



## WCAS General Meeting

### Meeting Notes

September 23, 2005

10:30 a.m. – 4:00 p.m.

Main Board Room  
Penn West Building, 50<sup>th</sup> Avenue West  
Drayton Valley, AB

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#### In Attendance:

Cecil Anderson	Pembina Agriculture Protection Association
Dave Stewart	Talisman Energy
Adam Stokowski	David Thompson Regional Health Authority
Gwen Wood	EUB
Audrey Kelto	Leduc County
Mary Griffiths	Pembina Institute of Appropriate Development
Robert Kitching	Brazeau County
Rick Phaneuf	Alberta Environment
Mike Woods	Weyerhaeuser Ltd.
David Brand	Luscar Limited
Hercules Georgiadis	Hinton Pulp
Jim Bolton	TransAlta

#### WCAS:

Bob Scotten	Executive Director
Barbara Johnson	Environmental Engineer
Greg Swain	Senior Technologist

#### Special Guests:

Dick Purveen	University of Alberta, Breton Plots
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#### Absent with Regrets:

Jason Schulz	EPCOR
Steven Probert	Capital Health
Larry Williams	Alberta Environment

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### ACTION ITEMS

**Action Item 1:** Bob to forward a letter of gratitude to Greg Gabert for his past contributions to the WCAS.

**Action Item 2:** Barb to meet with Dave to discuss WCAS financials.

### ONGOING ACTION ITEMS

**Ongoing Item 1:** Bob to provide a formal letter to Alberta Environment outlining the limitations of accessibility concerning the Athabasca Lookout location.

**Ongoing Item 2:** Bob to follow up on the incorporation of a small region along WCAS boundaries with Clean Air Strategic Alliance (CASA), and the PAMZ.

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## 1. Welcome and Introductions

Cecil Anderson called the meeting to order at 10:45 a.m. Introductions were made and committee members welcomed.

## 2. Approval of June 2, 2005 Draft Minutes

The meeting notes of the June 2, 2005 meeting were accepted by consensus.

## 3. Review of the June 2, 2005 Action Items

**Action Item 1:** Bob to provide assurances that a minimum ten-year agreement on the land lease could be obtained and that no major developments are planned to occur in the vicinity with respect to the Athabasca Lookout as the new background station location. **Complete:** Bob confirmed that there were no major developments planned within the Athabasca Lookout vicinity.

**Action Item 2:** Bob to provide a formal letter to Alberta Environment outlining the limitations of accessibility concerning the Athabasca Lookout location. **Ongoing:** Bob explained that due to the Telus strike, development of the Athabasca Lookout site has been pending.

**Action Item 3:** Steven to provide Bob with details concerning WCAS communications through municipal publications. **Complete:** Bob reported that Steven provided details for municipal publications.

**Action Item 4:** Bob to prepare correspondence to Ponoka County asking if there are any objections to the incorporation of a small region along WCAS boundaries not claimed by other Airshed's. Bob was also asked to copy the document to Alberta Environment, Clean Air Strategic Alliance (CASA), and the PAMZ. **Ongoing:** Bob reported that he contacted the Ponoka County assistant administrator and it appears that the Parkland Airshed Management Zone is to be approached on this matter. Bob advises that CASA will inform him of the developments with this issue.

## 4. Review of Financial Statements

Dave Stewart was welcomed as the new WCAS Treasurer replacing Greg Gabert. Bob indicated that a letter of gratitude on behalf of the WCAS Board for all Greg's past dedication would be forwarded.

Bob circulated a Statement of Revenue and Expenditures as at August 31, 2005. (*Attachment A & B*). The statements indicated that actual expenditures were on line with budget figures with the exception of insurance costs and unbudgeted contributions to trending analysis undertaken by Dr. Warren Kindzierski. Barb informed members that collections of accounts were also in line with previous years.

