable sources, shall be obtained for the CASA performance measures report.	Brian Free	<i>Carried forward.</i>
<b>43.5:</b> Raymond Wong will be given the relevant section of the Performance Measures Methodology Handbook, so that he can add an explanation about his statistical analysis method.	Brian Free	<i>Ongoing</i>
<b>43.6:</b> The final graphs of the air quality and emissions trends (PM1) will be prepared.	Carmen Rieder	<i>By next meeting</i>
<b>43.8:</b> The calculation for the human health effects indicator will be checked against the Methodology Handbook.	Brian Free	<i>By next meeting</i>
<b>44.3:</b> An explanation of the influence of precipitation levels on acid deposition readings will be prepared.	Bob Myrick	<i>By next meeting</i>
<b>44.4:</b> An explanation will be sought for the lack of data on acid deposition from the Fort McMurray station after 2002.	Bob Myrick	<i>By next meeting</i>

<b>Task</b>	<b>Who</b>	<b>When</b>
<b>45.1:</b> Ask Raymond Wong to suggest potential reasons why ozone levels in Violet Grove have decreased and why analysis did not find the rise in ozone at Fort McKay to be statistically significant.	Bob Myrick	By next meeting
<b>45.2:</b> Brian will revise Bob's ambient monitoring indicator write-up as required and distribute it to the team for approval.	Brian Free	ASAP
<b>45.3:</b> Prepare the calculations and write-up for the ecological effect monitoring indicator (part of performance indicator #2) and circulate it to the team.	Brian Free	ASAP
<b>45.4:</b> Advise the data issues group, electricity project team, PM & ozone team and the human & animal health team that their reports on the implementation of 2003 recommendations must be submitted by 15Jan08.	Brian Free	ASAP
<b>45.5:</b> Compile the reports on the implementation of 2003 recommendations by various groups and distribute the compilation to the team.	Brian Free Carmen Rieder	After 15Jan08
<b>45.6:</b> The team is to review the reports on the implementation of 2003 recommendations by various groups at the next meeting.	All	At next meeting
<b>45.7:</b> Validate the 2007 Stakeholder Satisfaction Survey before 15Jan08 and distribute it to the subcommittee for discussion at the next meeting.	Brian Free Sharon Hawrelak	15Jan08
<b>45.8:</b> Prepare a calculation to show what would have been a reasonable sample size for the stakeholder survey distribution.	Sharon Hawrelak	15Jan08
<b>45.9:</b> Amend the CASA Performance Measures Handbook for Indicators 4 to include the new stakeholder satisfaction survey analysis approaches.	Sharon Hawrelak	Feb08
<b>45.10:</b> Ensure that the potential reasons for low survey response are included in the annual report.	Brian Free, Sharon Hawrelak, Carmen Rieder	By next meeting
<b>45.11:</b> Clarify if indicator 1c is still on the workplan.	Kerra Chomlak	By next meeting
<b>45.12:</b> Prepare a draft of the report for	Carmen Rieder	Before next

Task	Who	When
discussion at the next meeting.		meeting
<b>45.13:</b> Send an electronic copy of the workplan to Carmen.	Brian Free	ASAP
<b>45.15:</b> Set the date for the next meeting after discussion with absent members.	Kerra Chomlak	ASAP

Meeting called to order at 9:35AM.

## 1. Introductions

## 2. Administration

- a. The agenda and meeting objective were approved as drafted with the following changes:
  - Item 2d – Subcommittee chairs – was added to the agenda
  - The agenda title should read “Meeting #45” (not #44)
  - The date and time should be Wednesday, December 19, 2007, 9:30 – 12:00 PM
  - Remove the “4” from Agenda item 4 (i.e. remove the underlined 4 in the agenda statement “Review calculations of 2007 performance measures #2 – 4 ...”)
- b. The minutes of the last meeting were approved as drafted with the following changes:
  - Mary’s edits were incorporated by Brian and distributed to the subcommittee prior to today’s meeting. All agreed to these changes.
  - The spelling of Bob’s last name was corrected on page 1.
  - Delete “and daughter” from the list of attendees
- c. Action items were reviewed. Updates to the action items are indicated below in italics following each item.

