

Alberta Newsprint Company

EnviroVista Progress Report

March 2011

As part of the EnviroVista Champion status, the Alberta Newsprint Company (ANC) has committed to reporting on and making public the progress made and planned as per our EnviroVista Champion Commitments under the Champion Level Stewardship Agreement dated June 4th, 2008.

The following is progress on the EnviroVista Champion Commitments as per Schedule A of the Stewardship Agreement (attached).

- (a)
- (i) ANC continues to participate in the Alberta Pulp and Paper Working Group with most activities focus in the Water Quality Sub-Committee. This sub-committee is currently involved in a dissolved oxygen research project with the participation of the University of Alberta, Alberta Environment and NSERC.
 - (ii) In 2010 ANC participated through active representation on the Athabasca Watershed Planning and Advisory Council. Throughout 2010 the Athabasca Watershed Council has been in the process of completing Phase 1 of the Athabasca State of the Watershed Report (SOW). ANC has provided representation on the Technical Committee of the Athabasca Watershed Council to assist in the SOW process.

ANC has also volunteered to be the primary author of the forest industry sector CEP plan as per the Alberta Water Council document; [Recommendations for Water Conservation, Efficiency and Productivity Sector Planning](#) September 2008. The CEP plan will be completed by April 2011. The initial completion date was set for December 2010; however the public consultation process prior to completion has necessitated the new completion date.

(iii) Local Community Support

In 2010, ANC allocated \$10,000 (*donations/advertising/merchandise*) towards the following local initiatives and non-profit organizations:

Donations

MS Mountain Tour	Fallen 4 Marathon Society
Juvenile Diabetes Foundation	Ronald McDonald House Northern Alberta
Kidsport	Northern Alberta Brain Injury Society (NABIS)
Wellspring Family Resource and Crisis Center	2010 Grad Dinner and Dance
NGPS Team for Success	Camp He Ho Ha
Alzheimer's Society	POWER (Whitecourt Drug Coalition)
Royal Canadian Legion	Hilltop High School COOL Program
Heart and Stroke Foundation	Mayerthorpe COOL Camp
University of Alberta Hospital Foundation	Swan Hills Nursery School
Spring into Action Conference	Canadian Cancer Society
Whitecourt Rotary Music Festival	Hilltop Humanitarian Society
Air Cadets 721 Hawk Squadron	Friends of Whitecourt Society
Whitecourt Boys & Girls Club Show Fund	

Advertising

Enviro Kids Guide	SOS Children's Safety Magazine
The Hospital Activity Book for Children	Native Journal
Whitecourt Taekwondo	Whitecourt Star (Annual Donation Ad)
Community Drug Alert (SMRT)	Teenage Survival Handbook
WOR Review (Nat'l Wall of Remembrance Assoc.)	

Merchandise

Mayerthorpe Ladies Rebels Hockey	RCMP (Anthony Gordon Golf Classic)
Bob Deathridge Memorial Hockey Tournament	Hotshots Hockey Tournament
Splash & Dash	

ANC is strongly committed to the support of local organizations, and to the reduction and minimization of waste. ANC has been able to combine both of these efforts by collecting/recycling beverage containers and donating all the proceeds. In 2010, ANC collected and distributed \$2,297.25 to the following organizations:

Whitecourt Veterinary Clinic and Hilltop Vet Clinic (WHARF)

Christmas Donations

During each holiday season, the owner of ANC has personally donated funds to those in need. In 2010, our owner distributed a total of \$20,000 to the following organizations:

Whitecourt Interagency Food Bank	Whitecourt Christmas Hamper
Tennille's Hope Kommunity Kitchen	Lorne's Blanket (homeless shelter)
Whitecourt Boys and Girl's Club	

(iv)

- A. ANC continues to be an active member of the Whitecourt Chamber of Commerce.
- B. ANC continues as a regular participant of the Regional Forestry Advisory Committee.
- C. ANC continues to support a mutual aid agreement in conjunction with the Town of Whitecourt.