Next, Bob presented 2006 Draft Budgets (*Attachment C & D*) for Board consideration. Bob indicated that some increases over last years budget included expenditure in areas of accounting and legal fees due to the additional set of books required for tracking purposes of the utility companies activities, increased costs associated with insurance coverage, a new line item for grants or donations, an increase in honorarium costs for cooperative land use, and increases in the contractors costs to reflect a three percent cost of living increase. In addition, Bob asked the Board to consider compensating the technologists for the rising costs of fuel. The Board agreed that 10K could be used in the upcoming year to cover off the increased costs to the contractors. It was further agreed that this item would be a separate line item on the 2006 Budget. The Board also agreed that fuel costs should be standardized to \$0.42 per kilometer for mileage.

Dave suggested that a budget be introduced for capital expenditures and that a five-year plan be prepared to address such concerns as equipment/building replacement. Barb agreed to meet with Dave to further discuss these issues.

**Action Item 1:** Bob to forward a letter of gratitude to Greg Gabert for his past contributions to the WCAS.

**Action Item 2:** Barb to meet with Dave to discuss WCAS financials.

## 5. Zone Manager's Report

### 5.1 Hightower Ridge Station Update

Bob reported that the most suitable site for the relocation of the Hightower Ridge appears to be the Athabasca Lookout location based on the observations of Alberta Environment representatives, Harry Benders, Bettina Mueller, and Dr. Kindzierski of the University of Alberta. Bob indicated that annual funding from the federal government could be used towards this station. Bob also informed members that the Telus strike has hindered the development of the location.

### 5.2 Weyerhaeuser Update

Mike Woods informed members that the TRS analyzer has been ordered and the expected arrival date would be in the month of October.

### 5.3 Communications Update

Bob reported that the Fall Newsletter was near completion and should be distributed within the next two weeks. Bob then informed members that development of a new WCAS website is in progress but near completion. Bob indicated that the internet programming necessary to make temperature data available to the radio station for future airing has been completed.

Bob indicated that presentations were made for TransAlta in June and the Leduc County in August.

### 5.4 Nisku Sour Drill Activities Update

A lengthy discussion ensued concerning the sour drill activities that are occurring and scheduled to occur in the Drayton Valley area. It was noted that there is much public concern amongst residents as to the impact of the oil field activity on health related issues. It was further noted that there are a number of interest groups that are making efforts to make oil companies responsible to the public. Barb reported that oil and gas producers have contacted WCAS with regards to monitoring H<sub>2</sub>S at the Violet Grove station. Board members agreed that a written proposal received by such companies would be considered.

## 6. Air Monitoring Update

### 6.1 Audit Results

Greg Swain reported the results of the June 2005 Alberta Environment Audit of the WCAS network to Board Members. Greg also circulated a summary of the issues that were addressed during the audit. (Attachment E).

Greg then answered questions asked by the Board concerning corrections that may be necessary due to the failure of an analyzer. Greg explained that in such cases the data is corrected back to last calibration data as proposed by the auditor.

## 6.2 Uptime Efficiencies, Exceedence Reports

Barb reported that uptime efficiencies for the WCAS network were 98.8, 99.5, and 98.5 percent for the months of June, July, and August, respectively. Barb explained that during the month of June acquisition problems at the Tomahawk station dropped uptime to 94 percent at this site.

Barb also reported that there were a number of exceedences over the summer with respect to the TRS parameter at the Hinton station. It was noted that 6 exceedences occurred in June, 1 in July, and 10 in August. Hercules addressed the Board explaining that exceedences were the result of dredging effluent ponds.

Board members wished to express their appreciation for the outstanding job the technologists have done as reflected in the stellar uptime efficiencies.

## 6.3 Data Request Updates

Barb reported the following requests for data during the months of July and August:

June 29 – Barb Logan of Axys requested 2004 monthly averages for all meteorological parameters at Violet Grove and Genesee.

July 26 – Ben Borys of EPCOR, requested hourly averages for wind data at the Genesee site three-day period in July for the purpose of investigating a work related incident.