Task	Who	When
<b>41.5</b> Calculations for the 2007 performance measures will be assembled for the Subcommittee’s consideration.	Bob Myrick, Brian Free	<i>Done.</i>
<i>The meaning of this action item is unclear. By the end of the meeting today, outstanding information will be identified thus all agreed that this action item will be considered completed.</i>		
<b>41.6</b> The CASA Handbook will be updated, based on our experience with the calculations for 2007.	Brian Free	<i>Ongoing</i>
<i>Brian has started the updates. Revised</i>		

<b>Task</b>	<b>Who</b>	<b>When</b>
<i>calculation methodology has been requested from Raymond Wong (see action item 43.5). Also, Sharon will be updating the handbook relating to performance measure 4 (see action item 45.9).</i>		
<b>42.2:</b> An explanation of the 2006 decline in PM 1c, the percentage of electricity from renewable sources, shall be obtained for the CASA performance measures report. <i>Brian is collecting more information.</i>	Brian Free	<i>Carried forward.</i>
<b>43.4:</b> For Performance Measure 1, a write-up of the statistically significant trends will be provided. <i>Presented at today's meeting (agenda item 3)</i>	Bob Myrick	<i>Done</i>
<b>43.5:</b> Raymond Wong will be given the relevant section of the Performance Measures Methodology Handbook, so that he can add an explanation about his statistical analysis method. <i>Brian has sent the section to Raymond. Raymond's write-up is pending.</i>	Brian Free	<i>Ongoing</i>
<b>43.6:</b> The final graphs of the air quality and emissions trends (PM1) will be prepared. <i>The graphs will be sent to Carmen for formatting.</i>	<del>Brian Free</del> Carmen Rieder	<i>By next meeting</i>
<b>43.8:</b> The calculation for the human health effects indicator will be checked against the Methodology Handbook. <i>Carried forward.</i>	Brian Free	<i>By next meeting</i>
<b>43.9:</b> The co-chairs of teams reporting in 2003 will be contacted to initiate the rating of their substantive recommendations. <i>Brian has contacted the co-chairs. Follow-up has been added as a new action item for today (see action item 45.4).</i>	Brian Free	<i>Done</i>
<b>43.10:</b> The approach taken with past stakeholder surveys will be reviewed as we prepare to analyze the 2007 survey results. <i>Done. Sharon will provide an update in Agenda item 6</i>	Brian Free	<i>Done</i>

<b>Task</b>	<b>Who</b>	<b>When</b>
<b>44.1:</b> The annual average concentration for ozone will be checked for statistical significance.	Bob Myrick	<i>Done</i>
<i>Done. Ozone results will be discussed as part of Agenda item 3.</i>		
<b>44.2:</b> Consistent scales will be used for graphs of each parameter.	Brian Free	<i>Done</i>
<i>Done. Refer to the graphs that were presented as part of Agenda item 3 today.</i>		
<b>44.3:</b> An explanation of the influence of precipitation levels on acid deposition readings will be prepared.	Bob Myrick	<i>By next meeting</i>
<i>Carried forward</i>		
<b>44.4:</b> An explanation will be sought for the lack of data on acid deposition from the Fort McMurray station after 2002.	Bob Myrick	<i>By next meeting</i>
<i>Carried forward</i>		
<b>44.5:</b> A write-up for PM 1a regarding exceedances will be prepared	Bob Myrick	<i>Done</i>
<i>Done &amp; provided</i>		
<b>44.6:</b> A write-up for PM 1b regarding emissions will be prepared	Bob Myrick	<i>Done</i>
<i>Done &amp; provided</i>		
<b>44.7:</b> Change in Criteria Air Contaminants and mercury emissions from the electricity sector needs to be graphed.	Bob Myrick	<i>Done</i>
<i>Done &amp; provided</i>		
<b>44.8:</b> Writer Carmen Rieder will be asked if she can assemble the 2007 Performance Measures report.	Brian Free	<i>Done</i>
<i>Done</i>		

d. Subcommittee chairs:

- All agreed that rotating the responsibility to chair the meetings is acceptable. If a member has a significant amount of information to present at a meeting and is scheduled to be chair, a substitution of chairs can be made to allow the member to focus on his/her tasks.