(b)

- (i) ANC is currently certified under the AFPA Forest Care Program. ANC was recently audited by an external consultant and obtained re-certification in December 2010.

<http://www.albertaforestproducts.ca/industry/forestcare.aspx>

(c)

- (i) ANC was one of the developing partners in the creation of the Standards and Guidelines for the Land Application of Mechanical Pulp Mill Sludge to Agricultural Land, AENV, February 1999, as amended. <http://environment.gov.ab.ca/info/library/7267.pdf>

ANC is committed to ensuring that all sludge is land applied in an environmentally sound manner.

- (ii) ANC strives to ensure compliance of landowners utilizing the sludge by having the landowner complete a Sludge User Package. Information required in the package also includes confirmation from the landowner that they have read and understood the proper use of the material in conformance with the Standards and Guidelines for the Land Application of Mechanical Pulp Mill Sludge to Agricultural Land, AENV, February 1999, as amended.

(iii)

- A. ANC continues to conduct research with the Alberta Research Council (ARC) and other mechanical mills for uses in well site reclamation and remediation.
- B. During 2010, ANC conducted joint research with Alberta Innovates Technology Futures with regards to Biochar production utilizing sludge and wood chips. Biochar production using these materials could be utilized in the horticultural and agricultural markets.

- C. Odour from the sludge is best controlled by the landowner immediately incorporating the sludge after spreading. ANC encourages landowners in this practice.

- D. Moisture content of the sludge has a great impact on hauling costs. ANC has solicited the support of PAPRICAN, suppliers and consultants to find methods of decreasing the moisture content of the sludge.

Work in 2010 included utilizing optical sensors for polymer control in the sludge dewatering equipment to assist in optimizing the process.

(d)

(i) ANC is continually exploring methods of improving all aspects of mill operations. After the success of the low energy microbubble diffuser trial in 2009/10, ANC decided to purchase the diffuser. The diffuser will be permanently installed in the spring of 2011. The operation of this equipment has shown a reduction in energy costs while helping us achieve ANC's lowest historic discharges of BOD and TSS. In attempts to reduce phosphorus discharges, an in-house measurement of total phosphorus is now conducted on the influent. This value will enable ANC to dose the correct amount phosphoric acid for optimal treatment while avoiding overfeeding or running nutrient deficient.

Energy management at ANC continues to be a major focus of many efforts involving all aspects of the operation.

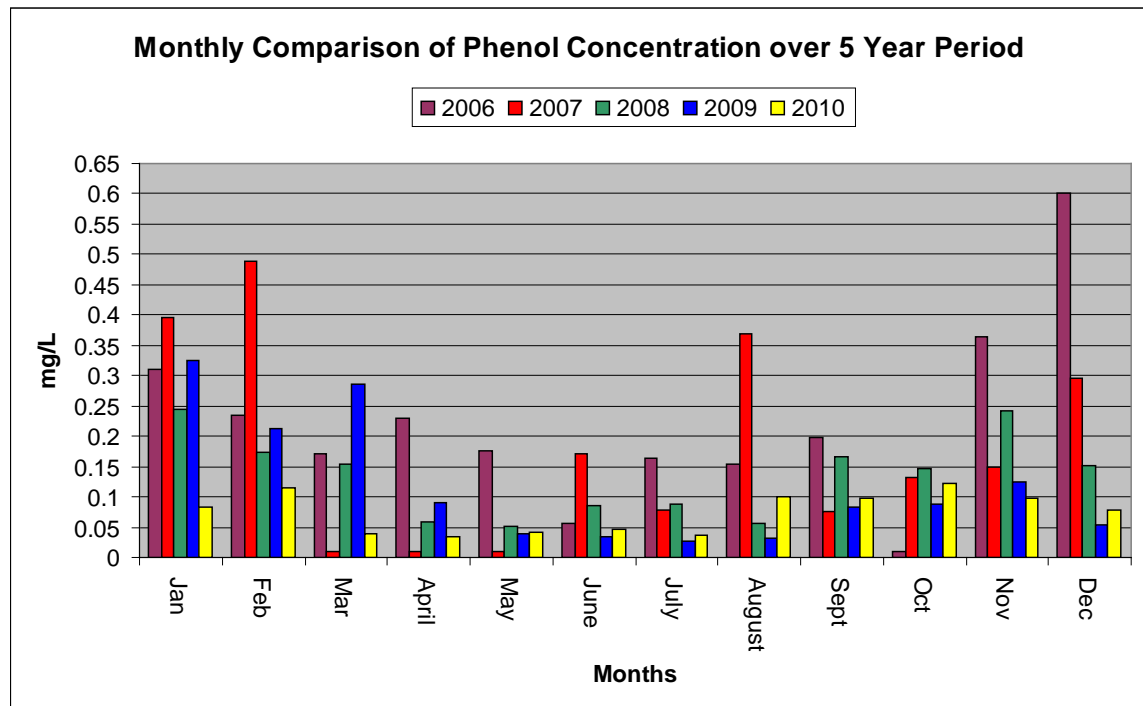
In January 2011, ANC was awarded first place in the Pulp and Paper Technical Association Energy Conservation Award for a paper titled "A chain reaction of energy reduction in boiler feedwater pump" by Surendra Singh, ANC Energy Manager.