August 9 – Richard Murray of Golder Associates requested site documentation for a number of stations.

August 16 – Dr. Warren Kindzierski requested 1998-2004 Hourly averages for Carrot Creek, 1996-2004 Tomahawk hourly averages for the purpose of trending analysis.

August 22 – Jonathon Robb of Alberta Health requested five minute averages for Meadows, Genesee, and Wagner for 2004.

August 29 – Claire McCauley of Axys asked for information, maps, and site documentation with respect to the passive networks.

September 12 – Jerry Navarro of TransAlta requested precipitation data for the Meadows and Powers station for 2004.

September 12 – Janine Ross of Alberta Environment requested site documentation for stations for the purpose of updating the Alberta Environment website.

## 7. Next Meeting

The next meeting date December 2, 2005.

The meeting ended at approximately 4:00 p.m.

# Attachment A

West Central Airshed Society  
 Statement of Revenue & Expenditures  
 As at August 31, 2005

	Year-to-Date			Total Budget For Year	Balance in Budget
	Actual	Budget	Variance		
<b>FUNDING</b>					
Budgeted Membership Fees	805,396			768,260	-37,136
Network Cost Sharing	535			535	0
Hinton Pulp Operations Agreement	14,352			14,352	0
<b>TOTAL FUNDING</b>	<b>820,283</b>			<b>783,147</b>	<b>-37,136</b>
Less: GST portion of Funding	-52,724			-50,295	2,429
<b>2005 Revenue</b>	<b>767,559</b>			<b>732,852</b>	<b>-34,707</b>
Adjustments - AEUB Correction					
Revenue: Interest Income	1,957				
Less: Estimated Non Collectibles				-40,452	-40,452
<b>FUNDING, NET OF GST</b>	<b>769,516</b>			<b>692,400</b>	<b>-77,116</b>
<b>OFFICE &amp; ADMINISTRATION</b>					
Administration Salaries	56,667	56,667	0	85,000	28,333
Temporary Administrative Assistant	960	1,667	707	2,500	1,540
Accounting & Legal	3,932	3,000	-932	3,000	-932
Bank & Credit Card Charges	707	667	-40	1,000	293
Bank Loan Interest	6,890	10,000	3,110	15,000	8,110
Honorarium & Board Expenses	977	6,000	5,023	9,000	8,023
Other Meeting Expenses	378	1,333	955	2,000	1,622
Website Maintenance & Development	2,573	4,667	2,094	7,000	4,427
Computer Software & Accessories	103	1,333	1,230	2,000	1,897
Communications Expense	11,421	20,000	8,579	30,000	18,579
Insurance	20,586	11,667	-8,919	17,500	-3,086
Office Equipment Rental	3,651	4,333	683	6,500	2,849
Office Rental	6,250	6,667	417	10,000	3,750
Office Supplies & Postage	2,589	2,667	78	4,000	1,411
Tel Fax & Internet	6,599	6,333	-266	9,500	2,901
Grants, Donations, & Contributions	17,500	0	-17,500	0	-17,500
Miscellaneous Expense	0	333	333	500	500
<b>TOTAL OFFICE &amp; ADMIN EXPENSES</b>	<b>141,782</b>	<b>137,333</b>	<b>-4,449</b>	<b>204,500</b>	<b>62,718</b>
<b>AMBIENT AIR MONITORING</b>					
Utilities Expense	11,782	11,333	-448	17,000	5,218
Contractor Expense	92,855	97,333	4,479	146,000	53,145
Chemical Analysis	4,682	13,333	8,651	20,000	15,318
QA/QC Expense	36,599	40,000	3,401	60,000	23,401
Site Maintenance & Development	550	3,333	2,783	5,000	4,450
Data Network Support & Software	5,091	6,000	909	6,000	909
Technical Workshops	1,078	3,333	2,255	5,000	3,922
Station Trailer Rental	1,440	1,467	27	2,200	760
Equipment Repair & Service	1,647	3,333	1,686	5,000	3,353
Equipment Loans Payable	61,600	61,600	0	92,400	30,800
Portable Trailer Expense	0	2,000	2,000	3,000	3,000
Field Supplies	6,909	13,333	6,425	20,000	13,091
Accommodations & Meals	1,840	4,000	2,160	6,000	4,160
<b>TOTAL AAM EXPENSES</b>	<b>226,073</b>	<b>260,400</b>	<b>34,327</b>	<b>387,600</b>	<b>161,527</b>
<b>AGRICULTURE EXPENSE</b>					
Operations Contractor	47,140	43,333	-3,807	65,000	17,860
Soil Sampling & Analysis	0	5,000	5,000	5,000	5,000
Miscellaneous Expenses	1,800	6,000	4,200	6,000	4,200
<b>TOTAL AGRICULTURE EXPENSE</b>	<b>48,940</b>	<b>54,333</b>	<b>5,393</b>	<b>76,000</b>	<b>27,060</b>
<b>HONORARIUMS</b>					
Land & Co-op Honorariums	2,600	2,200	-400	2,300	-300
<b>TOTAL HONORARIUM EXPENSE</b>	<b>2,600</b>	<b>2,200</b>	<b>-400</b>	<b>2,300</b>	<b>-300</b>
<b>ASSET ACCOUNTS</b>					
Reclamation Trust Fund	2,000	2,000	0	2,000	0
WCAS Contingency Account	20,000	20,000	0	20,000	0
<b>TOTAL ASSET ACCOUNTS</b>	<b>22,000</b>	<b>22,000</b>	<b>0</b>	<b>22,000</b>	<b>0</b>
<b>TOTAL EXPENSE</b>	<b>441,396</b>	<b>476,267</b>	<b>34,871</b>	<b>692,400</b>	<b>251,004</b>
<b>SURPLUS (DEFICIT)</b>	<b>328,121</b>			<b>0</b>	