### **3. Review calculations of 2007 PM #1a and b**

*Review of AENV's charts for NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, ozone, H<sub>2</sub>S & benzene*

Changes made to the charts since the last meeting include:

- All data for a given substance have been graphed with the same y axis

- The ozone concentration units have been corrected to ppm (previously mislabeled as ppb)
- No changes were made to the bar graphs
- For the emissions graphs, “from the electricity generation sector” was added to the titles as this is the source of the data
- No changes were made to the percent compliance

#### *Preparing black and white-compatible graphs versus color graphs*

Discussion arose as to whether the graphs should be compatible with black and white printing; that is, use patterned bars and lines in addition to colors. It was pointed out that line graphs with symbols would become complicated if more than 3 lines were depicted and some of these color graphs would need to be split into several black and white-compatible graphs. Also, the annual report posted online will be in color. Since color hardcopies will be given to board members and members of this subcommittee, it was agreed that the graphs could remain in color format.

#### *Review of AENV’s text describing the graphs*

Changes made to the write-up since the last meeting include:

- A section entitled “Exceedances” was added to page 4 of the document
- A section called “Emissions from Electricity Generation” was also added to page 4.
  - Mercury emissions: Discussion arose around the finding that the mercury emissions increase from 2000 – 2005 was not statistically significant. The analysis was non-parametric; however, it was suggested that a parametric approach might show statistical significance. Also, the source of the mercury data is NPRI reports and, as a result, there is no CAC projection for mercury.
  - Other sectors (besides energy generation): Information on emissions from other sectors was added in this version, however the team agreed to remove it since the data in the graphs only reflects the energy generation sector.

#### *Ozone discussion – follow-up from last meeting*

- Hardcopies of the new ozone graphs were distributed to the group
- Several questions arose from review of the graphs:
  - Why was a statistically significant drop in ozone observed for Violet Grove?
  - Why is the peak in ozone for Fort McKay not statistically significant?

**Action item 45.1: Bob will ask Raymond Wong to suggest potential reasons why ozone levels in Violet Grove have decreased and why analysis did not find the rise in ozone at Fort McKay to be statistically significant.**

#### *Hydrogen sulphide*

It is important to note that although the increase in H<sub>2</sub>S in Fort McMurray is not yet statistically significant, if the increase continues at the existing rate, H<sub>2</sub>S emissions will soon be significant.

#### **4. Review calculations of 2007 performance measures #2: Capability to measure air-quality effects**

##### *Ambient monitoring indicator*

Bob recalls writing this up several meetings ago and sending it to Brian.

**Action item 45.2: Brian will revise (with reference to Meeting #43 minutes, section 5) Bob's ambient monitoring indicator write-up as required and distribute it to the team for approval.**

##### *Ecological effects monitoring indicator*

The handbook indicates what should be reported on for ecological effects. Brian is to do the calculations.

**Action item 45.3: Brian will prepare the calculations and write-up for the ecological effect monitoring indicator and circulate it to the team.**

##### *Overall human health monitoring indicator*

Information is to be provided by Alberta Health and Wellness. Outstanding action item 43.8 also refers to this indicator.

#### **5. Review calculations of 2007 performance measures #3: Implementation of 2003 recommendations**

Completed action item 43.9 indicates that the data issues group, electricity project team, PM & ozone team and the human & animal health team have been contacted. The next step is to have these reports submitted as soon as possible.