In 2010 ANC achieved an overall reduction of GHG emissions of about **20%** over 2009. Since 2000 ANC has reduced emissions by almost **45%**.

Water usage at ANC also continues to be a area of major focus with usage in 2010 being one of the lowest since start-up in 1990. Please see water usage graph below for details.

(ii) ANC continues to monitor phenol discharges; however, the following graph shows that phenol discharges vary throughout the year and are not steadily

increasing. In an attempt to reduce energy costs in 2007, ANC decreased the number of operational recirculation pumps within the tertiary treatment basin from 2 to 1. Consequently, levels of aeration and mixing were provided to only one side of the tertiary treatment basin. This energy reduction strategy may have contributed to the varying discharges of phenols; as anaerobic conditions can promote higher concentrations of phenols. In attempts to achieve both an energy reduction and a low phenol discharge in 2009, ANC tried a different approach by cycling each of the recirculation pumps every 12 hours. This approach was very successful, and enabled ANC to achieve a 50 % energy reduction while still achieving low phenol discharges. In June 2010, ANC pushed the envelope further by cycling each recirculation pump 6 hours on and 6 hours off. This latest approach appears extremely successful by achieving the lowest yearly average of phenol discharges in the last five years as well as reducing energy costs by 75%.



- (iii) ANC is currently in the process of updating the Best Management Practices Plan (BMP) to include items A to J by May 1, 2011.
- (iv) The updated BMP will be implemented as authorized in writing by the Director.
- (v) Annual reviews of the BMP will be conducted.
- (vi) Green Procurement Plan activities at ANC in 2010 included acquiring information and references which will help lead in the creation and implementation of a successful Green Procurement system at ANC.
- (vii) A review of the storage and handling practices for chemicals used in the mill will be conducted in 2011.
- (viii) Ongoing environmental training continues to be an important aspect at ANC to ensure that all operations continue to be successful. In November

2010, Marshall Environmental Training and Consulting Group, Inc (METC) was brought onsite to provide industrial activated sludge operational training. This two day course was an informative introduction of activated sludge operations for 6 new employees and a great refresher course for our more experienced employees. Additional training occurring in 2010 included:

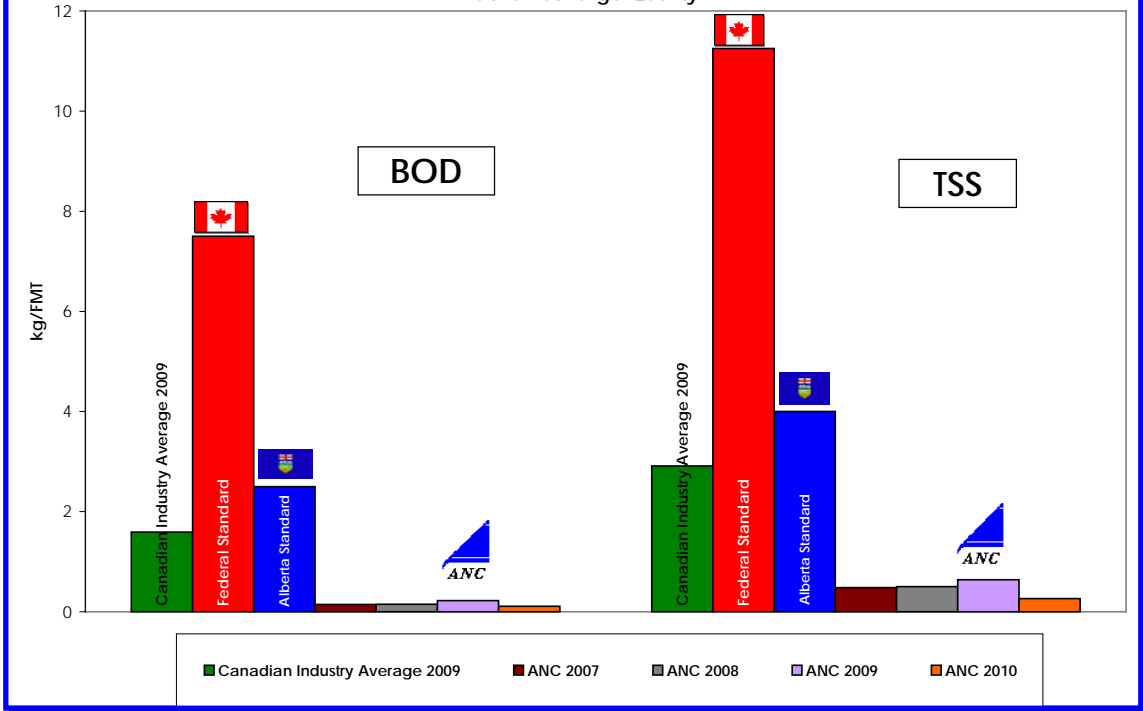
- Advanced Filamentous Bacteria Identification
 - Biosolids Handling
 - Total Organic Carbon Measurement
 - Total Nitrogen/Phosphorus Measurement
- (ix) The METC industrial activated sludge training, provided in November 2010, was also made available to both Alberta Environment and Environment Canada staff. Two members, one from each government agency, were available to participate in the training.

(e) ANC strives to reduce emission levels and continually improve each year. In 2010, ANC exceeded 3 of our 5 EnviroVista Champion internal performance targets.