West Central Airshed Society - EPCOR/TRANSALTA  
 Statement of Revenue & Expenditures  
 As at August 31, 2005

	Year-to-Date		Total Budget For Year	Balance in Budget
	Actual to Date	Budget Variance		
<b>FUNDING</b>				
Epcor Operating Agreement	47088		68309	21221
TransAlta Operating Agreement	124750		204927	80177
<b>TOTAL FUNDING</b>	<b>171,838</b>		<b>273,236</b>	<b>101,398</b>
<b>EXPENDITURES</b>				
Office & Administration	4300	5667	8500	4200
QA/QC Data Reporting		1367		
<b>TOTAL OFFICE &amp; ADMIN EXPENSES</b>	<b>4,300</b>	<b>5,667</b>	<b>8,500</b>	<b>4,200</b>
<b>AMBIENT AIR MONITORING</b>				
AAM Equip Loan Payments & Interest	88717	89200	133800	45083
Utilities Expense	6107	8000	12000	5893
Contractor Expense	40625	43667	65500	24875
Chemical Analysis Passive Program	14188	16224	24336	10148
Site Maintenance	333	3333	5000	4667
Insurance	10412	6067	9100	-1312
DAS Licensing Fee	909	2000	2000	1091
Field Supplies	3374	8000	12000	8626
<b>TOTAL AMBIENT AIR MONITORING</b>	<b>164,665</b>	<b>176,491</b>	<b>263,736</b>	<b>99,071</b>
<b>HONORARIUMS</b>				
Land Honorariums	1000	1000	1000	0
<b>TOTAL HONORARIUMS</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>0</b>
<b>TOTAL EXPENSE</b>	<b>169,965</b>	<b>183,157</b>	<b>273,236</b>	<b>103,271</b>
<b>SURPLUS (DEFICIT)</b>	<b>1,872</b>	<b>13,192</b>	<b>0</b>	<b>0</b>