**Action item 45.4: Brian will advise the data issues group, electricity project team, PM & ozone team and the human & animal health team that their reports on the implementation of 2003 recommendations must be submitted to him by 15Jan08.**

**Action item 45.5: Brian will compile the reports on the implementation of 2003 recommendations by various groups and distribute the compilation to the team. Carmen will assist as required.**

Once all of the reports are compiled, this subcommittee will review and determine how the material is to be presented in the annual report.

**Action item 45.6: The team is to review the reports on the implementation of 2003 recommendations by various groups at the next meeting.**

## **6. Review calculations of 2007 performance measures #4: Stakeholder satisfaction survey**

### *Status of the survey analysis*

Sharon distributed hardcopies of the CASA 2007 Stakeholders Satisfaction Survey. Analysis of the survey must be standardized to the last survey conducted in 2003. Some of the issues associated with the standardization are:

- The 2003 survey used a 7-point scale while the 2007 survey was done with a 5-point scale. Sharon will be contacting the population research lab for information on how best to conduct this comparison.
- The 2003 survey was done over 1 year while the 2007 survey was conducted over 3 years.
- The 2003 survey disqualified respondents who were not involved with CASA for the year preceding the survey. These individuals have not yet been removed from the 2007 results pool.
- The 2003 survey took non-responses into account. The 2007 survey was sent to 400 individuals with 85 responses received. The non-response calculation for 2007 will have to consider if distributing 400 surveys and expecting to receive them all back was reasonable.

Sharon and Brian will review the entire survey in January and cross-check it with 2003 survey. Once completed, this subgroup will need to approve the specific survey questions that pertain to this subgroup and the analysis methodology.

**Action item 45.7: Brian and Sharon will validate the 2007 Stakeholder Satisfaction Survey before 15Jan08 and distribute it to the subcommittee for discussion at the next meeting.**

### *Questions*

- Do we need statistical analysis for the survey trends over time (for questions that are the same between the surveys)?
  - Cannot do statistical analysis on only 4 years of data. As a result, the data will be presented in a bar graph format without statistics.
- Can a calculation be prepared to account for non-respondents and a potentially too large sample size for the survey distribution?

**Action item 45.8: Sharon will prepare a calculation to show what would have been a reasonable sample size for the stakeholder survey distribution.**



- Who will amend the CASA Performance Measures Handbook to include the new survey analyses?

**Action item 45.9: Sharon will amend the CASA Performance Measures Handbook for Indicators 4 to include the new stakeholder satisfaction survey analysis approaches.**

*Factors thought to contribute to low stakeholder survey response*

Ideas were brought forward as to why survey response as low:

- CASA did not consistently contact board members that did not respond; however, contact was deliberate avoided in order to maintain confidentiality of the respondents. Ultimately, it should be noted that survey follow-up was less.
- “Survey fatigue” may have played a role
- Survey was done electronically, which is different than previous years
- May reflect a decrease in satisfaction

Sharon and Brian may uncover other reasons as they analyze the survey data.

**Action item 45.10: Sharon, Brian and Carmen will ensure that the potential reasons for low survey response are included in the annual report.**

## **7. Subcommittee Work Plan**

The subcommittee work plan was reviewed, resulting in the following action items:

**Action item 45.11: Kerra will clarify if indicator 1c is still on the workplan.**

**Action item 45.12: Carmen will prepare a draft of the report for discussion at the next meeting.**

**Action item 45.13: Brian will send an electronic copy of the workplan to Carmen.**

**Action item 45.14: Carmen will revise dates on the workplan so that it is ready to be used for next year’s review.**

## **8. Next meeting**

The next possible meeting dates for those present are T29Jan, W30Jan, R31Jan, M4Feb, and T5Feb. Kerra will check these dates with absent members.

**Action item 45.15: Kerra will set the date for the next meeting after discussion with absent members.**

Adjourned at 11:50 AM.