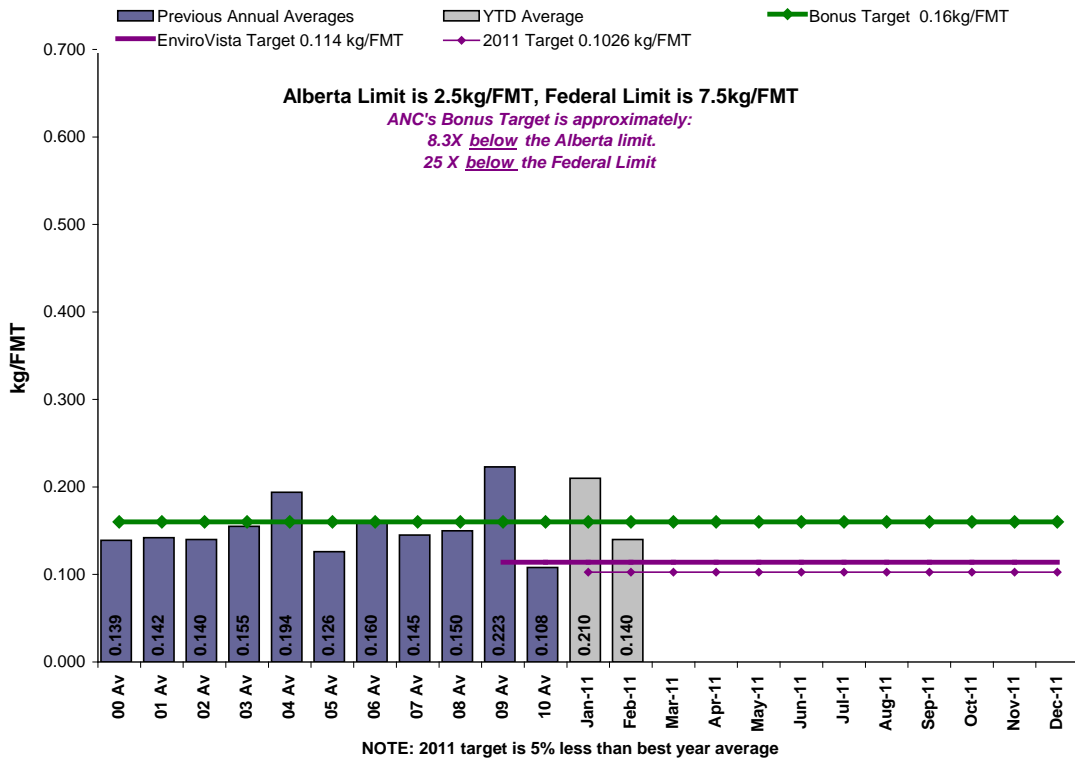
- BOD Target 0.114 kg/FMT - **Achieved 0.108 kg/FMT**
- TSS Target 0.346 kg/FMT - **Achieved 0.263 kg/FMT**
- Water usage Target 22.4 m³/t - **Achieved 22.0 m³/FMT**

The following graphs depict these internal performance targets and display both our past and present performance achievements regarding these parameters.

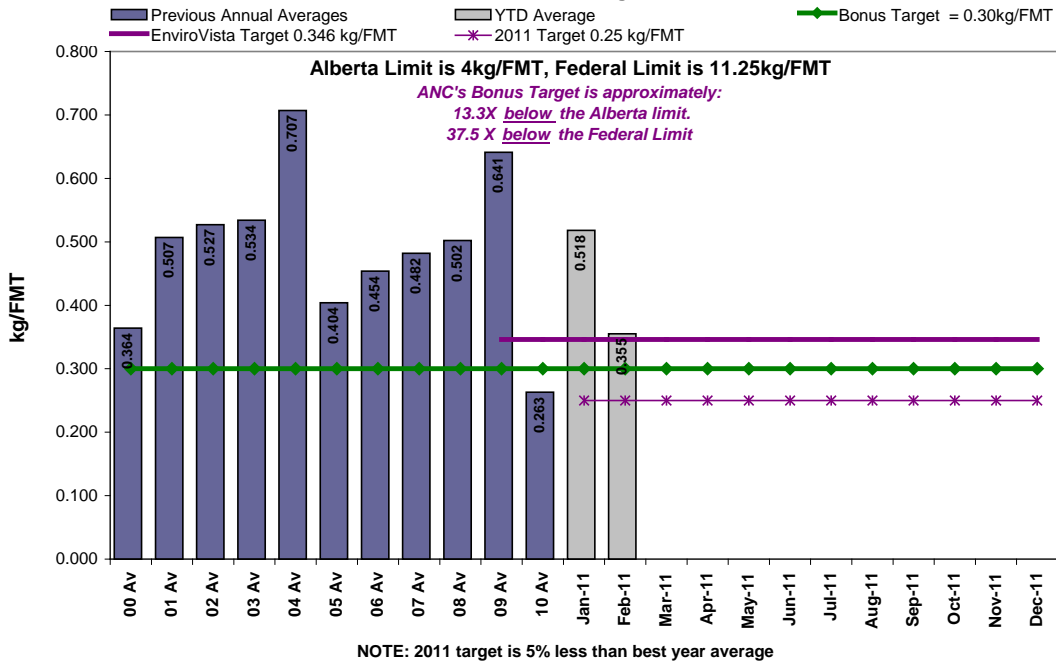
ALBERTA NEWSPRINT COMPANY
Effluent Discharge Quality