Attachment C

2006 WCAS DRAFT BUDGET

**REVENUE**

Membership Fees	\$718,973	
Network cost Sharing	500	
Weldwood Operating Agreement	14,352	
<b>TOTAL 2004 FORECASTED REVENUE</b>		<b>\$733,825</b>

**EXPENSES**

**OFFICE & ADMINISTRATION**

Administration Expenses	\$ 85,000	
Office Support	2,500	
Accounting & Legal	4,000	
Bank & Credit Card Charges	1,125	
Bank Loan Interest	15,000	
Board Expenses & Meetings	9,000	
Other Meeting Expense	2,000	
Miscellaneous Expense	500	
Website Development & Maintenance	7,000	
Communication Expense	30,000	
Computer Software & Accessories	2,000	
Insurance	25,000	
Office Equipment Rental	6500	
Office Rental	10000	
Office Supplies	6,000	
Tel, Fax, Internet	10,000	
Grants, Donations, & Contributions	15,000	
<b>TOTAL OFFICE &amp; ADMIN EXPENSE</b>	<b>\$230,625</b>	

**AMBIENT AIR MONITORING**

Utilities Expense	20,000	
Contractor Expense	156,000	
Chemical Analysis	10,800	
QA/QC Expense	69,000	
Site Maintenance & Development	5,000	
Technical Workshops	5,000	
Trailer Rental	0	
Equipment Repair & Rental	5,000	
Data Network Support & Software & Licensing Agreement	7,000	
Portable Trailer Expense	3,000	
Bank Loans Payable	92,400	
Field Supplies	20,000	
Accomodations & Meals	6,000	
<b>TOTAL AAM EXPENSE BUDGET</b>	<b>\$399,200</b>	

**AGRICULTURE EXPENSE**

Science Advisory Contractors		
Diagnostic Contractors		
Operations Contractor	65,000	
Miscellaneous Expense	6,000	
Soil Sampling & Analysis	5,000	
<b>TOTAL AGRICULTURE EXPENSE BUDGET</b>	<b>\$76,000</b>	

**HONORARIUMS**

Land & Co-op Honorariums	3,000	
<b>TOTAL HONORARIUM BUDGET</b>	<b>\$3,000</b>	

**ASSET ACCOUNTS**

Reclamation Trust Fund	2,000	
WCAS Contingency Account	20,000	
<b>TOTAL ASSET ACCOUNT BUDGETS</b>	<b>\$22,000</b>	

<b>TOTAL BUDGET PROPOSAL</b>		<b>\$ 730,825</b>
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**Attachment E**

September 22, 2005

Bob Scotten  
Program Manager  
West Central Airshed Society

Greg Swain  
Senior Technologist  
WCAS

**Bob:** I wanted to describe to you some of the issues facing the Technical team in regards to our interface with the Alberta Environment Audit team over the last year as highlighted by our most recent audit.

We carry our calibration equipment, including calibrators, flow meters, zero air generators and calibration cylinders to Alberta Environment at least once a year and often twice. Each new shipment of calibration gases is crosschecked with AENV before being deployed in the field. Our goal is to operate, as closely as possible, to the same standards as those used by AENV. Following is a fairly detailed description of several parameters.

**SO2:** During the early parts of the audit, (Jeff travelling with Al Clark and Bryan with Bruce Laing) I was on the phone regularly with each team. Preliminary results coming back indicated that the SO2 analyzers were out by a factor of approximately 0.82 at TM, VG and CC. Having completed the validation of our gases and calibrators on May 4, I was unable to imagine how we could be so far out. The attached draft copies of the audit of those three stations state the audit cylinder should have been 6.2 ppm, not the 7.4 ppm originally used, and correction factors of 0.96 or better were the final result at all three stations.

The failure of the analyzer at Meadows was a mechanical failure and was rectified immediately.

**TRS:** The TRS analyzer at Hinton failed the response time component of its audit. This was my fault. My understanding of this analyzer's behaviour in a pulp mill environment is improved. That being said, the history of the calibration gas certification and the audit of this location have been less than stellar.