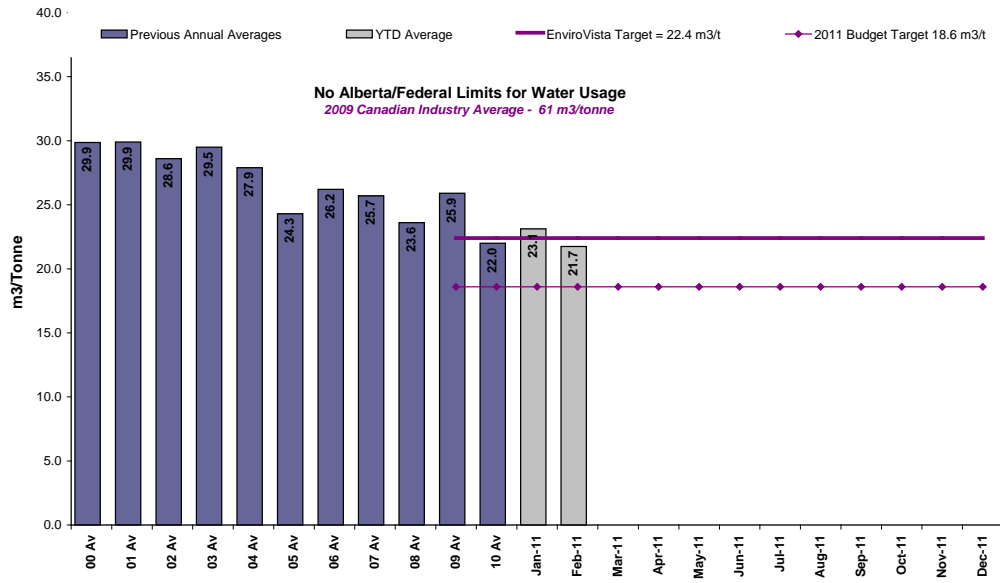
**Alberta Newsprint Company
BOD5 Discharge**



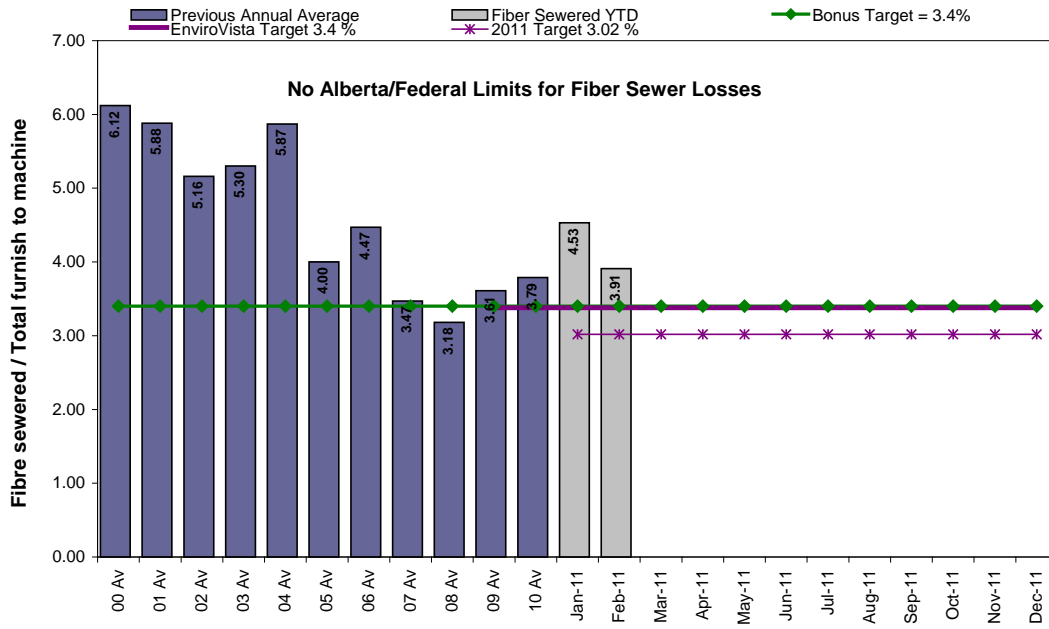
**Alberta Newsprint Company
TSS Discharge**



Alberta Newsprint Company
Water Usage - cubic meters of water per finished metric tonne of paper

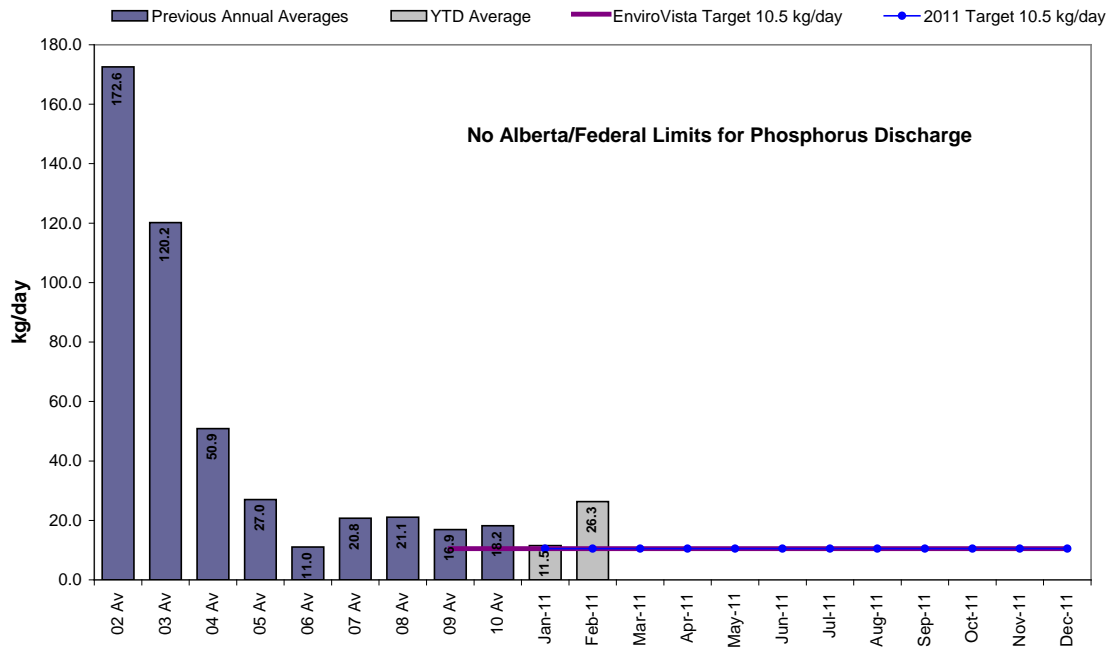


Alberta Newsprint Company
Fiber Sewer Loss



NOTE: 2011 target is 5% less than best year average

**Alberta Newsprint Company
Phosphorus Discharge**



NOTE: 2011 target is 5% less than best year average

(f) ANC's external web site is located at www.albertanewsprint.com. Included on this web site is information regarding the environmental program and activities at ANC.

(g) This progress report fulfills this commitment.

Notable achievements in 2010

- AFPA Forest Care Program Mill Re-Certification - Achieved in 2010
- ANC Energy Team has won 1st prize at PAPTAC (Pulp and Paper Technical Association of Canada) “Energy Conservation Award” in 2010.
- 2010 Newsprint Supplier of the Year Award - Gannett
- ANC Customer Survey 2010 – ANC ranked #1 in 92.5% of our customer responses
- In 2010 ANC ranked #1 in North America for newsprint productivity per unit width for a single winder newsprint machine.
- ANC was recognized as a finalist in the November 2010 ASTech awards for research.
- ANC Woodlands in 2010 achieved renewal of ISO 14,001 Environmental Management System Certification

For further information please contact ANC at 1-780-778-7000 or visit us at www.albertanewsprint.com.