Cylinder FF 27165    Manufacturer's Stated Concentration: 10.1 ppb H2S

Certification Date	Old Value	New Value	Correction Factor
October 1, 2004	10.1	8.1	0.802
May 4, 2005	8.1	9.38	1.158

Using these 3 very different cylinder concentrations for the same cylinder, sample calculations using nominal flow rates of 45 ccm for Cylinder Flow and 5.0 lpm for Total Flow would yield the following results for the calibrator output:

$$(\text{Cylinder Concentration}) \times (\text{Cylinder Flow}) / (\text{Total Flow}) = (\text{Output Concentration})$$

Cylinder Concentration	Output Concentration	Correction Factor
8.1 ppm	72.9 ppb	0.802
9.38 ppm	84.42 ppb	0.929
10.1 ppm	90.9 ppb	1.000

These are some pretty large differences. By disregarding any cross-checking performed by AENV at the McIntyre Center in Edmonton and returning to the manufacturer's stated concentration of 10.1, and the auditor repairing a leak to his calibrator as described in his letter to West Fraser Pulp, the audit of June 21, 2005 gave an average correction factor of 1.027 (allowed 0.85 to 1.15).

It would be very wrong to assume that manufacturer's stated concentrations should be used in every case. The potential for differences to occur between our field standards and those used by AENV is huge. The world of permeation devices, NIST standards, EPA Protocol standards and Certified standards is filled with small differences that tend to compound themselves, which is why our focus is to confirm our standards with those of AENV. AENV's moving target described above lends a new level of difficulty to the problem that I'm not sure has been solved yet.

**Ozone:** The Ozone calibrator is a transfer standard that generates the same amount of ozone if the mass flow rate and the lamp voltage are held to a constant value. I have never seen a lamp increase its output as it ages, yet the following table suggests differently. The last certification, following the audit, returns the calibrator to an expected aging process.

Certification Date	Old Value	New Value	Correction Factor
January 13, 2004	132.0	131.1	0.993
February 17, 2005	131.1	137.1	1.046
June 16, 2005	137.1	130.2	0.950

The following is an excerpt from my log notes following the apparent Ozone analyzer failure at Tomahawk:

"June 8, 2005

Challenged O3 analyzer following the audit. Using the Teco 165, for a calculated value of 137.1 I got 138.1. Using GPT ozone, for a calculated value of 119.8 I got 124.0."

Assuming the certification value of 137.1 is wrong, which the GPT result confirms, the deviation would be in the order of 5%, not the 21% stated by the audit. Usually when audit values are different from those obtained by the technical team, a clear understanding of the reason(s) for the differences is apparent. I am unable to validate the findings of the audit in this case.

**Relative Humidity:** The Relative Humidity probes at Carrot Creek and Breton were described as being 25% (relative) out. The probe at Carrot Creek was removed and sent back to the manufacturer for re-certification. The attached calibration sheet indicates a variance of 2.7% (absolute) at an RH of 25 %, which is outside manufacturer's tolerance and has been rectified. The sensor from Breton will be subjected to more rigorous testing on its as-received status, as the manufacturer has not experienced this type of drift on a relatively new sensor before.

I hope this provides some insight into the challenges that we, as a technical team, are faced with that may not be apparent in the AENV audit document. We work very diligently to ensure the data is of the highest quality. I believe that our relationship with AENV is a positive one; that we learn from their wider knowledge base and years of experience. They have kindly offered and we have accepted two newer model Ozone analyzers to replace the ones now on loan to us. The AENV audit team's willingness to investigate areas of disagreement shows a high level of professionalism and willingness to share their findings displays integrity. The technical team's goal is to have an audit that returns no issues and we work toward that end.

Sincerely,

Greg Swain

A handwritten signature in black ink, appearing to read 'Greg Swain', with a large, stylized flourish at the end.