Schedule A – EnviroVista Champion Commitments

ANC commits to meeting the following EnviroVista Commitments:

- (a) The following, at a minimum, with respect to public involvement and consultation:
 - (i) Participating as a stakeholder in the Alberta Pulp and Paper Working Group. Participation means but is not limited to: providing financial support, in-kind support, scientific guidance, and general input to Alberta Environment in cooperation with other pulp mills in Alberta;
 - (ii) Participation in Alberta Water for Life activities where applicable including participation in Athabasca Watershed Planning and Advisory Council;
 - (iii) Support the local community through donations or in-kind support of local initiatives or non-profit organizations; and
 - (iv) Continuing to be an active member of:
 - A. Whitecourt Chamber of Commerce;
 - B. Regional Forestry Advisory Committee; and
 - C. Mutual Aid Agreement with the Town of Whitecourt;
- (b) Maintain an Environmental Management System that is recognized by Alberta Environment:
 - (i) Certification in the Alberta Forest Products Association ForestCare Program; or
 - (ii) An equivalent recognized Environmental Management System;
- (c) The following, at a minimum, with respect to the land application of pulp mill sludge:
 - (i) For agricultural land, ensure that the land application of pulp mill sludge is in accordance with the Standards and Guidelines for Land Application of Mechanical Pulp Mill Sludge to Agricultural Land, AENV, February 1999, as amended;
 - (ii) Ensure that the land owners comply with the standards and guidelines under subclause (c)(i) above, to prevent any negative environmental impacts; and
 - (iii) Continuous research on pulp mill sludge including, but not limited to:
 - A. Landspreading on non-agricultural land;
 - B. Alternative uses;
 - C. Odour control; and
 - D. Moisture content;

- (d) The following, at a minimum, with respect to continuous improvement:
- (i) To develop better control technologies/processes for BOD, TSS, greenhouse gases, phosphorous, water usage and sewer loss;
 - (ii) Research reasons for historical trend increase in phenol discharge;
 - (iii) To develop and submit to the Director a Best Management Practices Plan by May 1, 2009 to include at a minimum, the following:
 - A. In-house lab QA/QC program;
 - B. Fugitive emissions management plan;
 - C. Overall site plan showing all the air emission sources;
 - D. Operational manual;
 - E. Waste management procedures;
 - F. Management plan for land application of pulp sludge on non-agricultural land;
 - G. Waste minimization plan;
 - H. Open burn procedures;
 - I. Dredging procedures; and
 - J. Groundwater sampling procedures;
 - (iv) Implement the Best Management Practice Plan referred in subclause (d)(iii) as authorized in writing by the Director;
 - (v) Annual review and update of the Best Management Practice Plan referred in subclause (d)(iii);
 - (vi) To develop a green procurement plan;
 - (vii) At least once every three years, review of the storage and handling practices for chemicals used in the pulp and paper manufacturing process including but not limited to: inspections, risk assessments and incident reports;
 - (viii) Provide ongoing environmental training related to pulp mill operations to ANC staff; and
 - (ix) Provide educational sessions on ANC's newsprint operation to Alberta Environment staff;

- (e) Reducing and maintaining emissions levels to achieve the following internal performance targets:

Parameter	Performance Target
BOD	0.114 kg/FMT
TSS	0.346 kg/FMT
Water Usage	22.4 m ³ /FMT
Sewer Loss	3.4%
Phosphorous	10.5 kg/day

*FMT – finished metric tones of pulp

- (f) Maintaining an external ANC website which includes information on the environmental program and activities at ANC; and
- (g) Preparing and making public, on or before March 31 of each year following the year that the information was collected, submit or present to Alberta Environment, and post on the Plant's website, an annual EnviroVista Progress Report that includes, at a minimum, the status of each of the commitments listed above.